

ANNEX A — ANNEXE A

No. 8940. EUROPEAN AGREEMENT CONCERNING THE INTERNATIONAL CARRIAGE OF DANGEROUS GOODS BY ROAD (ADR). DONE AT GENEVA, ON 30 SEPTEMBER 1957¹

ENTRY INTO FORCE of amendments to annexes A and B, as amended,² to the above-mentioned Agreement

The amendments were proposed by the Government of France and circulated by the Secretary-General to the Contracting Parties on 30 June 1994. They came into force on 1 January 1995, in accordance with article 14 (3) of the Agreement.

Authentic texts of the amendments: English and French.

Registered ex officio on 1 January 1995.

(The authentic French text of the amendments appears in volume 1846 — Le texte authentique français des amendements paraît dans le volume 1846.)

The text of the amendments reads as follows:

¹ United Nations, *Treaty Series*, vol. 619, p. 77; for subsequent actions, see references in Cumulative Indexes Nos. 9 and 11 to 21, as well as annex A in volumes 1259, 1279, 1283, 1297, 1344, 1394, 1395, 1430, 1489, 1505, 1553, 1580, 1663, 1679, 1696, 1701, 1719, 1723, 1724, 1732, 1775, 1777 and 1843.

² *Ibid.*, vol. 731, p. 3, and annex A in volumes 774, 828, 883, 907, 921, 922, 926, 951, 982, 987, 1003, 1023, 1035, 1074, 1107, 1161, 1162, 1259, 1279, 1283, 1297, 1344, 1395, 1489, 1553, 1663 and 1701.

EUROPEAN AGREEMENT CONCERNING THE INTERNATIONAL CARRIAGE
OF DANGEROUS GOODS BY ROAD (ADR)
WITH ANNEXES AND PROTOCOL OF SIGNATURE, DONE AT GENEVA
ON 30 SEPTEMBER 1957

Amendments proposed by the Government of France to Annexes A and B,
as amended, to the above-mentioned Agreement

ANNEX A of ADR

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PART II.

Amend the entry for Class 6.2 to read

"Class 6.2 Infectious substances ... 2650 et seq"

PART III.

Appendix A.1

Replace "flammable solids" with "nitrated mixtures of nitrocellulose,
self-reactive substances"

Appendix A.3

Amend the title A as follows:

"A. Tests relating to flammable liquids of Classes 3, 6.1 and 8

(Test for determining flash-point,
Test for determining peroxide content,
Test for determining combustibility)"

Add:

"G. Tests for determining the ecotoxicity, persistence and
bioaccumulation of substances in the aquatic environment for assignment
to Class 9."

Part I. DEFINITIONS AND GENERAL PROVISIONS

2002 (1) Delete the following and add it to fourth sentence:

"6.2" and "2651".

(2) Amend the entry for Class 6.2 to read:

"Class 6.2 Infectious substances Non-restrictive"

2002(3)(a) Sixth subparagraph, amend as follows:

"the total quantity of dangerous goods (as a volume or as a gross mass or as a net mass and, in addition, in the case of explosive substances and articles of Class 1, as a total net mass of explosive contents).

NOTE 1: This information is not required in the case of uncleaned empty packagings, containers or tanks.

NOTE 2: In the case of the application of marginal 10 011, the quantities of dangerous goods carried per transport unit shall be expressed as a gross mass".

(8) 1. Amend (a) to read as follows:

(a) A solution or mixture containing a dangerous substance listed by name in ADR together with one or more non-dangerous substances, shall be regarded as the dangerous substance listed by name, unless:

1. The solution or mixture is specifically listed by name elsewhere in ADR;

or

2. It is quite clear from the item for the dangerous substance that it is applicable only to the pure or technically pure substance; or

3. The class, physical state or packing group (letter), of the solution or mixture is different from that of the dangerous substance.

2002 (8) For such solutions and mixtures, the word "**solution**" or "**mixture**"
(cont'd) shall then be added as part of the name in the transport document for the purposes of clarity in the description, for example, "**acetone solution**".

If the class, physical state or packing group are different from that for the pure substance, the solution or mixture shall be assigned to an appropriate n.o.s. entry, depending on the degree of danger.

2. Amend (b) 2.1 to read as follows:

"2.1 If there is no predominant danger, classification shall be based on the following order of precedence:

substances and articles of Class 1

substances and articles of Class 2

self-reactive and related substances and explosive substances in non-explosive state (wetted or phlegmatized explosive substances) of Class 4.1

pyrophoric substances of Class 4.2

substances of Class 5.2

substances of Class 6.1 or Class 3 which, on the basis of their inhalation toxicity, are to be classified under letter (a) of the various items (excluding substances, solutions and mixtures (such as preparations and wastes) meeting the classification criteria of Class 8 and having an inhalation toxicity of dust and mists (LC_{50}) in the range of group (a) and toxicity through oral ingestion or dermal contact only in the range of group (c) or less; such substances, solutions and mixtures (such as preparations and wastes) shall be assigned to Class 8)

infectious substances of Class 6.2."

2002 (8) (cont'd)

(cont'd) 3. Amend 2.3.2 to read as follows:

"2.3.2 Classification under an n.o.s. entry or an item of a class determined in accordance with 2.3.1 on the basis of the danger characteristics of the various components of the solution or mixture. Classification under a general n.o.s. entry is permitted only when classification under a specific n.o.s. entry is not possible.

NOTE: Examples for the classification of mixtures and solutions under classes and items:

A phenol solution of Class 6.1, 14° (b), in benzene of Class 3, 3° (b) is to be classified in Class 3, 3° (b); this solution is to be classified under the entry 1992 flammable liquid, toxic, n.o.s., Class 3, 19° (b), by virtue of the toxicity of the phenol.

A solid mixture of sodium arsenate of Class 6.1, 51° (b) and sodium hydroxide of Class 8, 41° (b), is to be classified under the entry 1557 arsenic compound, solid, n.o.s. in Class 6.1, 51° (b).

A solution of crude or refined naphthalene of Class 4.1, 6° (c) in petrol of Class 3, 3° (b), is to be classified under the entry 3295 hydrocarbons, liquid, n.o.s. in Class 3, 3° (b).

A mixture of hydrocarbons of Class 3, 31° (c), and of polychlorinated biphenyls (PCB) of Class 9, 2° (b), is to be classified under the entry 2315 polychlorinated biphenyls in Class 9, 2° (b).

A mixture of propyleneimine of Class 3, 12°, and polychlorinated biphenyls (PCB) of Class 9, 2° (b), is to be classified under the entry 1921 propyleneimine, inhibited in Class 3, 12°.

Table (See marginal 2002 (8)(b) 2.3.1)

Class and letter	41a	41c	42a	42b	42c	43a	43b	43c	51a	51b	51c	61a ^a DERMAL	61a ^a ORAL	61b ^a	61c ^a	8a1 ^a	8a1 ^a	8c1 ^a	9
3a1 ^a	SOL LIO SOL 41 ^a 3a	LIO SOL 41 ^a 3a	LIO SOL 42 ^a 3a	LIO SOL 42 ^a 3a	LIO SOL 42 ^a 3a	LIO SOL 43 ^a 3a	LIO SOL 43 ^a 3a	LIO SOL 43 ^a 3a	SOL LIO SOL 51 ^a 3a	SOL LIO SOL 51 ^a 3a	SOL LIO 51 ^a 3a	3a1	3a1	3a1	3a1	3a1	3a1	3a1	3a1
3a1 ^a	SOL LIO SOL 41 ^a 3a	LIO SOL 41 ^a 3a	LIO SOL 42 ^a 3a	LIO SOL 42 ^a 3a	LIO SOL 42 ^a 3a	LIO SOL 43 ^a 3a	LIO SOL 43 ^a 3a	LIO SOL 43 ^a 3a	SOL LIO SOL 51 ^a 3a	SOL LIO SOL 51 ^a 3a	SOL LIO 51 ^a 3a	3a1	3a1	3a1	3a1	3a1	3a1	3a1	3a1
3a1 ^a	SOL LIO SOL 41 ^a 3a	LIO SOL 41 ^a 3a	LIO SOL 42 ^a 3a	LIO SOL 42 ^a 3a	LIO SOL 42 ^a 3a	LIO SOL 43 ^a 3a	LIO SOL 43 ^a 3a	LIO SOL 43 ^a 3a	SOL LIO SOL 51 ^a 3a	SOL LIO SOL 51 ^a 3a	SOL LIO 51 ^a 3a	3a1	3a1	3a1	3a1	3a1	3a1	3a1	3a1
41b			42b	42b	42b	43b	43b	43b	51b	51b	51b	61b	61b	61b	61b	8a1	8a1	8c1	9
41c			42c	42c	42c	43c	43c	43c	51c	51c	51c	61c	61c	61c	61c	8a1	8a1	8c1	9
42b			42b	42b	42b	43b	43b	43b	51b	51b	51b	61b	61b	61b	61b	8a1	8a1	8c1	9
42c			42c	42c	42c	43c	43c	43c	51c	51c	51c	61c	61c	61c	61c	8a1	8a1	8c1	9
43a			43a	43a	43a	43a	43a	43a	51a	51a	51a	61a	61a	61a	61a	8a1	8a1	8c1	9
43b			43b	43b	43b	43b	43b	43b	51b	51b	51b	61b	61b	61b	61b	8a1	8a1	8c1	9
43c			43c	43c	43c	43c	43c	43c	51c	51c	51c	61c	61c	61c	61c	8a1	8a1	8c1	9
51a ^a									51a	51a	51a	61a	61a	61a	61a	8a1	8a1	8c1	9
51b ^a									51b	51b	51b	61b	61b	61b	61b	8a1	8a1	8c1	9
51c ^a									51c	51c	51c	61c	61c	61c	61c	8a1	8a1	8c1	9
61a ^a DERMAL									61a	61a	61a	61a	61a	61a	61a	8a1	8a1	8c1	9
61a ^a ORAL									61a	61a	61a	61a	61a	61a	61a	8a1	8a1	8c1	9
61b ^a DERMAL									61b	61b	61b	61b	61b	61b	61b	8a1	8a1	8c1	9
61b ^a ORAL									61b	61b	61b	61b	61b	61b	61b	8a1	8a1	8c1	9
61c ^a DERMAL									61c	61c	61c	61c	61c	61c	61c	8a1	8a1	8c1	9
61c ^a ORAL									61c	61c	61c	61c	61c	61c	61c	8a1	8a1	8c1	9

SOL = Solid substances and mixtures
 LIO = Liquid substances, mixtures and solutions
 DERMAL = Dermal toxicity
 ORAL = Oral toxicity
 INHAL. = Inhalation toxicity

Footnotes for the table in marginal 2002 (8)

1/ These mixtures and solutions may have explosive properties, in which case they are not to be accepted for transport unless they meet the requirements of Class 1.

2/ Solutions or mixtures containing substances of Class 3, marginal 2301, 6*, 12* or 13* shall be placed in that Class under those items.

3/ Solutions or mixtures containing substances of Class 6.1, marginal 2601, 1* to 5* shall be placed in that Class under those items.

4/ Solutions or mixtures containing substances of Class 8, marginal 2801, 6*, 14* and 15* shall be placed in that Class under those items.

5/ Assignment to a class and a letter of an item may be based on the test procedures (see Appendix A.3).

6/ Solutions or mixtures containing substances of Class 9, marginal 2901, 2* (b) shall be placed in that Class under that item, provided they do not also contain substances mentioned in footnotes 1 to 4 above. If they do contain such substances, they shall be classified accordingly.

7/ There is at present no test criterion for determining the degree of danger (packing group) for liquids of Class 5.1. The degree of danger (packing group) for such substances can be determined only by comparison with substances listed by name under an item and a group designated by the letters (a), (b) or (c).

8/ Class 6.1 for pesticides.

2002 (9), amend to read:

"(9) The consignor ... (unchanged) ... shall certify that the substance presented may be carried by road in conformity with the provisions of ADR and that its condition, treatment and, as appropriate, its packaging, the intermediate bulk container or tank container and the labelling conform to the provisions of ADR."
(Second sentence unchanged.)

Add the following new paragraph (14):

"(14) For the purposes of ADR, substances, solutions and mixtures (such as preparations and wastes) which cannot be assigned to Classes 1 to 8 or 9, 1* to 8*, 13* and 14*, but which may be assigned to Class 9, 11* or 12*, on the basis of the test methods and criteria according to Appendix A.3, section G, marginals 3390 to 3396, shall be considered to be pollutant to the aquatic environment. Solutions and mixtures (such as preparations and wastes) for which classification values conforming to the classification criteria are not available shall be considered to be pollutant to the aquatic environment if the LC_{50} ,^{g/} evaluated according to the following formula:

$$LC_{50} = \frac{LC_{50} \text{ of the pollutant} \times 100}{\text{percentage of the pollutant (by mass)}}$$

is equal to or lower than:

(a) 1 mg/l,

(b) 10 mg/l if the pollutant is not readily degradable or, being degradable, has a $\log Pow \geq 3.0$.

NOTE: For substances of Classes 1 to 8 and Class 9, 1* to 8*, 13* and 14*, which are pollutant to the aquatic environment according to the criteria of Appendix A.3, section G, marginals 3390 to 3396, no additional condition of carriage is applicable.

^{g/} According to the definition contained in marginal 3396.

2003(4) Amend the titles of these Appendices in accordance with the modifications to these appendices:

In the title of Appendix A.1, replace "flammable solids" with "nitrated mixtures of nitrocellulose, self-reactive substances";

In the title of Appendix A.3, amend as follows:

"Tests relating to flammable liquids of Classes 3, 6.1 and 8 (Test for determining flash-point, Test for determining peroxide content, Test for determining combustibility)";

and add at the end:

"tests for determining ecotoxicity, persistence and bioaccumulation of substances in the aquatic environment by assignment to Class 9."

2007 Amend as follows:

"Packages, including intermediate bulk containers (IBCs), which do not entirely meet the packing, mixed packing and labelling requirements of ADR but are in conformity with the requirements for maritime or air transport of dangerous goods 9/ shall be accepted for carriage prior to or following maritime or air carriage subject to the following conditions:

- (a) If the packages or IBCs are not labelled in accordance with ADR, they shall be labelled in accordance with the provisions for maritime or air transport; 9/
- (b) The provisions for maritime or air transport 9/ shall be applicable to mixed packing within a package;
- (c) In addition to the particulars prescribed for ADR, the words 'Carriage under marginal 2007 of ADR' shall be entered in the transport document."

Re-number existing footnote 8/ as 9/.

2010 Insert the following text after the first sentence:

"The period of validity of the temporary derogation shall be not more than five years from the date of its entry into force. The temporary derogation shall automatically come to an end from the date of the entry into force of a corresponding amendment to this annex".

8/ According to the definition contained in marginal 3396.

Part II. LIST OF SUBSTANCES AND SPECIAL PROVISIONS FOR THE VARIOUS CLASSES

CLASS 1. EXPLOSIVE SUBSTANCES AND ARTICLES

- 2100 (6) Add: "1.6 Extremely insensitive articles which do not have a mass explosion hazard. The articles contain only extremely insensitive detonating substances and demonstrate a negligible probability of accidental initiation or propagation."

NOTE: The risk from articles of Division 1.6 is limited to the explosion of a single article.

- (7) Add to "B":

"Some articles, such as detonators for blasting, detonator assemblies for blasting and primers, cap-type, are included, even though they do not contain primary explosives."

Add: "N Articles containing only extremely insensitive detonating substances."

- 2101 In table 1, columns (4) and (5), replace the references to marginal 2103(5) and (6) by references to marginal 2103(6) and (7).

Item 1°

- | | |
|-------------|-------------------------------|
| <u>0029</u> | Column 5: delete "19, 20, 54" |
| <u>0030</u> | Column 5: delete "17" |
| <u>0106</u> | Column 5: insert "56" |
| <u>0360</u> | Column 5: delete "25, 26" |
| <u>0377</u> | Column 5: delete "39, 40" |

2101

(cont'd)

Item 2°

(a) Add:

<u>"0497</u>	<u>Propellant, liquid</u>	1.1C	E159(a)	58
	NOTE: Unless it can be demonstrated by testing that its sensitivity when frozen is no greater than when liquid, the propellant shall remain liquid during normal conditions of transport and not freeze at temperatures above -15 °C.		E159(b)	59
<u>0498</u>	<u>Propellant, solid</u>	1.1C	E22	8,9,10"

Item 3°0271 Column 2: delete "for rocket motors"

Column 5: delete "54"

0273 Delete whole entryItem 4°0118 Amend the name to read: "Hexolite (hexotol), dry ..."0144 NOTE: Amend to read:

"3064 nitroglycerin, solution in alcohol with more than 1 % but not more than 5% nitroglycerin, carried under special conditions of packing, is a substance of Class 3 (see marginal 2301, 6°)"

0393 amend the name to read: "Hexotonal"0411 Column 1: amend to read:

"Pentaerythrite tetranitrate
(Pentaerythritol tetranitrate; PETN)
 with not less than 7% wax, by mass".

2101

(cont'd)

Add:

"0496	Octonal	1.1D	E13	- "
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Item 5:

0042 Columns 4 and 5; read: "E107(a) 57
E107(b) - "

0048 Column 5: add "57"

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0056      Column 4: delete "E 118"  
      Column 4: insert "E 106"  
      Column 5: delete "51"  
      Column 5: insert "49"
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0288 Column 5: add "57"

Item 9°

0196 Column 2: delete "with explosive sound unit"

Item 13°

Q107 Column 5: insert "56"

Item 15°

0328 Column 2: delete "(cartridges, small arms)"

0415 Column 2: delete "for rocket motors", and Column 5: delete "54"

0416 delete whole entry

Item 17°

0283 Columns 4 and 5; read: "E107(a) 57
E107(b) - "

2101

(cont'd)

Item 21°0313 Column 2: delete "with explosive sound unit"0334 Column 5: insert "37"0009)0015) Column 5: add "49"0018)0171)Item 22°0243) Column 5: add "49"0245)Item 250248 Column 5: delete "29"Item 26°0132 Column 4: delete "E 103"

Column 4: insert "E 2"

Column 5: insert "1, 2"

0159 Column 2: replace "35% (mass) water"

with "25% (mass) water"

0203 Column 2: add "explosive" after "n.o.s."

Column 4: delete "E 103"

Column 4: insert "E 21"

Column 5: insert "2"

0343 Column 2: amend the Note as follows:

"For nitrocellulose mixture with not more than 12.6% nitrogen by dry mass with plasticizer, under special conditions of packing, see class 4.1 [marginal 2401, 24°(a)]".

2101

(cont'd)

Add:

"0495	<u>Propellant, liquid</u>	1.3C	E159(a)	58
	NOTE: Unless it can be demonstrated by testing that its sensitivity when frozen is no greater than when liquid, the propellant shall remain liquid during normal conditions of transport and not freeze at temperatures above -15 °C.		E159(b)	59

0499	<u>Propellant, solid</u>	1.3C	E22	8,9,10"
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Item 27°

0272	Column 2: delete "for rocket motors", and Column 5: delete "54"
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0274	Delete whole entry
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0327	Column 2: delete " <u>(cartridges, small arms, blank)</u> " insert "or <u>cartridges, small arms, blank</u> "
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0417	Column 2: insert "or <u>cartridges, small arms</u> "
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Item 30°

0010)

0016)	Column 5: add "49"
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0019)

0254)

0335	Column 5: insert "37"
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Insert the following new entries:

"(1)	(2)	(3)	(4)	(5)
0487	<u>Signals, smoke</u>	1.3G	E 150	12
0488	<u>Ammunition, practice</u>	1.3G	E 102	13, 48, 49
0492	<u>Signals, railway track, explosive</u>	1.3G	E 151	43, 44, 45"

2101

(cont'd)

Item 31°0244) Column 5: add "49"0246)Item 32°0247 Column 5: add "49"Item 34°0249 Column 5: delete "29"Item 35°0255 Column 5: delete "18"0267 Column 5: delete "19, 20, 54"0361 Column 5: delete "25, 26"0378 Column 5: delete "39, 40"Item 37°0338 Column 2: delete "(cartridges, small arms, blank)"Column 2: insert "or cartridges, small arms, blank"0339 Column 2: delete "(cartridges, small arms)"Column 2: insert "or cartridges, small arms"

Add the following new entry:

"(1)	(2)	(3)	(4)	(5)
37°	<u>0491 Charges, propelling</u>	1.4C	E.158	8, 10"

Item 39°0237 Column 5: add "57"

2101

(cont'd)

Add the following new entry:

"(1)	(2)	(3)	(4)	(5)
39°	<u>0494</u> <u>Jet perforating guns,</u> <u>charged oil well,</u> <u>without detonator</u>	1.4D	E 140	- "

Item 43°0197 Column 2: delete "without explosive sound unit"0336 Column 5: insert "37"0297)0300)0301) Column 5: add "49"0303)0362)0363)

Add the following new entry:

"(1)	(2)	(3)	(4)	(5)
43°	<u>0493</u> <u>Signals, railway track,</u> <u>explosive</u>	1.4G	E 151	43, 44, 45"

Item 47°0012 Column 2: delete "(cartridges, small arms)"Column 2: insert "or cartridges, small arms"0014 Column 2: delete "(cartridges, small arms, blank)"Column 2: insert "or cartridges, small arms, blank"0044 Column 5: delete "39, 40"0105 Column 5: add "49"0455 Column 5: delete "19, 20, 54"0456 Column 5: delete "18"

2101 (cont'd)

Item 48°

0482 Add the synonym "(Articles EEI, n.o.s.)"

Add a new item 50°:

(1)	(2)	(3)	(4)	(5)
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"50° ARTICLES CLASSIFIED AS 1.6N

0486	<u>Articles, explosive, extremely insensitive (Articles, EEI)"</u>	1.6N	E 106	49"
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2102(1) Delete "other than cradles and crates"

2103 In the title, delete "for substances and articles".

Insert new paragraph (5) as follows:

"(5) Plastics packagings shall not be liable to generate or accumulate sufficient static electricity that a discharge could cause the packaged explosive to ignite or the packaged article to function."

Re-number paragraph (5) Table 2 as paragraph (6) and amend as follows:

Packing method

E 2	In column 2, add:	"Bags paper, multiwall, water resistant woven plastics"
	In column 3, under Drums, add:	"steel, removable head (1A2)"
E 4(a)	In column 3, under Boxes, add:	"natural wood, ordinary (4C1) steel (4A)"
	In column 3, delete:	"Drums, fibre (1G)"
E 4(b)	In column 2, replace:	"Optional" by "Not necessary".

2103

(cont'd)

Packing method

- | | | |
|---------|---|--|
| E 6(a)2 | In column 2, under
" <u>Intermediate</u> bags", add: | "plastics" |
| E 8 | In column 3, under Boxes, add: | "steel (4A)
aluminium (4B)
plastics, solid (4H2)" |
| | In column 3, under Drums, add: | "steel, removable head
(1A2)
aluminium, removable head
(1B2)" |
| E 12 | In column 3, under Boxes, add: | "steel (4A)
aluminium (4B)
plastics, solid (4H2)" |
| | In column 3, under Drums, add: | "aluminium, removable head
(1B2)" |
| | delete: | "plastics (1H2)" |
| | NOTE: delete: | "or plastic drums (1H2)" |
| E 13(a) | In column 2, under Bags, add: | "woven plastics
paper, multiwall, water
resistant" |
| E 13(b) | In column 2, under Bags, add: | "woven plastics
paper, multiwall, water
resistant" |
| E 20 | In column 2, under
Receptacles, add: | "fibreboard" |
| | In column 3, under Boxes, add:
and replace: | "plastics, solid (4H2)"
"steel, with inner liner or
coating (4A2)" |
| | by: | "steel (4A)
aluminium (4B)" |

2103

(cont'd)

Packing method

- E 22(a), In column 3, under Boxes, add: "steel (4A)"
(b)
- E 24(b) In column 3, delete: "with coating - other than lead"
- E 25 In column 3, under Drums, add: "steel, removable head (1A2)"
- E 26 In column 2, under Bags, add: "paper
paper, multiwall, water resistant"
- E 102 In column 3, under Boxes, add: "aluminium (4B)"
"expanded plastics (4H1)"
"plastics, solid (4H2)"
and replace: "steel (4A1)" and "steel,
with inner liner or coating
(4A2)"
by: "steel (4A)"
- In column 3, under Drums, add: "aluminium, removable head (1B2)"
- In column 3, delete: "Crates 4/ (for large articles)"
- In column 2, add: "plastics"
- E 104 In column 3, under Boxes, add: "aluminium (4B)"
and replace: "steel, with inner liner or coating (4A2)"
by: "steel (4A)"
- E 105 In column 3, under Boxes, add: "aluminium (4B)"
and replace: "steel, with inner liner or coating (4A2)"
by: "steel (4A)"

2103

(cont'd)

Packing method

- E 105 A In column 3, under Boxes, add: "aluminium (4B)"
and replace: "steel, with inner liner or
coating (4A2)"
by: "steel (4A)"
- E 106 In column 3, under Boxes, add: "aluminium (4B)" and
"plastics, solid (4H2)"
and replace: "steel (4A1)"
by: "steel (4A)"
In column 3, add: "Drums steel, removable
head (1A2)"
In column 3, delete: "crates 6/" and
"cradles 6/"
- E 107(a); In column 3, under Boxes, add: "steel (4A)"
(b) aluminium (4B)"
- E 108 In column 3, under Boxes, add: "aluminium (4B)"
and replace: "steel (4A1)"
by: "steel (4A)"

Delete footnotes 4/ and 6/ and renumber footnotes consequently.

- E 109 In column 2, under
Receptacles, add: "paper
fibreboard"
- In column 3, under Boxes, add: "aluminium (4B)"
and replace: "steel, with inner liner or
coating (4A2)"
by: "steel (4A)"
- E 112 In column 3, under Boxes, add: "aluminium (4B)" and
"plastics,
solid (4H2)"
- and replace: "steel (4A1)" and "steel,
with inner liner or coating
(4A2)"
by: "steel (4A)"

2103

(cont'd)

Packing method

- E 113 In column 3, under Boxes, add: "natural wood, with
sift-proof walls (4C2)
steel (4A)"
- E 114 In column 3, under Boxes, add: "aluminium (4B)"
"natural wood, with
sift-proof walls (4C2)"
and replace: "steel, with inner liner or
coating (4A2)"
by: "steel (4A)"

In column 3, add: "Drums
steel, removable head
(1A2)"
- E 115 In column 3, under Boxes, add: "aluminium (4B)"
"expanded plastics (4H1)"
"plastics, solid (4H2)"
and replace: "steel, with inner liner or
coating (4A2)"
by: "steel (4A)"
- E 116 In column 3, under Boxes, add: "aluminium (4B)"
and replace: "steel (4A1)"
by: "steel (4A)"
- E 117 In column 2 insert: "not necessary" instead of the
existing wording

In column 3, under Boxes add: "aluminium (4B)"
"fibreboard (4G)"
and replace: "steel, with inner liner or
coating (4A2)"
by: "steel (4A)"

In column 3, add: "Drums
steel, removable head
(1A2)"
- E 118 Delete the entry and footnote Z/

2103 (cont'd)

Packing method

- E 130 In column 2, under Receptacles,
add: "metal"
In column 3, under Boxes, add: "steel (4A)
aluminium (4B)
expanded plastics (4H1)"
- In column 3, under Drums, add: "steel, removable head
(1A2)
aluminium, removable head
(1B2)"
- E 133 In column 3, under Boxes, add: "aluminium (4B)"
and replace: "expanded plastics (4H1)"
by: "steel (4A1)"
"steel (4A)"
- In column 3, under Drums, add: "steel, removable head
(1A2)
aluminium, removable head
(1B2)"
- E 134 In column 3, under Boxes, add: "aluminium (4B)"
and replace: "steel (4A1)"
by: "steel (4A)"
- In column 3, add: "Drums
steel, removable head (1A2)
aluminium, removable head
(1B2)"
- E 136 In column 3, under Boxes, add: "aluminium (4B)"
and replace: "plastics, solid (4H2)"
"steel, with inner liner or
coating (4A2)"
by: "steel (4A)"
- In column 3, under Drums, add: "steel, removable head
(1A2)
aluminium, removable head
(1B2)"

2103 (cont'd)Packing method

- | | | |
|-------|---|---|
| E 143 | In column 3, under Boxes, add:
and replace:
by: | "aluminium (4B)"
"steel (4A1)"
"steel (4A)" |
| E 145 | In column 3, under Boxes, add:
and replace:

by: | "aluminium (4B)"
"steel, with inner liner or
coating (4A2)"
"steel (4A)" |
| E 149 | In column 3, under Boxes, add:
and replace:
by: | "aluminium (4B)"
"steel (4A1)"
"steel (4A)" |
| E 150 | In column 2, under Boxes, add:

In column 3, under Boxes, add:

and replace:
by:

In column 3, under Drums, add: | "metal"

"aluminium (4B)"
"expanded plastics (4H1)"
"plastics, solid (4H2)"
"steel (4A1)"
"steel (4A)"

"steel, removable head
(1A2)
aluminium, removable head
(1B2)
plastics, removable head
(1H2)" |
| E 151 | In column 3, under Boxes, add:
and replace:
by: | "aluminium (4B)"
"steel (4A1)"
"steel (4A)" |
| E 153 | In column 3, under Boxes, add:
and replace:
by: | "aluminium (4B)"
"steel (4A1)"
"steel (4A)" |
| E 156 | In column 3, under Boxes, add:
and replace:

by: | "aluminium (4B)"
"steel (4A1)" and
"steel, inner liner or
coating (4A2)"
"steel (4A)" |

2103 (cont'd)

Packing method

E 157 In column 3, under Boxes, add: "aluminium (4B)"
 and replace: "steel (4A1)"
 by: "steel (4A)"

Add a new packing method E 159 as follows:

1	2	3
E 159 (a)	Receptacles plastics	Boxes natural wood, ordinary (4C1) plywood (4D) reconstituted wood (4F)
	<u>Intermediate</u>	
	Bags plastics, in metal cans	
(b)	Receptacles plastics	Drums steel, removable head (1A2) aluminium, removable head (1B2)
	<u>Intermediate</u>	
	Drums. metal	

Renumber paragraph (6) Table 3 as paragraph (7) and delete Special Packing Requirements 17, 18, 19, 20, 25, 26, 29, 39, 40 and 54.

2103 (cont'd)

Amend the following Special Packing Requirements as follows:

8. Amend to read:

"The inside of metal packagings shall be galvanized, painted or otherwise protected. Bare steel shall not come into contact with the propellant."

32. Text in column 2 to read:

"Unless the ends of the article are sealed, plastics bags shall be used as inner packaging".

38. Amend to read:

"The fuzes shall be separated from each other in the inner packaging."

49. Text in column 2 to read:

"Large articles without their means of initiation, or with their means of initiation containing at least two effective protective features, may be carried unpacked".

Add the following new Special Packaging Requirements:

"56. Fibreboard boxes (4G) shall not be used as outer packaging.

57. Liner or inner coating required for metal outer packagings (e.g., 4A, 4B, 1A2, 1B2) unless another means such as the use of an inner packaging or cushioning material protects the explosive substance from contact with the metal outer packaging during normal conditions of transport.

58. Plastics receptacles shall have taped screw cap closures and be of not more than 5 litres capacity each. Each receptacle shall be contained within an intermediate packaging. Each plastics bag shall be surrounded on all sides with at least 50 mm of non-combustible absorbent cushioning material; metal cans in the outer box shall also be cushioned from each other in all directions.

2103 (cont'd)

58. Net mass of propellant shall be limited to 30 kg for each package.

59. The intermediate drum shall be surrounded on all sides with at least 50 mm of non-combustible absorbent cushioning material. A composite packaging consisting of a plastics receptacle in a metal drum may be used instead of the inner and intermediate packagings. The net volume of propellant in each package shall not exceed 120 litres."

2105 (2) Add: "... and those containing articles of item 50^{*} shall bear a label conforming to model No. 1.6."

(3) Add "and 0303" to the text after "43, 0301" (for label No. 8 only).

2201 2^{*} (b). Add:

"... mixtures containing not more than 10% silane by volume with one or more of the following gases: hydrogen, nitrogen, argon, helium, krypton, neon, deuterium and methane".

2^{*} (bt): Delete "or silane" (twice).

9^{*}(at) NOTE: Amend to read:

"2672 Ammonia solution, relative density between 0.880 and 0.957 at 15° C in water, with more than 10 % but not more than 35 % ammonia, is a substance of Class 8 [see marginal 2801, 43^{*}(c)]".

(14^{*}): Amend as follows:

"Empty receptacles, empty tank-vehicles or empty tank-containers uncleaned, which have contained substances of Class 2."

NOTE 2, to be deleted; NOTE 1 becomes NOTE in which the words "listed under 14^{*}" are replaced with "of Class 2".

2201 a (b) At the end add the following sentence:

"These freezing appliances shall be protected and loaded in such a way as to prevent any damage to their freezing circuit".

2201 a (c) Amend as follows:
(cont'd)

"(c) carbon dioxide and nitrous oxide (N_2O) of 5° (a) in metal capsules (sodors, sparklets, cream capsules), if the carbon dioxide and nitrous oxide in the gaseous state do not contain more than 0.5% air and the capsules contain not more than 25 g carbon dioxide or 25 g nitrous oxide and not more than 0.75 g of carbon dioxide or nitrous oxide per cm^3 of capacity;"

2208 (2) Replace "gases of 4° (a) and (b)" with "gases of 4° (a) and (b) and (c)".

2212 (3) (b) and (c)

Delete "or silane" (four times)

2217 Insert the following new paragraph (3):

"(3) The cylinders referred to in marginal 2212 (1) (a) may be carried after the expiry of the time-limit set for the periodic test prescribed in marginal 2215 for the purpose of undergoing the test."

2219 (5) Delete "or silane" (twice).

2226 (2) and (3) Delete.

Paragraph (4) becomes (2).

Insert the following new paragraph (3):

"(3) For the carriage of cylinders in conformity with marginal 2212 (1) (a) under the conditions of marginal 2217 (3), the following entry shall be included in the transport document:

'Carriage in conformity with marginal 2217 (3)'".

CLASS 3: marginals 2300 to 2399 should be replaced by the following:

CLASS 3. FLAMMABLE LIQUIDS*1. List of substances**

- 2300 (1) Among the substances and mixtures covered by the heading of Class 3, those listed in marginal 2301 or which fall under a collective heading of that marginal, and articles containing such substances, are subject to the conditions prescribed in marginals 2300 (2) to 2322 and to the provisions of this Annex and of Annex B and are consequently substances of ADR.

NOTE: For the quantities of substances listed in marginal 2301 which are not subject to the provisions for this Class, either in this Annex or in Annex B, see marginal 2301a.

- 2300 (2) The heading of Class 3 covers substances and articles containing substances of this Class which:

are liquid at a maximum temperature of 20 °C, or for viscous substances for which a specific melting point cannot be determined, are highly viscous according to the criteria of the penetrometer test (see Appendix A.3, marginal 3310), or are liquid according to the ASTM D 4359-90 test method;

have at 50 °C a vapour pressure of not more than 300 kPa (3 bar);

have a flashpoint of not more than 61 °C.

The heading of Class 3 also covers flammable liquid substances and molten solid substances with a flashpoint of more than 61 °C and which are carried or handed over for carriage whilst heated at temperatures equal to or higher than their flashpoint.

Substances having a flashpoint above 35 °C, non-toxic and non-corrosive, which, under the test conditions given, do not sustain combustion (see Appendix A.3, marginal 3304) are excluded; if however these substances are handed over for carriage and carried whilst heated at temperatures equal to or higher than their flashpoint, they are substances of this Class.

Flammable liquids which, because of supplementary dangerous properties, are listed in, or assigned to, other classes are also excluded. The flashpoint shall be determined as indicated in Appendix A.3, marginals 3300 to 3302.

2300 (2)
(cont'd)

NOTE 1: For gasoil, diesel fuel, heating oil (light) (identification number 1202) having a flashpoint above 61 °C see, however, NOTE under marginal 2301, 31° (c).

NOTE 2: For substances having a flashpoint above 61 °C which are carried or handed over for carriage at or above their flashpoint, see however marginal 2301, 61° (c).

(3) The substances and articles of Class 3 are subdivided as follows:

- A. Substances having a flashpoint below 23 °C not toxic, not corrosive;
- B. Substances having a flashpoint below 23 °C and toxic;
- C. Substances having a flashpoint below 23 °C and corrosive;
- D. Substances having a flashpoint below 23 °C, toxic and corrosive and articles containing those substances;
- E. Substances having a flashpoint between 23 °C and 61 °C inclusive which might be slightly toxic and/or slightly corrosive;
- F. Substances and preparations used as pesticides having a flashpoint below 23 °C;
- G. Substances having a flashpoint above 61 °C which are carried or handed over for carriage at or above their flashpoint;
- H. Empty packagings.

Substances and articles of Class 3, other than those of 6°, 12°, 13°, and 28° classified under the various item numbers of marginal 2301 shall be assigned to one of the following groups designated by the letter (a), (b) or (c) according to their degree of danger:

2300 (2)
(cont'd)

letter (a): very dangerous substances: flammable liquids having a boiling point or initial boiling point not exceeding 35 °C, and flammable liquids having a flash-point below 23 °C, which are either highly toxic according to the criteria of marginal 2600 or highly corrosive according to the criteria of marginal 2800;

letter (b): dangerous substances: flammable liquids having a flash-point below 23 °C which are not classified under letter (a), with the exception of substances of marginal 2301, 5° (c);

letter (c): substances presenting a minor danger: flammable liquids having a flashpoint of 23 °C to 61 °C inclusive and substances of marginal 2301, 5° (c).

(4) If substances of Class 3, as a result of admixtures, come into different categories of risk from those to which the substances specifically named in marginal 2301 belong, these mixtures or solutions shall be assigned to the items and letters to which they belong on the basis of their actual degree of danger.

NOTE: For the classification of solutions and mixtures (such as preparations and wastes), see also marginal 2002 (8).

(5) On the basis of the test procedures in accordance with Appendix A.3, marginals 3300 to 3302, 3304 and 3310, and the criteria set out in (2), it may also be determined whether the nature of a solution or a mixture specifically named or containing a specifically named substance is such that the solution or mixture is not subject to the provisions for this Class.

(6) Certain highly toxic flammable liquid substances having a flashpoint below 23 °C are substances of Class 6.1 (marginal 2601, 1° to 10°).

(7) Substances of Class 3 which are liable to form peroxides easily (as happens with ethers or with certain heterocyclic oxygenated substances) are to be accepted for carriage only if their peroxide content, calculated as hydrogen peroxide (H₂O₂), does not exceed 0.3%. The peroxide content shall be determined as indicated in Appendix A.3, marginal 3303.

2300 (cont'd) (8) The chemically unstable substances of Class 3 are to be accepted for carriage only if the necessary steps have been taken to prevent their dangerous decomposition or polymerization during carriage. To this end, it shall in particular be ensured that receptacles do not contain any substance liable to promote these reactions.

2301 A. Substances having a flashpoint below 23 °C, not toxic, not corrosive.

- 1° Substances, solutions and mixtures (such as preparations and wastes) having a vapour pressure at 50 °C of more than 175 kPa (1.75 bar):
- (a) 1089 acetaldehyde (ethanal), 1108 1-pentene (n-amylene), 1144 crotonylene (2-butyne), 1243 methyl formate, 1265 pentanes, liquid (isopentane), 1267 petroleum crude oil, 1303 vinylidene chloride, inhibited (1,1-dichloroethylene; inhibited), 1308 zirconium suspended in a flammable liquid, 1863 fuel, aviation, turbine engine, 2371 isopentenes, 2389 furan, 2456 2-chloropropene, 2459 2-methyl-1-butene, 2561 3-methyl-1-butene (1-isoamylene) (isopropylethylene), 2749 tetramethylsilane, 1268 petroleum distillates, n.o.s., or 1268 petroleum products, n.o.s., 3295 hydrocarbons, liquid, n.o.s., 1993 flammable liquid, n.o.s.
- 2° Substances, solutions and mixtures (such as preparations and wastes) having a vapour pressure at 50 °C of more than 110 kPa (1.10 bar) but not more than 175 kPa (1.75 bar):
- (a) 1155 diethyl ether (ethyl ether), 1167 divinyl ether inhibited, 1218 isoprene, inhibited, 1267 petroleum crude oil, 1280 propylene oxide, inhibited, 1302 vinyl ethyl ether, inhibited, 1308 zirconium suspended in a flammable liquid, 1863 fuel, aviation, turbine engine, 2356 2-chloropropane, 2363 ethyl mercaptan, 1268 petroleum distillates, n.o.s., or 1268 petroleum products, n.o.s.,

- 2301 2° (a) 3295 hydrocarbons, liquid, n.o.s., 1993 flammable
(cont'd) (cont'd) liquid, n.o.s.;
- (b) 1164 dimethyl sulphide, 1234 methylal
(dimethoxymethane), 1265 pentanes, liquid (n-pentane),
1267 petroleum crude oil, 1278 1-chloropropane
(propyl chloride), 1308 zirconium suspended in a
flammable liquid, 1863 fuel, aviation, turbine engine,
2246 cyclopentene, 2460 2-methyl-2-butene, 2612 methyl
propyl ether,
1224 ketones, n.o.s., 1987 alcohols, flammable, n.o.s.,
1989 aldehydes, flammable, n.o.s., 1268 petroleum
distillates, n.o.s., or 1268 petroleum products, n.o.s.,
3295 hydrocarbons, liquid, n.o.s., 1993 flammable liquid
n.o.s.
- 3° Substances, solutions and mixtures (such as preparations and wastes) having a vapour pressure at 50 °C of not more than 110 kPa (1.10 bar):
- (b) 1203 motor spirit, 1267 petroleum crude oil, 1863 fuel
aviation, turbine engine,
1268 petroleum distillates, n.o.s, or 1268 petroleum
products, n.o.s.

NOTE: While in some climatic conditions petrol (gasoline) may have a vapour pressure at 50 °C of more than 110 kPa (1.10 bar) but not more than 150 kPa (1.50 bar), it is to continue to be classified under this item number.

Hydrocarbons:

1114 benzene, 1136 coal tar distillates,
1145 cyclohexane, 1146 cyclopentane, 1175 ethylbenzene,
1206 heptanes, 1208 hexanes, 1216 isooctenes,
1262 octanes, 1288 shale oil, 1294 toluene,
1300 turpentine substitute (white spirit), 1307 xylenes
(o-xylene;dimethylbenzenes), 2050 diisobutylene,
isomeric compounds,2057 tripropylene (propylene trimer),
2241 cycloheptane,2242 cycloheptene, 2251 bicyclo-
(2.2.1) -hepta-2,5-diene, inhibited (2,5-norbornadiene,
inhibited), 2256 cyclohexene, 2263 dimethylcyclohexanes,
2278 n-heptene, 2287 isoheptenes, 2288 isohexenes,
2296 methylcyclohexane, 2298 methylcyclopentane,

2301 3° 2309 octadienes, 2358 cyclooctatetraene, 2370 1-hexene,
(cont'd) (cont'd) 2457 2,3-dimethylbutane, 2458 hexadienes,
2461 methylpentadienes,
3295 hydrocarbons, liquid, n.o.s.;

Halogenated substances:

1107 amyl chlorides, 1126 1-bromobutane, (n-butyl bromide), 1127 chlorobutanes (butyl chlorides), 1150 1,2-dichloroethylene, 1279 1,2-dichloropropane, (propylene dichloride) 2047 dichloropropenes, 2338 benzotrifluoride, 2339 2-bromobutane, 2340 2-bromoethyl ethyl ether, 2342 bromomethylpropanes, 2343 2-bromopentane, 2344 bromopropanes, 2345 3-bromopropyne, 2362 1,1-dichloroethane (ethylidene chloride), 2387 fluorobenzene, 2388 fluorotoluenes, 2390 2-iodobutane, 2391 iodomethylpropanes, 2554 methylallyl chloride;

Alcohols:

1105 amyl alcohols, 1120 butanols, 1148 diacetone alcohol technical, 1170 ethanol (ethyl alcohol) or 1170 ethanol (ethyl alcohol) in aqueous solution containing more than 70% alcohol by volume, 1219 isopropanol (isopropyl alcohol), 1274 n-propanol (propyl alcohol, normal), 3065 alcoholic beverages containing more than 70% alcohol by volume, 1987 alcohols, flammable, n.o.s.;

NOTE: Alcoholic beverages containing more than 24% and not more than 70% alcohol by volume are substances of 31° (c).

Ethers:

1088 acetal (1,1-diethoxyethane), 1159 diisopropyl ether, 1165 dioxane, 1166 dioxolane, 1179 ethyl butyl ether, 1304 vinyl isobutyl ether, inhibited, 2056 tetrahydrofuran, 2252 1,2-dimethoxyethane, 2301 2-methylfuran, 2350 butyl methyl ether, 2352 butyl vinyl ether, inhibited, 2373 diethoxymethane,

2301 3^{*}
(cont'd) (cont'd)

2374 3,3-diethoxypropene, 2376 2,3-dihydropyran,
2377 1,1-dimethoxyethane, 2384 di-n-propyl ether,
2398 methyl tert-butyl ether,
2536 methyltetrahydrofuran, 2615 ethyl propyl ether,
2707 dimethyldioxanes, 3022 1,2-butylene oxide,
stabilized,
3271 ethers, n.o.s.;

Aldehydes:

1129 butyraldehyde, 1178 2-ethylbutyraldehyde,
1275 propionaldehyde, 2045 isobutyraldehyde (isobutyl
aldehyde), 2058 valeraldehyde,
2367 alpha-methylvaleraldehyde,
1989 aldehydes, flammable, n.o.s.;

Ketones:

1090 acetone, 1156 diethyl ketone, 1193 methyl ethyl
ketone (ethyl methyl ketone), 1245 methyl isobutyl
ketone, 1246 methyl isopropenyl ketone, inhibited,
1249 methyl propyl ketone, 1251 methyl vinyl ketone,
2346 butanedione (diacetyl), 2397 3-methylbutan-2-one,
1224 ketones, n.o.s.;

Esters:

1123 butyl acetates, 1128 n-butyl formate, 1161 dimethyl
carbonate, 1173 ethyl acetate, 1176 ethyl borate,
1190 ethyl formate, 1195 ethyl propionate, 1213 isobutyl
acetate, 1220 isopropyl acetate, 1231 methyl acetate,
1237 methyl butyrate, 1247 methyl methacrylate monomer,
inhibited, 1248 methyl propionate, 1276 n-propyl
acetate, 1281 propyl formates, 1301 vinyl acetate,
inhibited, 1862 ethyl crotonate, 1917 ethyl acrylate,
inhibited, 1919 methyl acrylate inhibited, 2277 ethyl
methacrylate, 2385 ethyl isobutyrate, 2393 isobutyl
formate, 2394 isobutyl propionate, 2400 methyl
isovalerate, 2403 isopropenyl acetate, 2406 isopropyl
isobutyrate, 2409 isopropyl propionate,
2416 trimethyl borate, 2616 triisopropyl borate,
2838 vinyl butyrate, inhibited,
3272 esters, n.o.s.;

2301 3° (cont'd) Substances containing sulphur:
(cont'd)

1111 amyl mercaptans, 2347 butyl mercaptans,
2375 diethyl sulphide, 2381 dimethyl disulphide,
2402 propanethiols (propyl mercaptans),
2412 tetrahydrothiophene (thiolanne), 2414 thiophene,
2436 thioacetic acid;

Substances containing nitrogen:

1113 amyl nitrites, 1222 isopropyl nitrate,
1261 nitromethane, 1282 pyridine, 1648 acetonitrile
(methyl cyanide), 1865 n-propyl nitrate, 2351 butyl
nitrites, 2372 1,2 di-(dimethylamino) ethane
(tetramethylethylenediamine), 2410 1, 2, 3, 6-
tetrahydropyridine;

Other flammable substances and mixtures and preparations
containing flammable liquids:

1091 acetone oils, 1201 fusel oil, 1293 tinctures,
medicinal, 1308 zirconium suspended in a flammable
liquid, 2380 dimethyldiethoxysilane,
1993 flammable liquid, n.o.s.

NOTE: For viscous substances, mixtures and
preparations, see 5°.

4° Solutions of nitrocellulose in mixtures of substances of
1° to 3° containing more than 20% but not more than
55% nitrocellulose with a nitrogen content not exceeding
12.6% (by dry mass):

(a) 2059 nitrocellulose solution, flammable;

(b) 2059 nitrocellulose solution, flammable.

NOTE 1: Mixtures having a flashpoint below 23 °C and
containing more than 55% nitrocellulose, whatever its
nitrogen content or containing not more than 55%
nitrocellulose with a nitrogen content above 12.6% (by
dry mass), are substances of Class 1, (see

2301
(cont'd)

3°(cont'd)

marginal 2101, 4°, identification number 0340, or 26°, identification number 0342), or of Class 4.1 (see marginal 2401, 24°).

NOTE 2: Mixtures containing 20% or less nitrocellulose with a nitrogen content not exceeding 12.6% (by dry mass) are substances of 5°.

5° Liquid or viscous mixtures and preparations, including those containing 20% or less nitrocellulose with a nitrogen content not exceeding 12.6% (by dry mass):

(a) having a boiling point or initial boiling point not exceeding 35°C provided that they do not come under (c):

1133 adhesives, 1139 coating solution, 1169 extracts, aromatic, liquid, 1197 extracts, flavouring, liquid, 1210 printing ink, 1263 paint (including paint, lacquer, enamel, stain, shellac, varnish, polish, liquid filler and liquid lacquer base), 1263 paint related material (including paint thinning or reducing compound), 1266 perfumery products, 1286 rosin oil, 1287 rubber solution, 1866 resin solution;

(b) having a boiling point or initial boiling point exceeding 35 °C provided that they do not come under (c):

1133 adhesives, 1139 coating solution, 1169 extracts, aromatic, liquid, 1197 extracts, flavouring, liquid, 1210 printing ink, 1263 paint (including paint, lacquer, enamel, stain, shellac, varnish, polish, liquid filler and liquid lacquer base), 1263 paint related material (including paint thinning or reducing compound), 1266 perfumery products, 1286 rosin oil, 1287 rubber solution, 1306 wood preservatives, 1866 resin solution, 1999 tars, liquid including road asphalt and oils, bitumen and cut backs, 3269 polyester resin kit;

2301 5* (c) 1133 adhesives, 1139 coating solution,
(cont'd) (cont'd) 1169 extracts, aromatic, liquid, 1197 extracts,
flavouring, liquid, 1210 printing ink, 1263 paint
(including paint, lacquer, enamel, stain, shellac,
varnish, polish, liquid filler and liquid lacquer
base), 1263 paint related material (including
paint thinning or reducing compound),
1266 perfumery products, 1286 rosin oil,
1287 rubber solution, 1306 wood preservatives,
liquid, 1866 resin solution, 1999 tars, liquid
including road asphalt and oils, bitumen and cut
backs, 3269 polyester resin kit,
1993 flammable liquid, n.o.s.

Classification under letter (c) is only possible if the following requirements are met:

1. that the height of the separated layer of solvent is less than 3% of the total height in the solvent-separation test; 9/ and

9/ Solvent-separation test: This test is carried out at 23° C using a 100 ml graduated measuring cylinder of the stoppered type of approximately 25 cm total height and of a uniform internal diameter of approximately 3 cm over the calibrated section. The substance should be stirred to obtain a uniform consistency and poured into the measuring cylinder up to the 100 ml mark. The stopper should be inserted and the cylinder left standing undisturbed for 24 hours. After 24 hours the height of the upper separated layer should be measured and the layer's height as a percentage of the total height of the sample should be calculated.

2301 5° (cont'd)
(cont'd)

2. that the viscosity 10/ and flash-point are in accordance with the following table:

Kinematic viscosity (extrapolated) (at near-zero shear rate) mm ² /s at 23 °C	Flow time t in accordance with ISO 2431:1984		Flashpoint in °C
	in s	Jet diameter in mm	
20 < γ ≤ 80	20 < t ≤ 60	4	above 17
80 < γ ≤ 135	60 < t ≤ 100	4	above 10
135 < γ ≤ 220	20 < t ≤ 32	6	above 5
220 < γ ≤ 300	32 < t ≤ 44	6	above -1
300 < γ ≤ 700	44 < t ≤ 100	6	above -5
700 < γ	100 < t	6	-5 and below

NOTE 1: Mixtures containing more than 20% but not more than 55% nitrocellulose with a nitrogen content not exceeding 12.6% by dry mass are substances of 4°.

Mixtures having a flashpoint below 23 °C and containing:

more than 55% nitrocellulose, whatever their nitrogen content; or

not more than 55% nitrocellulose with a nitrogen content above 12.6% by dry mass,

are substances of Class 1 (see marginal 2101, 4°, No. 0340, or 22°, No. 0342) or of Class 4.1 (see marginal 2401, 24°).

NOTE 2: No substances of ADR listed by name under other entries may be carried under the entry 1263 Paint or 1263 Paint related material. Substances carried under identification number 1263 may contain not more than 20% nitrocellulose provided that the nitrogen content does not exceed 12.6% by dry mass.

10/ Viscosity determination: Where the substance concerned is non-Newtonian, or where a flow cup method of viscosity determination is otherwise unsuitable, a variable shear-rate viscometer should be used to determine the coefficient of dynamic viscosity of the substance, at 23 °C, at a number of shear rates, the values obtained are plotted against shear rate and then extrapolated to zero shear rate. The dynamic viscosity thus obtained, divided by the density, gives the apparent kinematic viscosity at near-zero shear rate.

2301 5° (cont'd)
(cont'd)

NOTE 3: 3269 Polyester resin kits have two components: a basic product (Class 3, Group (b) or (c)), and an activator (organic peroxide), each packed separately in an inner packaging. The organic peroxide shall be of types D, E or F, not requiring temperature regulation and restricted to 125 ml liquid and 500 g solid per inner packaging. The components may be placed in the same outer packaging, provided that they do not react dangerously with each other in the event of leakage.

- 6° 3064 nitroglycerin solution in alcohol with more than 1% but not more than 5% nitroglycerin.

NOTE: Special packing conditions are applicable for this substance (see marginal 2303); see also Class 1, marginal 2101, 4°, identification number 0144.

- 7° (b) 1204 nitroglycerin solution in alcohol with not more than 1% nitroglycerin.

B. Substances having a flashpoint below 23 °C and toxic.

NOTE: 1. Toxic substances having a flashpoint of 23 °C or above, and some substances listed by name in 1° to 10° of marginal 2601 are substances of Class 6.1.

NOTE: 2. For toxicity criteria, see marginal 2600.

11° Nitriles or isonitriles (isocyanides):

- (a) 1093 acrylonitrile, inhibited,
3079 methacrylonitrile, inhibited,
3273 nitriles, flammable, toxic, n.o.s.;
- (b) 2284 isobutyronitrile, 2378 2-dimethyl-
aminoacetonitrile, 2404 propionitrile,
2411 butyronitrile,
3273 nitriles, flammable, toxic, n.o.s.

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(cont'd) 12° 1921 propyleneimine, inhibited.

NOTE: Special packing conditions are applicable for this substance (see marginal 2304).

13° 2481 Ethyl isocyanate.

NOTE: Special packing conditions are applicable for this substance (see marginal 2304).

14° Other isocyanates:

- (a) 2483 isopropyl isocyanate, 2605 methoxymethyl isocyanate;
- (b) 2486 isobutyl isocyanate,
2478 isocyanates, flammable, toxic, n.o.s., or
2478 isocyanates solution, flammable, toxic, n.o.s.

NOTE: Solutions of isocyanates having a flashpoint above 23 °C are substances of Class 6.1 (see marginal 2601, 18° or 19°).

15° Other substances containing nitrogen:

- (a) 1194 ethyl nitrite, solution.

16° Halogenated organic substances:

- (a) 1099 allyl bromide, 1100 allyl chloride,
1991 chloroprene, inhibited;
- (b) 1184 ethylene dichloride (1,2-dichloroethane),
2354 chloromethyl ethyl ether.

17° Oxygenated organic substances:

- (a) 2336 allyl formate, 2983 ethylene oxide and propylene oxide mixture, with not more than 30% ethylene oxide,
1986 alcohols, flammable, toxic, n.o.s.,
1988 aldehydes, flammable, toxic, n.o.s.;

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(cont'd) 17° (b) 1230 methanol, 2333 allyl acetate, 2335 allyl ethyl ether, 2360 diallyl ether, 2396 methacrylaldehyde, inhibited, 2622 glycidaldehyde, 1986 alcohols, flammable, toxic, n.o.s., 1988 aldehydes, flammable, toxic, n.o.s.

18° Organic substances containing sulphur:

- (a) 1131 carbon disulphide (carbon sulphide);
- (b) 1228 mercaptans, liquid, flammable, toxic, n.o.s., 1228 mercaptan mixture, liquid, flammable, toxic, n.o.s.

19° Substances, solutions and mixtures (such as preparations and wastes), having a flashpoint below 23 °C and toxic which cannot be classified under another collective heading:

- (a) 1992 flammable liquid, toxic, n.o.s.;
- (b) 2603 cycloheptatriene, 3248 medicine, liquid, flammable, toxic, n.o.s., 1992 flammable liquid, toxic, n.o.s.

NOTE: Pharmaceutical products ready for use, e.g. cosmetics, drugs and medicines, which are substances manufactured and packed in packagings of a type intended for retail sale or distribution for personal or household consumption, which would otherwise be substances of item 19° b), are not subject to the provisions of ADR.

C. Substances having a flashpoint below 23 °C and corrosive

NOTE 1: Corrosive liquids having a flashpoint of 23 °C or above are substances of Class 8 (see marginal 2801).

NOTE 2: Certain flammable corrosive liquids having a flashpoint below 23 °C and a boiling point above 35 °C are substances of Class 8 (see marginal 2800 (7) (a)).

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(cont'd)

NOTE 3: For corrosivity criteria, see marginal 2800.

21° Chlorosilanes:

- (a) 1250 methyltrichlorosilane,
1305 vinyltrichlorosilane, inhibited;
- (b) 112 dimethyldichlorosilane, 1196 ethyltrichlorosilane,
1298 trimethylchlorosilane,
2985 chlorosilanes, flammable, corrosive, n.o.s.

NOTE: Chlorosilanes which give off flammable gases on contact with water are substances of Class 4.3, 1° (a) [see marginal 2471, 1° (a)].

22° Amines and their solutions:

- (a) 1221 isopropylamine, 1297 trimethylamine, aqueous
solution containing 30% to 50% trimethylamine (by mass),
2733 amines, flammable, corrosive, n.o.s., or 2733
polyamines, flammable, corrosive, n.o.s.;
- (b) 1106 amylamines (n-amylamine, tert-amylamine), 1125 n-
butylamine, 1154 diethylamine, 1158 diisopropylamine,
1160 dimethylamine aqueous solution, 1214 isobutylamine,
1235 methylamine, aqueous solution, 1277 propylamine,
1296 triethylamine, 1297 trimethylamine, aqueous
solution with not more than 30% trimethylamine by mass,
2266 N,N-dimethylpropylamine (dimethyl-N-propylamine),
2270 ethylamine aqueous solution with not less than 50%
but not more than 70% ethylamine (by mass), 2379 1, 3-
dimethylbutylamine, 2383 dipropylamine, 2945 N-
methylbutylamine, -
2733 amines, flammable, corrosive, n.o.s. or 2733
polyamines, flammable, corrosive, n.o.s.

NOTE: Anhydrous dimethylamine, ethylamine, methylamine and trimethylamine are substances of Class 2 [see marginal 2201, 3° (b t)].

2301

(cont'd) 23° Other substances containing nitrogen:

- (b) 1922 pyrrolidine, 2386 1-ethylpiperidine, 2399 1-methylpiperidine, 2401 piperidine, 2493 hexamethyleneimine, 2535 4-methylmorpholine (N-methylmorpholine).

24° Solutions of alcoholates:

- (b) 1289 sodium methylate solution in alcohol, 3274 alcoholates solution, n.o.s. in alcohol.

25° Other halogenated corrosive substances:

- (b) 1717 acetyl chloride, 1723 allyl iodide, 1815 propionyl chloride, 2353 butyryl chloride, 2395 isobutyryl chloride.

26° Substances, solutions and mixtures (such as preparations and wastes) having a flashpoint below 23 °C and highly corrosive, corrosive or slightly corrosive which cannot be classified under another collective heading:

- (a) 2924 flammable liquid, corrosive, n.o.s.;

- (b) 2924 flammable liquid, corrosive, n.o.s.

D. Substances having a flashpoint below 23 °C, toxic and corrosive and articles containing those substances

27° (a) 3286 flammable liquid, toxic, corrosive, n.o.s.;

- (b) 2359 diallylamine, 3286 flammable liquid, toxic, corrosive, n.o.s.

28° 3165 Aircraft hydraulic power unit fuel tank containing a mixture of anhydrous hydrazine and methylhydrazine.

NOTE: Special packing conditions are applicable for these tanks (see marginal 2309).

- 2301 E. Substances having a flashpoint between 23 °C and 61 °C
(cont'd) inclusive which might be slightly toxic or slightly corrosive

NOTE: Non-toxic and non-corrosive solutions and homogeneous mixtures having a flashpoint of 23 °C or above (viscous substances, such as paints or varnishes, excluding substances containing more than 20% nitrocellulose) packed in receptacles of less than 450 litres capacity, are subject only to the requirements of marginal 2314 if, in the solvent-separation test, as described in footnote 1/ to 5°, the height of the separated layer of solvent is less than 3% of the total height, and if the substances at 23 °C have, in the flow cup conforming to ISO 2431:1984 having a jet 6 mm in diameter, a flow time of:

- (a) not less than 60 seconds, or
- (b) not less than 40 seconds and contain not more than 60% of substances of Class 3.

- 31° Substances, solutions and mixtures (such as preparations and wastes) having a flashpoint between 23 °C and 61 °C inclusive, not slightly toxic and not slightly corrosive:

- (c) 1202 diesel fuel or 1202 gasoil or 1202 heating oil (light), 1223 kerosene, 1267 petroleum crude oil, 1863 fuel, aviation, turbine engine, 1268 petroleum distillates, n.o.s. or 1268 petroleum products, n.o.s.

NOTE: By derogation from marginal 2300 (2), diesel fuel, gasoil and heating oil (light) having a flashpoint above 61 °C shall be deemed substances of 31° (c), substance identification number 1202.

Hydrocarbons:

1136 coal tar distillates, 1147 decahydronaphthalene (decalin), 1288 shale oil, 1299 turpentine, 1300 turpentine substitute (white spirit), 1307 xylenes (m-xylene, p-xylene, dimethylbenzenes), 1918 isopropylbenzene (cumene), 1920 nonanes, 1999 tars, liquid including road asphalt and oils, bitumen and cut backs, 2046 cymenes (o-,m-,p-) (methyl isopropyl benzenes), 2048 dicyclopentadiene, 2049 diethyl benzenes (o-,m-,p-), 2052 dipentene (limonene), 2055 styrene monomer, inhibited (vinylbenzene monomer inhibited), 2057 tripropylene (propylene trimer), 2247 n-decane, 2286 pentamethylheptane (isododecane), 2303 isopropenylbenzene,

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(cont'd) 31° 2324 triisobutylene, 2325 1, 3, 5-trimethylbenzene
(cont'd) (mesitylene), 2330 undecane, 2364 n-propylbenzene, 2368
alpha-pinene, 2520 cyclooctadienes, 2541 terpinolene, 2618
vinyltoluenes, inhibited (o-,m-,p-), 2709 butylbenzenes, 2850
propylene tetramer (tetrapropylene), 2319 terpene
hydrocarbons, n.o.s.,
3295 hydrocarbons, liquid, n.o.s.;

Halogenated substances:

1134 chlorobenzene (phenyl chloride),
1152 dichloropentanes, 2047 dichloropropenes,
2234 chlorobenzotrifluorides (o-,m-,p-),
2238 chlorotoluenes (o-,m-,p-), 2341 1-bromo-3-methylbutane,
2392 iodopropanes, 2514 bromobenzene, 2711 m-dibromobenzene;

Alcohols:

1105 amyl alcohols, 1120 butanols, 1148 diacetone alcohol
chemically pure, 1170 ethanol solution (ethyl alcohol
solution) containing more than 24% and not more than
70% alcohol, 1171 ethylene glycol monoethyl ether
(2-ethoxyethanol), 1188 ethylene glycol monomethyl ether
(2-methoxyethanol), 1212 isobutanol (isobutyl alcohol),
1274 n-propanol, (propyl alcohol, normal), 2053 methyl
isobutyl carbinol (methyl amyl alcohol), 2244 cyclopentanol,
2275 2-ethylbutanol, 2282 hexanols, 2560 2-methylpentan-2-ol,
2614 methallyl alcohol, 2617 methylcyclohexanols, flammable,
2686 diethylaminoethanol, 3065 alcoholic beverages containing
not more than 24% and not more than 70% alcohol by volume
3092 1-methoxy-2-propanol,
1987 alcohols, flammable, n.o.s.;

NOTE 1: Aqueous solutions of ethyl alcohol and alcoholic beverages containing not more than 24% alcohol by volume are not subject to the provisions of ADR.

NOTE 2: Alcoholic beverages containing more than 24% and not more than 70% alcohol by volume are subject to the provisions of ADR only if carried in receptacles with a capacity of more than 250 litres or in tank-vehicles, tank-containers or demountable tanks.

2301

(cont'd) 31* Ethers:

(cont'd)

1149 dibutyl ethers, 1153 ethylene glycol diethyl ether (1, 2-diethoxyethane), 2219 allyl glycidyl ether, 2222 anisole (phenyl methyl ether), 2707 dimethyldioxanes, 2752 1,2-epoxy-3-ethoxypropane, 3271 ethers, n.o.s.;

Aldehydes:

1191 octyl aldehydes (ethylhexaldehydes) (2-ethylhexaldehyde) (3-ethylhexaldehyde), 1199 furfural (furfuraldehyde), 1207 hexaldehyde, 1264 paraldehyde, 2498 1, 2, 3, 6 - tetrahydrobenzaldehyde, 2607 acrolein dimer, stabilized, 3056 n-heptaldehyde, 1989 aldehydes, flammable, n.o.s.;

Ketones:

1110 n-amyl methyl ketone, 1157 diisobutyl ketone, 1229 mesityl oxide, 1915 cyclohexanone, 2245 cyclopentanone, 2271 ethyl amyl ketones, 2293 4-methoxy-4 methylpentan-2-one, 2297 methylcyclohexanones, 2302 5-methylhexan - 2 - one, 2310 pentan-2,4-dione (acetylacetone), 2621 acetyl methyl carbinol, 2710 dipropyl ketone, 1224 ketones, n.o.s.;

Esters:

1104 amyl acetates, 1109 amyl formates, 1123 butyl acetates, 1172 ethylene glycol monoethyl ether acetate (2-ethoxyethyl acetate), 1177 ethylbutyl acetate, 1180 ethyl butyrate, 1189 ethylene glycol monomethyl ether acetate, 1192 ethyl lactate, 1233 methylamyl acetate, 1292 tetraethyl silicate, 1914 n-butyl propionate, 2227 n-butyl methacrylate, inhibited, 2243 cyclohexyl acetate, 2283 isobutyl methacrylate, inhibited, 2323 triethyl phosphite, 2329 trimethyl phosphite, 2348 n-butyl acrylate inhibited, 2366 diethyl carbonate (ethyl carbonate), 2405 isopropyl butyrate, 2413 tetrapropyl orthotitanate, 2524 ethyl orthoformate, 2527 isobutyl acrylate inhibited, 2528 isobutyl isobutvrate, 2616 triisopropyl borate, 2620 amyl butyrates, 2708 butoxyl (3-methoxy-1-acetoxybutane), 2933 methyl 2 - chloropropionate, 2934 isopropyl 2-chloropropionate, 2935 ethyl 2-chloropropionate, 2947 isopropyl chloroacetate, 3272 esters, n.o.s.;

2301 31° Substances containing nitrogen:
(cont'd) (cont'd)

1112 amyl nitrates, 2054 morpholine, 2265 N,N-dimethylformamide, 2313 picolines (methylpyridines) 2332 acetaldehyde oxime, 2351 butyl nitrites, 2608 nitropropanes, 2840 butyraldoxime, 2842 nitroethane, 2906 triisocyanatoisocyanurate of isophoronediiisocyanate, solution (70% by mass), 2943 tetrahydrofurfurylamine;

Substances containing sulphur:

3054 cyclohexyl mercaptan;

Other flammable substances, mixtures and preparations containing flammable liquids:

1130 camphor oil, 1133 adhesives, 1139 coating solution, 1169 extracts, aromatic, liquid, 1197 extracts, flavouring, liquid, 1201 fusel oil, 1210 printing ink, 1263 paint (including paint, lacquer, enamel, stain, shellac, varnish, polish, liquid filler and liquid lacquer base) or 1263 paint related material (including paint thinning or reducing compound), 1266 perfumery products, 1272 pine oil, 1286 rosin oil, 1287 rubber solution, 1293 tinctures, medicinal, 1306 wood preservatives, liquid, 1308 zirconium suspended in a flammable liquid, 1866 resin solution, 3269 polyester resin kits, 1993 flammable liquid, n.o.s.

NOTE 1: Mixtures containing more than 20% but not more than 55% nitrocellulose with a nitrogen content not exceeding 12.6% (by dry mass) are substances of 34° (c).

NOTE 2: For 3269 polyester resin kits, see 5° NOTE 3.

32° Substances, solutions and mixtures (such as preparations and wastes) having a flashpoint between 23 °C and 61 °C inclusive, slightly toxic:

2301 32°
(cont'd) (cont'd)

- (c) 2841 di-n-amylamine,
1228 mercaptans, liquid, flammable, toxic, n.o.s. or
1228 mercaptan mixture, liquid, flammable, toxic,
n.o.s.,
1986 alcohols flammable, toxic, n.o.s., 1988 aldehydes
flammable, toxic, n.o.s., 2478 isocyanates, flammable,
toxic, n.o.s. or 2478 isocyanate solution, flammable,
toxic, n.o.s., 3248 medicine, liquid, flammable, toxic,
n.o.s., 1992 flammable, liquid, toxic, n.o.s.

NOTE: Pharmaceutical products ready for use, e.g. cosmetics, drugs and medicines, which are substances manufactured and packed in packagings of a type intended for retail sale or distribution for personal or household consumption, which would otherwise be substances of 32° (c) are not subject to the provisions of ADR.

33° Substances, solutions and mixtures (such as preparations and wastes) having a flashpoint between 23 °C and 61 °C inclusive, slightly corrosive:

- (c) 1106 amylamine (sec-amylamine), 1198 formaldehyde
solution, flammable, 1289 sodium methylate solution in
alcohol, 1297 trimethylamine, aqueous solution (not more
than 30% trimethylamine, by mass), 2260 tripropylamine,
2276 2-ethylhexylamine, 2361 diisobutylamine,
2526 furfurylamine, 2529 isobutyric acid,
2530 isobutyric anhydride, 2610 triallylamine,
2684 diethylaminopropylamine,
2733 amines, flammable, corrosive, n.o.s., or
2733 polyamines, flammable, corrosive, n.o.s.,
2924 flammable liquid, corrosive, n.o.s.

34° Solutions of nitrocellulose in mixtures of substances of 31° (c) containing more than 20% but not more than 55% nitrocellulose with a nitrogen content not exceeding 12.6% (by dry mass):

- 2301 34° (cont'd)
(cont'd) (c) 2059 nitrocellulose solution, flammable.

NOTE: Mixtures containing more than 55% nitrocellulose, whatever its nitrogen content, or containing not more than 55% nitrocellulose with a nitrogen content above 12.6% (by dry mass), are substances of Class 1 (see marginal 2101, 4°, identification number 0340 or 26°, identification number 0342) or of Class 4.1 (see marginal 2401, 24°)

F. Substances and preparations used as pesticides having a flashpoint below 23 °C

NOTE 1: Flammable liquid substances and preparation, used as pesticides, which are highly toxic, toxic or slightly toxic and have a flashpoint of 23 °C or above are substances of Class 6.1 (see marginal 2601, 71° to 87°).

NOTE 2: In the tables, pesticides are subdivided into items 41° to 57° as follows:

highly toxic substances and preparations
toxic substances and preparations
slightly toxic substances and preparations.

NOTE 3: All active substances and their preparations used as pesticides shall be classified under 41° to 57° highly toxic, toxic and slightly toxic in accordance with marginal 2600(3).

NOTE 4: If only the LD₅₀ value of the active substance is known, and not that of the preparations of the active substance, the preparations may be classified under 41° to 57° highly toxic, toxic and harmful using the following tables, where the figures shown in columns "highly toxic", "toxic" and "slightly toxic" of 41° to 57° represent the percentage of active pesticide substance in the preparations.

2301

(cont'd)

NOTE 5: For substances which are not named in the list, and for which only the LD₅₀ value of the active substance is known and not the LD₅₀ values of the various preparations, the classification of a preparation may be determined from the table in marginal 2600(3), using an LD₅₀ value obtained by multiplying the LD₅₀ value of the active substance by $\frac{100}{x}$, x being the percentage of active substance by mass according to the following formula:

$$\text{LD}_{50} \text{ value} = \frac{\text{LD}_{50} \text{ value of the active substance} \times 100}{\text{percentage of active substance by mass}}$$

NOTE 6: The classification according to NOTES 4 and 5 above shall not be used when the preparations contain additives which affect the toxicity of the active substance or when a preparation contains more than one active substance. In such cases the classification shall be based on the LD₅₀ value of the preparation in question according to the criteria in marginal 2600(3). If the LD₅₀ value is not known, the substance shall be classified under highly toxic of 41° to 57°.

41° 2784 organophosphorus pesticide, liquid, flammable, toxic, flashpoint less than 23 °C

(a) having a boiling point or initial boiling point not exceeding 35 °C and/or highly toxic;

2301 41° (cont'd)

(cont'd) (b) having a boiling point or initial boiling point exceeding 35 °C and toxic or slightly toxic; such as:

	Highly toxic	Toxic	Slightly toxic
	%	%	%
<u>Azinphos-ethyl</u>	-	100->25	25-2
<u>Azinphos-methyl</u>	-	100->10	10-1
<u>Bromophos-ethyl</u>	-	-	100-14
<u>Carbophenotion</u>	-	100->20	20-2
<u>Chlorfenvinphos</u>	-	100->20	20-2
<u>Chlormephos</u>	-	100->15	15-1
<u>Chlorpyrifos</u>	-	-	100-10
<u>Chlorthiophos</u>	-	100->15	15-1
<u>Crotoxyphos</u>	-	-	100-15
<u>Crufomate</u>	-	-	100-90
<u>Cyanophos</u>	-	-	100-55
<u>DLF</u>	-	-	100-40
<u>Demethion</u>	100->0	-	-
<u>Demeton</u>	100->30	30->3	3->0
<u>Demeton-O(Systox)</u>	100->34	34->3.4	3.4-0.34
<u>Demeton-O-methyl</u>	-	-	100-35
<u>Demeton-S-methyl</u>	-	100->80	80-10
<u>Demeton-S-methylsulfone</u>	-	100->74	74-7.4
<u>Dialifos</u>	-	100->10	10-1
<u>Diazinon</u>	-	-	100-15
<u>Dichlofenthion</u>	-	-	100-54
<u>Dichlorvos</u>	-	100->35	35-7
<u>Dicrotophos</u>	-	100->25	25-2
<u>Dimefox</u>	100->20	20->2	2-0
<u>Dimethoate</u>	-	-	100-29
<u>Dioxathion</u>	-	100->40	40-4
<u>Disulfoton</u>	100->40	40->4	4->0
<u>Edifenphos</u>	-	-	100-30
<u>Endothion</u>	-	100->45	45-4
<u>EPN</u>	100->62	62->12.5	12.5-2.5
<u>Ethion</u>	-	100->25	25-2
<u>Ethoate-methyl</u>	-	-	100-25
<u>Ethoprophos</u>	100->65	65->13	13-2
<u>Fenaminphos</u>	100->40	40->4	4->0

2301^{41°}
(cont'd)

	Highly toxic	Toxic	Slightly toxic
	%	%	%
<u>Fenitrothion</u>	-	-	100-48
<u>Fensulfothion</u>	100->40	40->4	4->0
<u>Fenthion</u>	-	-	100-38
<u>Fonophos</u>	100->60	60->6	6-0.5
<u>Formothion</u>	-	-	100-65
<u>Heptenophos</u>	-	-	100-19
<u>Iprobenfos</u>	-	-	100-95
<u>Isofenphos</u>	-	100->60	60-6
<u>Isothioate</u>	-	-	100-25
<u>Isoxathion</u>	-	-	100-20
<u>Mecarbam</u>	-	100->30	30-3
<u>Mephosfolan</u>	100->25	25->5	5-0.5
<u>Methamidophos</u>	-	100->15	15-1.5
<u>Methidathion</u>	-	100->40	40-4
<u>Methyltrithion</u>	-	-	100-19
<u>Mevinphos</u>	100->60	60->5	5-0.5
<u>Monocrotophos</u>	-	100->25	25-2.5
<u>Naled</u>	-	-	100-50
<u>Omethoate</u>	-	-	100-10
<u>Oxydemeton-methyl</u>	-	100->93	93-9
<u>Oxydisulfoton</u>	100->70	70->5	5-0.5
<u>Paraaxon</u>	100->35	35->3	3-0.35
<u>Parathion</u>	100->40	40->4	4-0.4
<u>Parathion-methyl</u>	-	100->12	12-1.2
<u>Phenkapton</u>	-	-	100-10
<u>Phenthoat</u>	-	-	100-70
<u>Phorate</u>	100->20	20->2	2->0
<u>Phosalone</u>	-	-	100-24
<u>Phosfolan</u>	-	100->15	15-1
<u>Phosmet</u>	-	-	100-18
<u>Phosphamidon</u>	-	100->34	34-3
<u>Pirimiphos-ethyl</u>	-	-	100-28
<u>Propaphos</u>	-	100->75	75-15
<u>Prothoate</u>	-	100->15	15-1
<u>Pyrazophos</u>	-	-	100-45
<u>Pyrazoxon</u>	100->80	80->8	8-0.5
<u>Quinalphos</u>	-	100->52	52-5
<u>Salithion</u>	-	-	100-25
<u>Schradan</u>	-	100->18	18-3.6
<u>Sulfotep</u>	-	100->10	10-1
<u>Sulprofos</u>	-	-	100-18
<u>Temephos</u>	-	-	100-90
<u>TEPP</u>	100->10	10->0	-
<u>Terbufos</u>	100->15	15->3	3-0.74
<u>Thiomethon</u>	-	100->50	50-5
<u>Thionazin</u>	100->70	70->5	5-0.5
<u>Triamiphos</u>	-	100->20	20-1
<u>Triazophos</u>	-	-	100-13
<u>Trichlorfon</u>	-	-	100-23
<u>Trichloronat</u>	-	100->30	30-3
<u>Vamidothion</u>	-	-	100-10

- 2301 42° 2762 organochlorine pesticide, liquid, flammable,
 (cont'd) toxic, flashpoint less than 23 °C
 (a) having a boiling point or initial boiling point
 not exceeding 35 °C and/or highly toxic;
 (b) having a boiling point or initial boiling point
 exceeding 35 °C and toxic or slightly toxic;
 such as:

	Highly toxic	Toxic	Slightly toxic
	%	%	%
<u>Aldrin</u>	-	100->75	75-7
<u>Allidochlor</u>	-	-	100-35
<u>Camphechlor</u>	-	-	100-15
<u>Chlordane</u>	-	-	100-55
<u>Chlordimeform</u>	-	-	100-50
<u>Chlordimeform,hydrochloride</u>	-	-	100-70
<u>Chlorophacinone</u>	100->40	40->4	1-0.4
<u>Crimidin</u>	100->25	25->2	2->0
<u>DDT</u>	-	-	100-20
<u>Dibromo-1,2-chloro-3-</u> <u>propane</u>	-	-	100-34
<u>Dieldrine</u>	-	100->5	75-7
<u>Endosulfan</u>	-	100->80	80-8
<u>Endrin</u>	100->60	60->6	6-0.5
<u>Heptachlor</u>	-	100->80	80-8
<u>Isobenzane</u>	100->10	10->2	2-0.4
<u>Isodrin</u>	-	100->14	14-1
<u>Lindane (γ-BHC)</u>	-	-	100-15
<u>Mirex</u>	-	-	100-60
<u>Pentachlorophenol</u>	-	100->54	54-5

- 43° 2766 phenoxy pesticide, liquid, flammable, toxic, flashpoint
less than 23 °C

- (a) having a boiling point or initial boiling point not
 exceeding 35 °C and/or highly toxic;
 (b) having a boiling point or initial boiling point
 exceeding 35 °C and toxic or slightly toxic;
 such as:

	Highly toxic	Toxic	Slightly toxic
	%	%	%
<u>2,4-D</u>	-	-	100-75
<u>2,4-DB</u>	-	-	100-40
<u>2,4,5-T</u>	-	-	100-60
<u>Triadimefon</u>	-	-	100-70

- 44° 2758 carbamate pesticide, liquid, flammable, toxic,
flashpoint less than 23 °C

2301 44* (cont'd)
(cont'd)

- (a) having a boiling point or initial boiling point not exceeding 35 °C and/or highly toxic;
- (b) having a boiling point or initial boiling point exceeding 35 °C and toxic or slightly toxic;
such as:

	Highly toxic	Toxic	Slightly toxic
	%	%	%
<u>Aldicarb</u>	100->15	15->1	1->0
<u>Aminocarb</u>	-	100->60	60-6
<u>Bendiocarb</u>	-	100->65	65-5
<u>Benfuracarb</u>	-	-	100-20
<u>Butocarbexim</u>	-	-	100-30
<u>Carbaryl</u>	-	-	100-10
<u>Carbofuran</u>	-	100->10	10-1
<u>Cartap HCl</u>	-	-	100-40
<u>Diallate</u>	-	-	100-75
<u>Dimetan</u>	-	-	100-24
<u>Dimetilan</u>	-	100->50	50-5
<u>Dioxacarb</u>	-	-	100-10
<u>Formetanate</u>	-	100->40	40-4
<u>Isolan</u>	-	100->20	20-2
<u>Isoprocab</u>	-	-	100-35
<u>Mercaptodimethur</u>	-	100->70	70-7
<u>Methasulfocarb</u>	-	-	100-20
<u>Methomyl</u>	-	100->34	34-3
<u>Mexacarbate</u>	-	100->28	28-2
<u>Mobam</u>	-	-	100-14
<u>Oxamyl</u>	-	100->10	10-1
<u>Pyrimicarb</u>	-	-	100-29
<u>Promecarb</u>	-	-	100-14
<u>Promorit(Muritan)</u>	100->5.6	5.6->0.56	0.56->0
<u>Propoxur</u>	-	-	100-18

45* 2778 mercury based pesticide, liquid, flammable, toxic, flashpoint less than 23 °C

- (a) having a boiling point or initial boiling point not exceeding 35 °C and/or highly toxic;
- (b) having a boiling point or initial boiling point exceeding 35 °C and toxic or slightly toxic;
such as:

2301 45°
(cont'd) (cont'd)

	Highly toxic	Toxic	Slightly toxic
	%	%	%
<u>Phenylmercuric acetate (PMA)</u>	-	100->60	60-6
<u>Mercuric chloride</u>	-	100->70	70-7
<u>Chloro-methoxyethyl mercury</u>	-	100->40	40-4
<u>Mercury oxide</u>	-	100->35	35-3
<u>Phenylmercury pyrocatechin (PMB)</u>	-	100->60	60-6

46° 2787 organotin pesticide, liquid, flammable, toxic, flashpoint less than 23 °C

- (a) having a boiling point or initial boiling point not exceeding 35 °C and/or slightly toxic;
- (b) having a boiling point or initial boiling point exceeding 35 °C and toxic or slightly toxic; such as:

	Highly toxic	Toxic	Slightly toxic
	%	%	%
<u>Fentin acetate</u>	-	-	100-25
<u>Cyhexatin</u>	-	-	100-35
<u>Fentin hydroxyde</u>	-	-	100-20

47° 3024 coumarin derivative pesticide, liquid, flammable, toxic, flashpoint less than 23 °C

- (a) having a boiling point or initial boiling point not exceeding 35 °C and/or highly toxic;
- (b) having a boiling point or initial boiling point exceeding 35 °C and toxic or slightly toxic; such as:

2301 47° (cont'd)
(cont'd)

	Highly toxic	Toxic	Slightly toxic
	%	%	%
<u>Brodifacoum</u>	100->5	5->0.5	0.5-0.05
<u>Coumachlor</u>	-	-	100-10
<u>Coumafuryl</u>	-	-	100-80
<u>Coumaphos</u>	-	100->30	30-3
<u>Coumatetralyl</u> (Racumin)	-	100->34	34-3.4
<u>Dicoumarol</u>	-	-	100-10
<u>Difenacoum</u>	100->35	35->3.5	3.5-0.35
<u>Warfarin</u> (and <u>salts of warfarin</u>)	100->60	60->6	6-0.6

48° 2782 bipyridilium pesticide, liquid, flammable, toxic,
flashpoint less than 23 °C

- (a) having a boiling point or initial boiling point not exceeding 35 °C and/or highly toxic;
- (b) having a boiling point or initial boiling point exceeding 35 °C and toxic or slightly toxic; such as:

	Highly toxic	Toxic	Slightly toxic
	%	%	%
<u>Diquat</u>	-		100-45
<u>Paraquat</u>		100->40	40-8

49° 2760 arsenical pesticide, liquid, flammable, toxic,
flashpoint less than 23 °C

- (a) having a boiling point or initial boiling point not exceeding 35 °C and/or highly toxic;
- (b) having a boiling point or initial boiling point exceeding 35 °C and toxic or slightly toxic;

2301 49° (cont'd)
(cont'd)

such as:

	Highly toxic	Toxic	Slightly toxic
	%	%	%
<u>Arsenic trioxide</u>	-	100->40	40-4
<u>Calcium arsenate</u>	-	100->40	40-4
<u>Sodium arsenite</u>	-	100->20	20-2

50° 2776 copper based pesticide, liquid, flammable, toxic, flashpoint less than 23 °C

- (a) having a boiling point or initial boiling point not exceeding 35 °C and/or highly toxic;
- (b) having a boiling point or initial boiling point exceeding 35 °C and toxic or slightly toxic;
such as:

	Highly toxic	Toxic	Slightly toxic
	%	%	%
<u>Copper sulphate</u>	-	-	100-20

51° 2780 substituted nitrophenol pesticide, liquid, flammable, toxic, flashpoint less than 23 °C

- (a) having a boiling point or initial boiling point not exceeding 35 °C and/or highly toxic;
- (b) having a boiling point or initial boiling point exceeding 35 °C and toxic or slightly toxic;
such as:

2301 51° (cont'd)
(cont'd)

	Highly toxic	Toxic	Slightly toxic
	%	%	%
<u>Binapacryl</u>	-	-	100-25
<u>Dinobuton</u>	-	-	100-10
<u>Dinoseb</u>	-	100->40	40-8
<u>Dinoseb acetate</u>	-	-	100-10
<u>Dinoterb</u>	-	100->50	50-5
<u>Dinoterb acetate</u>	-	100->50	50-5
<u>DNOC</u>	-	100->50	50-5
<u>Medinoterb</u>	-	100->80	80-8

52° 2764 triazine pesticide, liquid, flammable, toxic, flashpoint less than 23 °C

- (a) having a boiling point or initial boiling point not exceeding 35 °C and/or highly toxic;
- (b) having a boiling point or initial boiling point exceeding 35 °C and toxic or slightly toxic; such as:

	Highly toxic	Toxic	Slightly toxic
	%	%	%
<u>Cyanazine</u>	-	-	100-35
<u>Terbumeton</u>	-	-	100-95

53° 2770 benzoic derivative pesticide, liquid, flammable, toxic, flashpoint less than 23 °C

- (a) having a boiling point or initial boiling point not exceeding 35 °C and/or highly toxic;
- (b) having a boiling point or initial boiling point exceeding 35 °C and toxic or slightly toxic; such as:

2301 53° (cont'd)
(cont'd)

	Highly toxic	Toxic	Slightly toxic
	%	%	%
<u>Tricamba</u>	-	-	100-60

54° 2774 phthalimide derivative pesticide, liquid, flammable, toxic, flashpoint less than 23 °C

- (a) having a boiling point or initial boiling point not exceeding 35 °C and/or highly toxic;
- (b) having a boiling point or initial boiling point exceeding 35 °C and toxic or slightly toxic; such as:

	Highly toxic	Toxic	Slightly toxic
	%	%	%
<u>*/</u>	-	-	-

55° 2768 phenyl urea pesticides, liquid, flammable, toxic, flashpoint less than 23 °C

- (a) having a boiling point or initial boiling point not exceeding 35 °C and/or highly toxic;
- (b) having a boiling point or initial boiling point exceeding 35 °C and toxic or slightly toxic; such as:

	Highly toxic	Toxic	Slightly toxic
	%	%	%
<u>*/</u>	-	-	-

*/ No pesticide currently assigned to this collective entry.

2301

(cont'd)

56° 2772 dithiocarbamate pesticide, liquid, flammable, toxic, flashpoint less than 23 °C

(a) having a boiling point or initial boiling point not exceeding 35 °C and/or highly toxic;

(b) having a boiling point or initial boiling point exceeding 35 °C and toxic or slightly toxic; such as:

	Highly toxic	Toxic	Slightly toxic
	%	%	%
<u>Metam-sodium</u>	-	-	-

57° 3021 pesticide, liquid, flammable, toxic, n.o.s., flashpoint less than 23 °C

(a) having a boiling point or initial boiling point not exceeding 35 °C and/or highly toxic;

(b) having a boiling point or initial boiling point exceeding 35 °C and toxic or slightly toxic;

nitrogenated organic compounds, such as:

	Highly toxic	Toxic	Slightly toxic
	%	%	%
<u>Benguinox</u>	-	-	100-20
<u>Chinomethionate</u>	-	-	100-50
<u>Cycloheximide</u>	100->40	40->4	4->0
<u>Drazoxolon</u>	-	-	100-25

Alkaloids, such as:

	Highly toxic	Toxic	Slightly toxic
	%	%	%
<u>Nicotine preparations</u>	-	100->25	25-5
<u>Strychnine</u>	100->20	20->0	-

2301
(cont'd)57*
(cont'd)

Other organo-metallic compounds, such as:

	Highly toxic	Toxic	Slightly toxic
	%	%	%
... */	-	-	-

Inorganic compounds of fluorine, such as:

	Highly toxic	Toxic	Slightly toxic
	%	%	%
<u>Barium silicofluoride</u>	-	-	100-35
<u>Sodium silicofluoride</u>	-	-	100-25

Inorganic compounds of thallium, such as:

	Highly toxic	Toxic	Slightly toxic
	%	%	%
<u>Thallium sulphate</u>	-	100->30	30-3

*/ No pesticide currently assigned to this collective entry.

2301 (cont'd)

Other pesticides, such as:

	Highly toxic	Toxic	Slightly toxic
	%	%	%
<u>ANTU</u>	100->40	40->4	4-0.8
<u>Blasticidine-S-3</u>	-	-	100-10
<u>Bromoxynil</u>	-	-	100-38
<u>Dazomet</u>	-	-	100-60
<u>Diphacinone</u>	100->25	25->3	3-0.2
<u>Difenzoquat</u>	-	-	100-90
<u>Dimexano</u>	-	-	100-48
<u>Endothal-sodium</u>	-	100->75	75-7
<u>Fenaminosulph</u>	-	100->50	50-10
<u>Fenpropathrin</u>	-	-	100-10
<u>Fluoracetamide</u>	-	100->25	25-2.5
<u>Imazalil</u>	-	-	100-64
<u>Ioxynil</u>	-	-	100-20
<u>Kelevan</u>	-	-	100-48
<u>Norbormide</u>	100->88	88->8.8	8.8-0.8
<u>Pindone (and salts of Pindone)</u>	-	-	100-55
<u>Rotenone</u>	-	-	100-25

Pyrethrinoids, such as:

	Highly toxic	Toxic	Slightly toxic
	%	%	%
<u>Cypermethrin</u>	-	-	100-32

- G. Substances having a flashpoint above 61 °C which are carried or handed over for carriage at or above their flashpoint

61° (c) 3256 Elevated temperature liquid, flammable, n.o.s. with a flashpoint above 61 °C at or above its flashpoint.

2301

(cont'd)

H. Empty packagings

71° Empty packagings including empty intermediate bulk containers, (IBCs), empty tank-vehicles, empty demountable tanks, empty tank-containers, uncleaned having contained substances of Class 3.

2301a Neither the provisions for this Class contained in this Annex nor those contained in Annex B are applicable to:

(1) Substances of 1° to 5°, 21° to 26° and 31° to 34° and slightly toxic substances of 41° to 57° carried in conformity with the following provisions:

- (a) Substances classified under (a) of each item: not more than 500 ml per inner packaging and not more than 1 litre per package;
- (b) Substances classified under (b) of each item except 5° (b) and alcoholic beverages of 3° (b): not more than 3 litres per inner packaging and not more than 12 litres per package;
- (c) Alcoholic beverages of 3° (b): not more than 5 litres per inner packaging;
- (d) Substances classified under 5° (b): not more than 5 litres per inner packaging and not more than 20 litres per package;
- (e) Substances classified under (c) of each item: not more than 5 litres per inner packaging and not more than 45 litres per package.

These quantities of substances shall be carried in combination packagings conforming at least to the conditions of marginal 3538.

The "General conditions of packing" of marginal 3500 (1), (2) and (5) to (7) shall be observed.

NOTE: In the case of homogeneous mixtures containing water, the quantities specified relate only to the substance of this Class contained in those mixtures.

- 2301a (cont'd)
- (2) Alcoholic beverages of 31° (c) in packagings containing not more than 250 litres.
 - (3) The motor-fuel contained in the tanks of transport vehicles for their propulsion or the operation of their specialized equipment (refrigerators, for example). The fuel cocks between the engine and the fuel tank of motor cycles and motor-assisted pedal cycles whose tanks contain fuel, shall be closed during transport; in addition, these motor cycles and motor-assisted pedal cycles shall be loaded upright and secured against falling.

2. Provisions

A. Packages

1. General conditions of packing

- 2302
- (1) Packagings shall satisfy the conditions of Appendix A.5, unless special conditions for the packing of certain substances are prescribed in marginals 2303 to 2310.
 - (2) Intermediate bulk containers (IBCs) shall satisfy the conditions of Appendix A.6.
 - (3) In accordance with the provisions of marginals 2300 (3) and 3511 (2) or 3611 (2) the following shall be used:

Packagings of packing group I, marked with the letter "X", for the very dangerous substances classified under the letter (a) of each item;

Packagings of packing group II or I, marked with the letter "Y", or "X", or IBCs of packing group II, marked with the letter "Y", for the dangerous substances classified under the letter (b) of each item;

Packagings of packing group III, II or I, marked with the letter "Z", "Y" or "X", or IBCs of packing group III or II, marked with the letter "Z" or "Y", for the less dangerous substances classified under the letter (c) of each item.

NOTE: For the carriage of substances of Class 3 in tank-vehicles, demountable tanks or tank-containers, see Annex B.

2. Special conditions for packing of certain substances

- 2303 Nitroglycerine, solution in alcohol, of 6° shall be packed in metal cans of not more than 1 litre capacity each, overpacked in a wooden box capable of containing not more than 5 litres of solution. Metal cans shall be completely surrounded with absorbent cushioning material. Wooden boxes shall be completely lined with suitable material impervious to water and nitroglycerine.

Packages of this kind shall satisfy the test requirements for combination packagings in accordance with Appendix A.5 for packing group II.

- 2304 (1) Propyleneimine of 12° shall be packed:

- (a) in steel receptacles of sufficient thickness, which shall be closed by a screw-threaded bung or plug rendered leakproof both to liquid and to vapour by means of a suitable gasket. The receptacles shall initially and periodically, at least every five years, be tested at a pressure of not less than 0.3 MPa (3 bar) gauge pressure in accordance with marginals 2215 (1) and 2216. Each receptacle shall be secured by absorbent cushioning materials in a strong leakproof protective metal packaging. The protective packaging shall be hermetically closed and its closure shall be secured against any inadvertent opening. The mass of the contents shall not exceed 0.67 kg per litre of capacity. A package shall not weigh more than 75 kg. Packages weighing more than 30 kg, other than those forwarded as a full load, shall be fitted with means of handling; or
- (b) in steel receptacles of sufficient thickness, which shall be closed by a screw-threaded bung and a screw-threaded protective cap or equivalent device leakproof both to liquid and to vapour. The receptacles shall initially and periodically, at least every five years, be tested at a pressure of at least 1 MPa (10 bar) gauge pressure in accordance with marginals 2215 (1) and 2216. The mass of the contents shall not exceed 0.67 kg per litre of capacity. A package shall not weigh more than 75 kg.

2304 (1) (cont'd)(c) Receptacles in conformity with (a) and (b) shall bear, in clearly legible and durable characters:

the name or mark of the manufacturer and the number of the receptacle;

the word "propyleneimine";

the tare of the receptacle and its maximum permitted mass when filled;

the date (month and year) of the initial test and of the most recent test undergone;

the stamp of the expert who carried out the tests and examinations.

(2) Ethyl isocyanate of 13° shall be packed:

(a) in hermetically closed receptacles made of pure aluminium and having a capacity not exceeding 1 litre, which shall not be filled beyond 90% of their capacity. The receptacles shall be secured, not more than 10 to a box, with appropriate cushioning material in a wooden box. Packages of this kind shall satisfy the test requirements for combination packagings conforming to marginal 3538 for packing group I, and shall not weigh more than 30 kg; or

(b) in receptacles made of pure aluminium having a wall thickness of not less than 5 mm or in receptacles of stainless steel. The receptacles shall be fully welded and shall initially and periodically, at least every five years, be tested at a pressure of at least 0.5 MPa (5 bar) gauge pressure in accordance with marginals 2215 (1) and 2216. They shall be so closed as to be leakproof by means of two closures one above the other, one of which shall be screw-threaded or secured in an equally effective manner.

The degree of filling shall be not more than 90%.

Drums weighing more than 100 kg shall be fitted with rolling hoops or stiffening ribs;

2304 (2)

(cont'd) (cont'd)(c) Receptacles in conformity with (b) shall bear, in clearly legible and durable characters:

the name or mark of the manufacturer and the number of the receptacle;

the words "ethyl isocyanate";

the tare of the receptacle and its maximum permitted mass when filled;

the date (month and year) of the initial test and of the most recent test undergone;

the stamp of the expert who carried out the tests and examinations.

2305 Substances classified under (a) of the various items shall be packed:

- (a) in non-removable head steel drums conforming to marginal 3520; or
- (b) in non-removable head aluminium drums conforming to marginal 3521; or
- (c) in non-removable head steel jerricans conforming to marginal 3522; or
- (d) in non-removable head plastics drums of a capacity not exceeding 60 litres or non-removable head plastics jerricans conforming to marginal 3526; or
- (e) in composite packagings (plastics material) conforming to marginal 3537; or
- (f) in combination packagings with inner packagings of glass, plastics material or metal conforming to marginal 3538.

- 2306 (1) Substances classified under (b) of the various items shall be packed:
- (a) in steel drums conforming to marginal 3520; or
 - (b) in aluminium drums conforming to marginal 3521; or
 - (c) in steel jerricans conforming to marginal 3522; or
 - (d) in plastics drums or jerricans conforming to marginal 3526; or
 - (e) in composite packagings (plastics material) conforming to marginal 3537; or
 - (f) in combination packagings conforming to marginal 3538.

NOTE 1 to (a), (b), (c) and (d): Nitromethane of 3° (b) shall not be carried in removable head packagings.

NOTE 2 to (a), (b), (c) and (d): Simplified conditions are applicable to removable-head drums or jerricans for viscous substances having a viscosity above 200 mm²/s at 23 °C (see marginals 3512, 3553, 3554 and 3560).

(2) Substances classified under (b) of 3°, 15°, 17°, 22°, 24° and 25° as well as the slightly toxic substances classified under (b) of 41° to 57° may also be packed in composite packagings (glass, porcelain or stoneware) conforming to marginal 3539.

(3) Substances classified under (b) of the various items with the exception of nitromethane of 3° (b) which have a vapour pressure at 50 °C of not more than 110 kPa (1.10 bar) may also be packed in metal IBCs conforming to marginal 3622, in rigid plastics IBCs conforming to marginal 3624 or in composite IBCs with rigid plastics inner receptacle conforming to marginal 3625.

- 2307 (1) Substances classified under (c) of the various items shall be packed:

- (a) in steel drums conforming to marginal 3520; or
- (b) in aluminium drums conforming to marginal 3521; or

- 2307 (1) (c) in steel jerricans conforming to marginal 3522; or
(cont'd) (cont'd)
- (d) in plastics drums or jerricans conforming to marginal 3526; or
 - (e) in composite packagings (plastics material) conforming to marginal 3537; or
 - (f) in combination packagings conforming to marginal 3538; or
 - (g) in composite packagings (glass, porcelain or stoneware) conforming to marginal 3539.

NOTE to (a), (b), (c) and (d): Simplified conditions are applicable to removable-head drums and jerricans for viscous substances having a viscosity of more than 200 mm²/s at 23 °C (see marginals 3512, 3553, 3554 and 3560).

(2) Substances classified under (c) of the various items may also be packed in metal IBCs conforming to marginal 3622, in rigid plastics IBCs conforming to marginal 3624 or in composite IBCs with rigid plastics inner receptacle conforming to marginal 3625.

- 2308 (1) Ethyl alcohol and its aqueous solutions and alcoholic beverages of 3° (b) and 31° (c) may also be packed in bung-type wooden barrels conforming to marginal 3524.

(2) Alcoholic beverages containing more than 24% alcohol but not more than 70% by volume, when transported as part of the manufacturing process, may be transported in wooden casks with a capacity of not more than 500 litres, deviating from the provisions of Appendix A.5 on the following conditions:

- (a) the casks shall be checked and tightened before filling;
- (b) sufficient ullage (not less than 3%) shall be left to allow for the expansion of the liquid;
- (c) the casks shall be transported with the bungholes pointing upwards and,

2308 (2) (d) the casks shall be transported in containers meeting the requirements of the International Convention for Safe Containers (CSC),* 11/ as amended.** Each cask shall be secured in custom made cradles and be wedged by appropriate means to prevent them from being displaced in any way during transport.

(cont'd)

(3) Substances of 3° (b), 4° (b), 5° (b) and (c), 20° (b), 31° (c), 32° (c), 33° (c), 34° (c) and the slightly toxic substances classified under (b) of 41° to 57° may also be packed in light gauge metal packagings conforming to marginal 3540. Simplified conditions are applicable to removable-head light gauge metal packagings for viscous substances having a viscosity of more than 200 mm²/s at 23 °C and for substances of 5° (c). (See marginals 3512 and 3552 to 3554).

NOTE: Nitromethane of 3° (b) shall not be carried in removable-head packagings.

(4) The following substances: 1133 adhesives, 1210 printing ink, 1263 paint, 1263 paint-related material, 1866 resin solution and 3269 polyester resin kit of 5° (b), 5° (c) and 31° (c) may be carried in quantities not exceeding 5 litres in metal or plastics packagings meeting only the requirements of marginal 3500 (1), (2) and (5) to (7), provided the packagings are secured on pallets by straps, by shrink or stretch-wrapping or by other suitable means, or provided the packagings are inner packagings of a combination packaging with a maximum total gross mass of 40 kg. The information in the transport document shall conform to marginal 2314 (1) and (3).

2309 Aircraft hydraulic power unit fuel tanks of 28° are admitted subject to either of the following conditions.

(a) the unit shall consist of an aluminium pressure vessel made from tubing and having welded heads. Primary containment of the fuel within this vessel shall consist of a welded aluminium bladder having a maximum internal volume of 46 litres. The outer vessel shall have a

11/ International Convention for Safe Containers (Geneva, 1972), as amended, published by the International Maritime Organization, 4 Albert Embankment, London SE1 7SR.

* United Nations, *Treaty Series*, vol. 1064, p. 3.

** *Ibid.*, vol. 1263, p. 477; vol. 1348, p. 328 and vol. 1714, No. A-16198.

2309 (a) minimum design gauge pressure of 1.275 kPa and a minimum
(cont'd) (cont'd) burst gauge pressure of 2.755 kPa. Each vessel shall be leak-checked during manufacture and before shipment and shall be found leakproof. The complete inner unit shall be securely packed in non-combustible cushioning material, such as vermiculite, in a strong outer tightly closed metal packaging which shall adequately protect all fittings. Maximum quantity of fuel per unit and package is 42 litres; or

(b) the unit shall consist of an aluminium pressure vessel. Primary containment of the fuel within this vessel shall consist of a welded hermetically sealed fuel compartment with an elastomeric bladder having a maximum internal volume of 46 litres. The pressure vessel shall have a minimum design gauge pressure of 2.860 kPa and a minimum burst gauge pressure of 5.170 kPa. Each vessel shall be leak-checked during manufacture and before shipment and shall be found leakproof. The complete inner unit shall be securely packed in non-combustible cushioning material, such as vermiculite, in a strong outer tightly closed metal packaging which shall adequately protect all fittings. Maximum quantity of fuel per unit and package is 42 litres.

2310 Receptacles or IBCs, containing preparations of 31° (c), 32° (c), and 33° (c), which give off small quantities of carbon dioxide and/or nitrogen, shall be vented, in accordance with marginals 3500 (8) or 3601 (6).

3. Mixed packing

2311 (1) Substances covered by the same item number may be packed together in a combination packaging conforming to marginal 3538.

(2) Substances or articles of different items of this Class in quantities not exceeding 5 litres per inner packaging, may be packed together and/or with goods not subject to the provisions of ADR in a combination packaging conforming to marginal 3538, provided they do not react dangerously with one another.

(3) Substances of 6°, 7°, 12° and 13° shall not be packed with other goods.

2311 (cont'd) (4) Substances classified under (a) of the various items shall not be packed together with substances and articles of classes 1 and 5.2 (other than hardeners and compound systems) and material of class 7.

(5) Except as otherwise specially provided, substances classified under (a) of the various items, in quantities not exceeding 0.5 litre per inner packaging and 1 litre per package, and substances classified under (b) or (c) of the the various items, in quantities not exceeding 5 litres per inner packaging may be packed together in a combination packaging conforming to marginal 3538 with substances or articles of other classes, provided that mixed packing is also permitted for substances or articles of these classes, and/or with goods which are not subject to the provisions of ADR, provided they do not react dangerously with one another.

(6) The following are considered dangerous reactions:

- (a) combustion and/or giving off considerable heat;
- (b) emission of flammable and/or toxic gases;
- (c) formation of corrosive liquids;
- (d) formation of unstable substances.

(7) The mixed packing of acid substances with basic substances in a package shall not be permitted if the two substances are packed in fragile receptacles.

(8) The provisions of marginals 2001 (7), 2002 (6) and (7) and 2302 shall be complied with.

(9) If wooden or fibreboard boxes are used, a package shall not weigh more than 100 kg.

4. Marking and danger labels on packages (see Appendix A9)

Marking

2312 (1) Each package shall be clearly marked with the identification number of the goods to be entered in the transport document, preceded by the letters "UN".

2312 Danger labels

(cont'd)

- (2) Packages containing substances or articles of this Class shall bear a label conforming to model No. 3.
- (3) Packages containing substances of 11° to 19°, 32° and 41° to 57° shall in addition bear a label conforming to model No. 6.1.
- (4) Packages containing substances of 21° to 26° and 33° shall in addition bear a label conforming to model No. 8.
- (5) Packages containing substances or articles of 27° and 28° shall in addition bear a label conforming to model No. 6.1 and a label conforming to model No. 8.
- (6) Packages containing fragile receptacles not visible from the outside shall in addition bear on two opposite sides a label conforming to model No. 12.
- (7) Packages containing receptacles, the closures of which are not visible from the outside and packages containing vented receptacles or vented receptacles without outer packaging shall in addition bear on two opposite sides a label conforming to model No. 11.

2313-**B. Particulars in the transport document**

- 2314** (1) The description of the goods in the transport document shall conform to one of the identification numbers and names underlined in marginal 2301.

If the substance is not mentioned by name, but is assigned to an n.o.s. entry, or to another collective entry the description of the goods shall consist of the identification number and the n.o.s. designation or the collective entry designation, followed by the chemical or technical name. 4/

4/ The technical name shall be a name currently used in scientific and technical handbooks, journals and texts. Trade names shall not be used for this purpose.

2314 (1) The description of the goods shall be followed by particulars of the class, the item number, if applicable the letter, and the initials "ADR" (or "RID"), (e.g. "3, 1" (a), ADR").

For substances and preparations of 41° to 57°, the name shall be entered for the most dangerous component, both of the pesticide element 5/ and of the flammable liquid element (e.g. "parathion in hexane").

For the carriage of wastes (see marginal 2000 (5)), the description of the goods shall be: "Waste containing ...", the component(s) used for the classification of the waste under marginal 2002 (8) to be entered under its/their chemical name(s), e.g. "Waste, containing 1230 methanol, 3, 17" (b)".

For the carriage of solutions or mixtures (such as preparations and wastes) containing several components subject to the provisions of ADR, it will not in general be necessary to refer to more than two components which most predominantly contribute to the danger or dangers of the solutions and mixtures.

For the carriage of solutions or mixtures containing only one component subject to the provisions of ADR, the words "solution" or "mixture" should be added as part of the name in the transport document (see marginal 2002 (8)).

If a solution or mixture specifically named or containing a specifically named substance is not subject to the conditions of this Class in accordance with marginal 2300 (5), the consignor may enter in the transport document: "Not goods of Class 3".

(2) For consignments in accordance with the NOTE under E of marginal 2301, the consignor shall enter in the transport document "Transport in accordance with NOTE under E of marginal 2301".

(3) For consignments in accordance with marginal 2308 (4), the consignor shall enter in the transport document "Transport in accordance with marginal 2308 (4)".

5/ For the description of the pesticide element, the name according to ISO Standard 1750:1981 (see marginal 2601) should be used, if it appears therein.

2315-
2321

C. Empty packagings

2322

(1) Empty packagings, including empty IBCs, uncleaned, of 71°, shall be closed in the same way and with the same degree of leakproofness as if they were full.

(2) Empty packagings, including empty IBCs, uncleaned, of 71°, shall bear the same danger labels as if they were full.

(3) The description in the transport document shall conform to one of the names underlined in 71°, e.g. "Empty packaging 3, 71°, ADR".

In the case of empty tank-vehicles, empty demountable tanks and empty tank-containers, uncleaned, this description shall be completed by adding the words "Last load", together with the name and item number of the goods last loaded, e.g. "Last load 1089 acetaldehyde, 1° (a)".

2323-
2324

D. Transitional measures

2325

Substances of class 3 may be carried until 30 June 1995 in accordance with the requirements for class 3 applicable until 31 December 1994. The transport document shall, in such cases, bear the inscription "Carriage in accordance with the ADR in force before 1 January 1995".

2326-
2399*

CLASS 4.1. FLAMMABLE SOLIDS

2400 (2) Amend as follows:

"(2) The title of Class 4.1 covers substances and articles which have a melting-point greater than 20°C or are pasty, according to the criteria of the penetrometer test (see Appendix A.3, marginal 3310) or are not liquid according to the ASTM D 4359-90 test method, or which are self-reactive liquids. The following are assigned to Class 4.1:

- readily flammable solid substances and articles, and those which can be ignited by flying sparks or can cause fire through friction;
- self-reactive substances which (at normal or elevated temperatures) are liable to undergo strongly exothermal decomposition caused by excessively high carriage temperatures or by contact with impurities;
- substances related to self-reactive substances, which are distinguished from the latter by having a self-accelerating decomposition temperature greater than 75°C, and are liable to undergo a strongly exothermic decomposition and may, in certain packagings, meet the criteria for explosive substances of Class 1;
- explosives, which are wetted with such a quantity of water or alcohol or which contain such a quantity of plasticizing or inerting agent, that their explosive properties are neutralized.

NOTE 1: Self-reactive substances and formulations of self-reactive substances are not considered to be self-reactive substances of Class 4.1 if:

- they are explosives according to the criteria of Class 1;
- they are oxidizing substances according to the assignment procedure of Class 5.1;

2400 (2)
(cont'd)

- they are organic peroxides according to the criteria of Class 5.2;
- their heat of decomposition is less than 300 J/g;
- their self-accelerating decomposition temperature (SADT) is greater than 75°C for a 50 kg package;
- tests have proved that they are exempted as type G (see Appendix A.1, marginal 3104 (2) (g)).

NOTE 2: The heat of decomposition can be determined using any internationally recognized method e.g. Differential Scanning Calorimetry and adiabatic calorimetry.

NOTE 3: The self-accelerating decomposition temperature (SADT) is the lowest temperature at which self-accelerating decomposition may occur with a substance in the packaging as used during carriage. Requirements for the determination of the SADT are given in Appendix A.1, marginal 3103."

(3) Amend the beginning of paragraph (3) to read:

"(3) The substances and articles of Class 4.1 are subdivided as follows:

- A Solid organic flammable substances and articles
- B Solid inorganic flammable substances and articles
- C Explosive substances in non-explosive state
- D Substances related to self-reactive substances
- E Self-reactive substances not requiring temperature control
- F Self-reactive substances requiring temperature control
- G Empty packagings"

2400 Append to paragraph (3) the following:
(cont'd)

"Substances related to self-reactive substances are assigned to letters (b) or (c) of various items."

(12) to (20) Add the following new heading and paragraphs:

"Self-reactive substances"

- (12) The decomposition of self-reactive substances can be initiated by heat, contact with catalytic impurities (e.g. acids, heavy-metal compounds, bases), friction or impact. The rate of decomposition increases with temperature and varies with the substance. Decomposition, particularly if no ignition occurs, may result in the evolution of toxic gases or vapours. For certain self-reactive substances, the temperature should be controlled. Some self-reactive substances may decompose explosively, particularly if confined. This characteristic may be modified by the addition of diluents or by the use of appropriate packagings. Some self-reactive substances burn vigorously. Self-reactive substances are, for example, some compounds of the types listed below:

aliphatic azo compounds ($-C-N=N-C-$);
organic azides ($-C-N_3$);
diazonium salts ($-CN_2^+ Z^-$);
N-nitroso compounds ($-N-N=O$); and
aromatic sulphonylhydrazides ($-SO_2-NH-NH_2$).

This list is not exhaustive and substances with other reactive groups and some mixtures of substances may have similar properties.

(13) Self-reactive substances are classified into seven types according to the degree of danger. The principles to be applied to the classification of substances not listed in marginal 2401 are set out in Appendix A.1, marginal 3104. The types of self-reactive substance range from type A, which is not accepted for carriage in the packaging in which it is tested, to type G, which is not subject to the provisions for self-reactive substances of Class 4.1 (see marginal 2414 (5)). The classification of types B to F is directly related to the maximum quantity allowed in one packaging.

2400 (14) The following self-reactive substances shall not be permitted
(cont'd) for carriage:

- self-reactive substances type A (see Appendix A.1, marginal 3104 (2) (a));

(15) Self-reactive substances and formulations of self-reactive substances listed in marginal 2401 are assigned to 31* to 50*, identification numbers 3221 to 3240.

The classifications for substances of 31* to 50* are based on the technically pure substance (except where a concentration of less than 100% is specified). For other concentrations, the substance may be classified differently following the procedures in Appendix A.1, marginal 3104.

The collective entries specify:

- self-reactive substances types B to F, see paragraph (13) above;
- physical state (liquid / solid); and
- temperature control (when required), see paragraph (20) below.

(16) Classification of self-reactive substances or formulations of self-reactive substances not listed in marginal 2401 and assignment to a collective entry shall be made by the competent authority of the country of origin. If the country of origin is not a party to ADR, the classification and the conditions of carriage shall be recognized by the competent authority of the first ADR country reached by the consignment.

(17) Activators, such as zinc compounds, may be added to some self-reactive substances to change their reactivity. Depending on both the type and the concentration of the activator, this may result in a decrease in thermal stability and a change in explosive properties. If either of these properties is altered, the new formulation shall be assessed in accordance with the classification procedure.

2400 (cont'd) (18) Samples of self-reactive substances or formulations of self-reactive substances not listed in marginal 2401, for which a complete set of test results is not available and which are to be carried for further testing or evaluation, shall be assigned to one of the appropriate entries for self-reactive substances type C provided the following conditions are met:

- the available data indicates that the sample would be no more dangerous than self-reactive substances type B;
- the sample is packaged in accordance with packing method OP2A or OP2B and the quantity per transport unit is limited to 10 kg;
- the available data indicate that the control temperature, if any, is sufficiently low to prevent any dangerous decomposition and sufficiently high to prevent any dangerous phase separation.

(19) In order to ensure safety during carriage, self-reactive substances are in many cases desensitized by use of a diluent. Where a percentage of a substance is stipulated, this refers to the percentage by mass, rounded to the nearest whole number. If a diluent is used, the self-reactive substance shall be tested with the diluent present in the concentration and form used in carriage. Diluents which may allow a self-reactive substance to concentrate to a dangerous extent in the event of leakage from a packaging shall not be used. Any diluent shall be compatible with the self-reactive substance. In this regard, compatible diluents are those solids or liquids which have no detrimental influence on the thermal stability and hazard type of the self-reactive substance. Liquid diluents in formulations requiring temperature control (see paragraph (20)) shall have a boiling point of at least 60°C and a flash point not less than 5°C. The boiling point of the liquid shall be at least 50°C higher than the control temperature of the self-reactive substance.

2400
(cont'd)

(20) The control temperature is the maximum temperature at which the self-reactive substance can be safely carried. It is assumed that the temperature of the immediate surroundings of a package only exceeds 55°C during carriage for a relatively short time in a 24 hour period. In the event of loss of temperature control, it may be necessary to implement emergency procedures. The emergency temperature is the temperature at which such procedures shall be implemented.

The control and emergency temperatures are derived from the SADT (see Table 1). The SADT shall be determined in order to decide whether a substance shall be subjected to temperature control during carriage. Provisions for the determination of the SADT are given in Appendix A.1, marginal 3103.

Table 1 DERIVATION OF CONTROL AND EMERGENCY TEMPERATURES

SADT	Control temperature	Emergency temperature
20°C or less	20°C below SADT	10°C below SADT
over 20°C to 35°C	15°C below SADT	10°C below SADT
over 35°C	10°C below SADT	5°C below SADT

Self-reactive substances with an SADT not greater than 55°C shall be subject to temperature control during carriage. Where applicable, control and emergency temperatures are listed in marginal 2401. The actual temperature during carriage may be lower than the control temperature but shall be selected so as to avoid dangerous separation of phases."

- 2401 Amend the names of substances corresponding to identification numbers listed below as indicated:

<u>Item number</u>	<u>Identification number</u>	<u>Name: should read</u>
1* (b) and 5*	1345 and 3176	(French text only)
6* (b)	<u>1325</u>	(French name only)
6* (c)	<u>1328</u>	<u>hexamethylenetetramine</u>
7* (b) and (c)	<u>2926</u>	<u>flammable solid, toxic,</u> <u>organic, n.o.s.</u>
8* (b) and (c)	<u>2925</u>	<u>flammable solid,</u> <u>corrosive, organic,</u> <u>n.o.s.</u>
11* (b) and (c)	<u>3178</u>	(French name only)
11* (c)	add : " <u>2687 dicyclohexylammonium nitrite</u> "	
13* (b) and (c)	<u>3089</u>	<u>metal powder, flammable,</u> <u>n.o.s.</u>
13* (c)	<u>2878</u>	<u>titanium sponge granules</u>
		or
	<u>2878</u>	<u>titanium sponge powder</u>
16* (b) and (c)	<u>3179</u>	<u>flammable solid, toxic,</u> <u>inorganic, n.o.s.</u>
17* (b) and (c)	<u>3180</u>	<u>flammable solid,</u> <u>corrosive, inorganic,</u> <u>n.o.s.</u>

2401

(cont'd)

<u>Item number</u>	<u>Identification number</u>	<u>Name: should read</u>
24° (a)	<u>2557</u>	<u>nitrocellulose, with not more than 12.6% nitrogen, by dry mass, mixture with or without plasticizer, with or without pigment</u>

(NOTE 1 to be amended accordingly)

25° (a) NOTE 2: to be deleted and NOTE 1 becomes NOTE.

Section D, Delete item 26° and the whole of section D, and replace by the following new section D:

"D. Substances related to self-reactive substances.

26° The following substances related to self-reactive substances:

- (b) 3242 azodicarbonamide
- (c) 2956 5-tert-butyl-2,4,6-trinitro-m-xylene (musk xylene)
3251 isosorbide-5-mononitrate

NOTE 1: Special packing requirements are applicable for substances of 26° [see marginal 2404(3)].

NOTE 2: Isosorbide-5-mononitrate or formulations of this substance which have been shown by the performance of tests series 2 of the Class 1 assignment procedure (see Appendix A.1, marginal 3101 (1)) to be too insensitive for inclusion in Class 1 are not subject to the provisions of ADR."

Section E, Section E becomes Section G.

41° (former) End, read:

"... uncleaned which have contained substances of Class 4.1"

41* (former) becomes 51*.

Insert a new section E to read:

***E. Self-reactive substances not requiring temperature control**

31*(b) 3221 self-reactive liquid type B */

32*(b) 3222 self-reactive solid type B, such as:

Substance	Concentration (%)	Packing method (see marginal 2405)
<u>2-diazo-1-naphthol-4-sulphonylchloride</u>	100	OP5B
<u>2-diazo-1-naphthol-5-sulphonylchloride</u>	100	OP5B

33*(b) 3223 self-reactive liquid type C, such as

Substance	Packing method (see marginal 2405)
<u>self-reactive liquid, sample 1/</u>	OP2A

1/ See marginal 2400(18).

*/ No self-reactive substances are currently included under this item.

2401 34*(b) 3224 self-reactive solid type C, such as:
(cont'd)

Substance	Con- cen- tra- tion (%)	Packing method (see marginal 2405)
<u>N,N'-dinitroso-N,N'-dimethylterephthalamide</u> , as a paste	72	OP6B
<u>N,N'-dinitrosopentamethylenetetramine</u> 1/ <u>self-reactive solid, sample 2/</u>	82	OP6B OP2B

1/ With a compatible diluent having a boiling point of not less than 150°C

2/ See marginal 2400(18).

35*(b) 3225 self-reactive liquid type D. */

36*(b) 3226 self-reactive solid type D, such as:

Substance	Con- cen- tra- tion (%)	Packing method (see marginal 2405)
<u>1,1'-azodi-(hexahydrobenzonitrile)</u>	100	OP7B
<u>benzene-1,3-disulphonylhydrazide</u> , as a paste	52	OP7B
<u>benzene sulphonylhydrazide</u>	100	OP7B
<u>4-(benzyl(ethyl)amino)-3-ethoxybenzenediazonium zinc chloride</u>	100	OP7B
<u>3-chloro-4-diethylaminobenzenediazonium zinc chloride</u>	100	OP7B
<u>diphenyloxide-4,4'-disulphonylhydrazide</u>	100	OP7B
<u>4-dipropylaminobenzenediazonium zinc chloride</u>	100	OP7B
<u>4-methylbenzenesulphonylhydrazide</u>	100	OP7B
<u>sodium 2-diazo-1-naphthol-4-sulphonate</u>	100	OP7B
<u>sodium 2-diazo-1-naphthol-5-sulphonate</u>	100	OP7B

*/ No self-reactive substances are currently included under this item.

2401

(cont'd)

37* (b) 3227 self-reactive liquid type F. */38* (b) 3228 self-reactive solid type F. */39* (b) 3229 self-reactive liquid type F. */40* (b) 3230 self-reactive solid type F. */

Section F (new), insert a new section F to read:

"F. Self-reactive substances requiring temperature control.

NOTE: Substances of 41* to 50* are self-reactive substances which decompose easily at normal temperatures and shall therefore be carried only under conditions of adequate refrigeration. For these self-reactive substances, the maximum temperature during carriage shall not exceed the control temperature indicated.

41* (b) 3231 self-reactive liquid type B, temperature controlled */42* (b) 3232 self-reactive solid type B, temperature controlled, such as:

Substance	Concentration (%)	Packing method (see marginal 2405)
<u>azodicarbonamide formulation type B 1/</u>	< 100	OP5B

- 1/ Azodicarbonamide formulations which fulfil the criteria of Appendix A.1, marginal 3104 (2) (b). The control and emergency temperatures shall be determined by the procedure in marginal 2400 (20).

*/ No self-reactive substances are currently included under this item.

2401 (cont'd)

2401 (cont'd)

43° (b) 3233 self-reactive liquid type C, temperature controlled, such as:

Substance	Packing method (see marginal 2405)
<u>self-reactive liquid, sample, temperature controlled 1/</u>	OP2A

1/ See marginal 2400 (18).

44° (b) 3234 self-reactive solid type C, temperature controlled,
such as:

Substance	Concen- tration (%)	Packing method (see marginal 2405)	Control tempe- rature (°C)	Emer- gency temper- ature (°C)
<u>azodicarbonamide formulation type C 1/</u>	<100	OP6B		
<u>2,2'- azodi(isobutyronitrile)</u>	100	OP6B	+40	+45
<u>3-methyl-4-(pyrrolidin-1- yl)benzenediazonium tetrafluoroborate</u>	95	OP6B	+45	+50
<u>self-reactive solid, sample, temperature controlled 2/</u>		OP2B		
<u>tetramine palladium (II) nitrate</u>	100	OP6B	+30	+35

1/ Azodicarbonamide formulations which fulfil the criteria of Appendix A.1, marginal 3104 (2) (c). The control and emergency temperatures shall be determined by the procedure in marginal 2400 (20).

2/ See marginal 2400 (18).

2401 (cont'd)

- 45°(b) 3235 self-reactive liquid type D, temperature controlled,
such as:

Substance	Con- centra- tion (%)	Packing method (see marginal 2405)	Control tempera- ture (°C)	Emergency tempera- ture (°C)
<u>2,2'-azodi(ethyl 2- methylpropionate)</u>	100	OP7A	+20	+25

- 46°(b) 3236 self-reactive solid type D, temperature controlled,
such as:

2401 (cont'd)

Substance	Con- cen- tra- tion (%)	Packing method (see marginal 2405)	Control temp- era- ture (°C)	Emer- gency temp- era- ture (°C)
<u>azodicarbonamide formulation</u>				
<u>type D 1/</u>	<100	OP7B		
<u>2,2'-azodi(2,4-di-methyl-4-methoxyvalero- nitrile)</u>	100	OP7B	-5	+5
<u>2,2'-azodi(2,4-dimethylvaleronitrile)</u>	100	OP7B	+10	+15
<u>2,2'-azodi(2-methylbutyronitrile)</u>	100	OP7B	+35	+40
<u>4-(benzyl(methyl)amino)-3-ethoxybenzene- diazonium zinc chloride</u>	100	OP7B	+40	+45
<u>2,5-diethoxy-4-morpholinobenzenediazonium zinc chloride</u>	67- 100	OP7B	+35	+40
<u>2,5-diethoxy-4-morpholinobenzenediazonium zinc chloride</u>	66	OP7B	+40	+45
<u>2,5-diethoxy-4-morpholinobenzenediazonium tetrafluoroborate</u>	100	OP7B	+30	+35
<u>2,5-diethoxy-4-(phenylsulphonyl)benzene- diazonium chloride</u>	67	OP7B	+40	+45
<u>2,5-dimethoxy-4-(4- methylphenylsulphonyl)- benzenediazonium zinc chloride</u>	79	OP7B	+40	+45
<u>4-dimethylamino-6-(2-di- methylaminoethoxy)- toluene-2-diazonium zinc chloride</u>	100	OP7B	+40	+45
<u>2-(2-hydroxyethoxy)-1-(pyrrolidin-1-yl)- benzene-4-diazonium zinc chloride</u>	100	OP7B	+45	+50
<u>3-(2-hydroxyethoxy)-4-pyrrolidin-1-yl- benzenediazonium zinc chloride</u>	100	OP7B	+40	+45
<u>N-formyl-2-(nitromethylene)1,3-perhydro- thiazine</u>	100	OP7B	+45	+50
<u>4-nitrosophenol</u>	100	OP7B	+35	+40
<u>2-(N,N-ethoxycarbonylphenylamino)-3- methoxy-4- (N-methyl-N-cyclohexylamino)- benzenediazonium zinc chloride</u>	63- 92	OP7B	+40	+45
<u>2-(N,N-ethoxycarbonylphenylamino)-3- methoxy-4-(N-methyl-N-cyclohexylamino)- benzenediazonium zinc chloride</u>	62	OP7B	+35	+40
<u>2-(N,N-methylaminoethylcarbonyl)-4-(3,4- dimethylphenylsulphonyl)benzene- diazonium hydrogen sulphate</u>	96	OP7B	+45	+50

2401(cont'd)Footnote of the last table:

- 1/ Azodicarbonamide formulations which fulfil the criteria of Appendix A.1, marginal 3104 (2) (d). The control and emergency temperatures shall be determined by the procedure in marginal 2400 (20).
- 47* (b) 3237 self-reactive liquid type E, temperature controlled */
- 48* (b) 3238 self-reactive solid type E, temperature controlled */
- 49* (b) 3239 self-reactive liquid type F, temperature controlled */
- 50* (b) 3240 self-reactive solid type F, temperature controlled */
- 2404 (2) Amend the subparagraph beginning with "If 2557 nitrocellulose ..." to read:
- "If 2557 nitrocellulose, with not more than 12.6% nitrogen, by dry mass, mixture with or without plasticizer, with or without pigment is packed ..." (rest unchanged).
- (3) Replace the existing paragraph (3) by the following:
- "(3) (a) Substances of item 26* shall be packed in fibre drums conforming to marginal 3525 with plastics lining or an equally effective inner coating.
A package shall not weigh more than 50 kg.
- (b) 3242 azodicarbonamide of 26* (b) may also be packed in:
- an inner packaging of a single plastics bag in a fibreboard box, of maximum contents 50 kg, or
 - inner packagings of plastics bottles, jars, bags or boxes, of maximum contents 5 kg each, within an outer packaging of a fibreboard box or a fibre drum of maximum contents 25 kg."
- 2405 Replace the existing text by the following:
- "(1) Substances of items 31* to 50* shall be packed using packing methods listed in Table 2 and designated OP1A to OP8A for liquids and OP1B to OP8B for solids. Substances shall be packed as indicated in marginal 2401 and as set out in detail in Table 2 (A) and 2 (B). A packing method corresponding to a smaller package size (i.e. with a

*/ No self-reactive substances are currently included under this item.

2405 lower OP number) may be used but a packing method corresponding to a
(cont'd) larger package size (i.e. with a higher OP number) shall not be used. Metal packagings meeting the test criteria of packing group I shall not be used. For combination packagings, cushioning materials shall not be readily combustible and shall not cause decomposition of the self-reactive substance if leakage occurs.

(2) Packages bearing a label conforming to model No. 01 in accordance with marginal 2412(4) shall comply with the provisions of marginal 2102 (4) and (6).

(3) For self-reactive substances or formulations of self-reactive substances not listed in marginal 2401, the following procedure shall be used to assign the appropriate packing method:

(a) self-reactive substances type B:

Substances shall be assigned packing method OP5A or OP5B provided that they satisfy the criteria of Appendix A.1, marginal 3104 (2) (b) in one of the packagings indicated. If the self-reactive substance can only satisfy these criteria in a smaller packaging than those listed for packing method OP5A or OP5B (i.e. one of the packagings listed for OP1A to OP4A or OP1B to OP4B), then the corresponding packing method with the lower OP number shall be assigned.

(b) self-reactive substances type C:

Substances shall be assigned packing method OP6A or OP6B provided that they satisfy the criteria of Appendix A.1, marginal 3104 (2) (c) in one of the packagings indicated. If the self-reactive substance can only satisfy these criteria in a smaller packaging than those listed for packing method OP6A or OP6B then the corresponding packing method with the lower OP number shall be assigned.

(c) self-reactive substances type D:

Packing method OP7A or OP7B shall be used.

(d) self-reactive substances type E:

Packing method OP8A or OP8B shall be used.

Table 2 (A): LIST OF PACKAGINGS FOR SELF-REACTIVE LIQUIDS AND MAXIMUM QUANTITY OR NET MASS PER PACKAGE
(see marginal 2405)

Type and Material	Packaging code (see marginal 3514)	OP1A 2/	OP2A 2/	OP3A 2/	Packing method 1/		OP6A 2/	OP7A	OP8A
Steel drum	1A1	*	*	*	*	*	*	60 litres	225 litres
Steel drum 3/	1A2	*	*	*	*	*	*	50 kg	200 kg
Aluminium drum	1B1	*	*	*	*	*	*	60 litres	225 litres
Fibre drum 3/	1G	0.5 kg	0.5/10 kg	5 kg	5/25 kg	25 kg	50 kg	50 kg	200 kg
Plastics drum	1H1	0.5 litres	0.5 litres	5 litres	5 litres	30 litres	60 litres	60 litres	225 litres
Plastics jerrican	3H1	0.5 litres	0.5 litres	5 litres	5 litres	30 litres	60 litres	60 litres	60 litres
Wooden box 3/	4C1	0.5 kg	0.5/10 kg	5 kg	5/25 kg	25 kg	50 kg	50 kg	100 kg
Plywood box 3/	4D	0.5 kg	0.5/10 kg	5kg	5/25 kg	25 kg	50 kg	50 kg	100 kg
Fibreboard box 3/	4G	0.5 kg	0.5/10 kg	5kg	5/25 kg	25 kg	50 kg	50 kg	100 kg
Plastics receptacle with outer steel drum	6HA1	*	*	*	*	*	*	60 litres	225 litres
Plastics receptacle with outer aluminium drum	6HB1	*	*	*	*	*	*	60 litres	225 litres
Plastics receptacle with outer fibre drum	6HG1	0.5 litres	0.5 litres	5 litres	5 litres	30 litres	60 litres	60 litres	225 litres
Plastics receptacle with outer fibreboard box	6HG2	0.5 litres	0.5 litres	5 litres	5 litres	30 litres	60 litres	60 litres	60 litres
Plastics receptacle with outer plastics drum	6HH1	0.5 litres	0.5 litres	5 litres	5 litres	30 litres	60 litres	60 litres	225 litres
Plastics receptacle with outer solid plastics box	6HH2	0.5 litres	0.5 litres	5 litres	5 litres	30 litres	60 litres	60 litres	60 litres

* : Prohibited for self-reactive liquid types B and C.

1/ : If two values are given, the first applies to the maximum net mass per inner packaging and the second to the maximum net mass of the complete package.

2/ : For combination packagings containing self-reactive liquid type B or C, only plastics bottles, plastics jars, glass bottles or glass ampoules shall be used as inner packagings. However, glass receptacles shall only be used as inner packagings for packing methods OP1A and OP2A.

3/ : Only allowed as part of a combination packaging. Inner packagings shall be suitable for liquids.

Table 2 (B):- LIST OF PACKAGINGS FOR SELF-REACTIVE SOLIDS AND MAXIMUM NET MASS PER PACKAGE
(see marginal 2405)

Type and material	Packaging code (see marginal 3514)	Packing method 1/ OP1B 2/ OP2B 2/3/ OP3B 2/ OP4B 2/ OP5B 2/ OP6B 2/ OP7B OP8B							
		OP1B 2/	OP2B 2/3/	OP3B 2/	OP4B 2/	OP5B 2/	OP6B 2/	OP7B	OP8B
Steel drum	1A2	*	*	*	*	*	*	50 kg	200 kg
Aluminium drum	1B2	*	*	*	*	*	*	50 kg	200 kg
Fibre drum	1G	0.5 kg	0.5/10 kg	5 kg	5/25 kg	25 kg	50 kg	50 kg	200 kg
Plastics drum	1H2	0.5 kg	0.5/10 kg	5 kg	5/25 kg	25 kg	50 kg	50 kg	200 kg
Wooden box 4/	4C1	0.5 kg	0.5/10 kg	5 kg	5/25 kg	25 kg	50 kg	50 kg	100 kg
Plywood box 4/	4D	0.5 kg	0.5/10 kg	5 kg	5/25 kg	25 kg	50 kg	50 kg	100 kg
Fibreboard box 4/	4G	0.5 kg	0.5/10 kg	5 kg	5/25 kg	25 kg	50 kg	50 kg	100 kg
Plastics receptacle with outer steel drum	6HA1	*	*	*	*	*	*	50 kg	200 kg
Plastics receptacle with outer aluminium drum	6HB1	*	*	*	*	*	*	50 kg	200 kg
Plastics receptacle with outer fibre drum	6HG1	0.5 kg	0.5 kg	5 kg	5 kg	25 kg	50 kg	50 kg	200 kg
Plastics receptacle with outer fibreboard box	6HG2	0.5 kg	0.5 kg	5 kg	5 kg	25 kg	50 kg	50 kg	75 kg
Plastics receptacle with outer plastics drum	6HH1	0.5 kg	0.5 kg	5 kg	5 kg	25 kg	50 kg	50 kg	200 kg
Plastics receptacle with outer solid plastics box	6HH2	0.5 kg	0.5 kg	5 kg	5 kg	25 kg	50 kg	50 kg	75 kg

* : Prohibited for self-reactive solid types B and C.

1/ : If two values are given, the first applies to the maximum net mass per inner packaging and the second to the maximum net mass of the complete package.

2/ : For combination packagings containing self-reactive solid type B or C, only non-metal packagings are allowed. However, glass receptacles shall only be used as inner packagings for packing methods OP1B and OP2B.

3/ : If fire retardant partitions are used, the maximum net mass of the complete package shall be 25 kg.

4/ : Only allowed as part of a combination packaging. Inner packaging shall be suitable for the substances to be carried.

2405 (e) self-reactive substances type F:
(cont'd)

Packing method OP8A or OP8B shall be used.

(4) Substances of 39° (b), 40° (b), 49° (b) or 50° (b) may be carried in IBCs under conditions laid down by the competent authority of the country of origin when, on the basis of testing, the competent authority is satisfied that such carriage may be safely conducted. The tests shall include those necessary:

- to prove that the self-reactive substance complies with the principles for classification given in Appendix A.1, marginal 3104 (2) (f);
- to prove the compatibility with all materials normally in contact with the substance during carriage;
- to determine, when applicable, the control and emergency temperatures associated with the carriage of the substance in the IBC concerned as derived from the SADT;
- to design, when applicable, emergency-relief devices; and
- to determine if any special requirements are necessary.

If the country of origin is not a Party to ADR, these conditions shall be recognized by the competent authority of the first ADR Country reached by the consignment.

(5) To prevent explosive rupture of metal IBCs or composite IBCs with full wall metal casing, the emergency-relief devices shall be designed to vent all the decomposition products and vapours evolved during a period of not less than one hour of fire engulfment (heat load 110 kW/m²) or self-accelerating decomposition.

(6) Receptacles or IBCs, containing substances of 31° (b), 33° (b), 35° (b), 37° (b), 39° (b), 41° (b), 43° (b), 45° (b), 47° (b) or 49° (b), which give off small quantities of gases, shall be vented, in accordance with marginal 3500 (8) or 3601 (6)."

2406	(2), (4), (5))	Insert after "which have a melting-point greater
and))	than 45°C" "or are pasty according to the criteria
))	of the penetrometer test (see Appendix A.3,
2407	(2) and (3))	marginal 3310), or are not liquid according to
		the ASTM D 4359-90 test method."

2411 (2) Amend paragraph (2) to read:

"(2) Substances of 21* to 26* and items 31* to 50* shall not be packed with other goods."

2412 Add the following text under the subheading "Marking":

"(1) Each package shall be clearly and durably marked with the identification number of the goods to be entered in the transport document, preceded by the letters "UN."

Renumber the existing paragraphs as (1) and (2) as (2) and (3).

Add new paragraphs (4) and (6) to read:

"(4) Packages containing self-reactive substances of items 31*, 32*, 41* and 42* shall in addition bear a label conforming to model No. 01 unless the competent authority has permitted this label to be dispensed with for the type of packaging tested because the results have proved that the self-reactive substance in such a packaging does not exhibit explosive behaviour (see marginal 2414 (4)).

"(6) Packages containing liquids in packagings the closures of which are not visible from the outside, packages containing vented packagings or vented packagings without outer packagings shall in addition bear on two opposite sides a label conforming to model No. 11.

Renumber existing paragraph (3) as paragraph (5).

2414 After "For the carriage of wastes" read "(see marginal 2000 (5))".

Add "or collective entry" after "N.O.S. entry" and "N.O.S. designation", number the existing text as paragraph (1) and add the following new paragraph numbers (2) to (8) to read:

"(2) When substances are carried under conditions fixed by the competent authority (see marginals 2400 (16) and 2405 (4)), the following statement shall be included in the transport document:

"Carriage in accordance with marginal 2414 (2)."

- 2414 (cont'd) (3) When a sample of a self-reactive substance is carried in accordance with marginals 2400 (18) and 2405 (6), the following statement shall be included in the transport document:

"Carriage in accordance with marginal 2414 (3)."

- (4) When, by permission of the competent authority, a label conforming to model No. 01 is not required, the following statement shall be included in the transport document.

"The danger label conforming to model No. 01 is not required."

- (5) When self-reactive substances type G [see Appendix A.1 marginal 3104 (2) (g)] are carried, the following statement may be given in the transport document:

"Not a self-reactive substance of Class 4.1."

- (6) For self-reactive substances requiring temperature control during carriage, the following statement shall be given in the transport document:

"Control temperature: °C Emergency temperature: °C"

- (7) For the solutions and mixtures containing only one component subject to the provisions of ADR, the word "solution" or "mixture" shall be added as part of the name in the transport document [see marginal 2002 (8) (a)].

- (8) When a solid is handed over for carriage in the molten state the description of the goods shall further specify "molten", unless the term already appears in the name."

- 2422 Change "41°" to "51°" throughout and in paragraph (3) change "31° to 37°" to "31° to 50°".

Insert a new amendment as follows:

"D. Transitional mesures

- 2425 Substances of class 4.1 may be carried until 30 June 1995 in accordance with the requirements for Class 4.1 applicable until 31 December 1994. The transport document shall, in such cases, bear the inscription "Carriage in accordance with the ADR in force before 1 January 1995".

2426-
2429

CLASS 4.2. SUBSTANCES LIABLE TO SPONTANEOUS COMBUSTION

- 2431 (English text only)

Items 12° (a), (b) and (c); 16° (c); 33° (a):

The names for identification numbers 1383, 3189, 2210, 3203 should be made singular.

13° (b) NOTE, Amend to read:

"1847 potassium sulphide, hydrated with not less than 30 % water of cristallization and 2949 sodium hydrosulphide with not less than 25 % water of cristallization, are substances of Class 8 [see marginal 2801, 45° (b) 1.]".

15° (a) NOTE: Amend to read:

"2869titanium trichloride mixture, non pyrophoric, is a substance of Class 8 [see marginal 2801, 11° (b) or (c)]".

Items 7° (b) and (c); 8° (b) and (c); 9° (b) and (c); 10° (b) and (c); 18° (b) and (c); 19° (b) and (c); 20° (b) and (c); 21° (b) and (c)

In the names for identification numbers 3128, 3184, 3126, 3185, 3191, 3187, 3188 and 3192, transfer the word "organic" or "inorganic" at the end, just before the word "n.o.s."

- 2442 (1) Under the subheading "Marking", add the following text:

"(1) Each package shall be clearly and durably marked with the identification number of the goods to be entered in the transport document, preceded by the letters "UN" "

Renumber the existing paragraphs as (2) to (7).

2444 After "For the carriage of wastes" read "(see marginal 2000 (5))."

Insert the following new paragraphs:

"For the solutions and mixtures containing only one component subject to the provisions of ADR, the word "solution" or "mixture" shall be added as part of the name in the transport document (see marginal 2002 (8) (a)).

When a solid is handed over for carriage in the molten state the description of the goods shall further specify "molten", unless the term already appears in the name."

CLASS 4.3 SUBSTANCES WHICH, IN CONTACT WITH WATER,
EMIT FLAMMABLE GASES

2471 (English text only)

Items 3° (a), (b) and (c); 11° (a) and (b); 14° (a), (b) and (c), 20° (c),

The name for identification numbers 3207, 1389, 1391, 1392, 1421, 1393, 3209, 2968 should be made singular.

1° (a): The name for identification number 2988 should read: "2988 chlorosilanes, water-reactive, flammable, corrosive, n.o.s."

13° (a), (b) and (c): The name for identification number 3208 should read: "3208 metallic substance, water-reactive, n.o.s."

The name for identification number 3170 should read: "3170 aluminium processing by-products."

18°(a) NOTE 2: Amend to read:

"3048 aluminium phosphide pesticides, with additives inhibiting the emission of flammable gases are substances of Class 6.1 [see marginal 2601, 43°(a)]".

2476 Insert the following new note:

"NOTE: Substances of 15° (c) may also be packed in packagings, which need only meet the requirements of marginal 3500 (1), (2) and (5) to (7), and they may in addition be packed in IBCs of type 13H1."

2482 (1) Under the subheading "Marking", add the following text:

"(1) Each package shall be clearly and durably marked with the identification number of the goods to be entered in the transport document, preceded by the letters "UN"

Renumber the existing paragraphs as (2) to (9).

2484 After "For the carriage of wastes"...read "(see marginal 2000 (5))"

Insert the following new paragraphs:

"For the solutions and mixtures containing only one component subject to the provisions of ADR, the word "solution" or "mixture" shall be added as part of the name in the transport document (see marginal 2002 (8) (a)).

When a solid is handed over for carriage in the molten state the description of the goods shall further specify "~~molten~~", unless the term already appears in the name."

CLASS 5.1 OXIDIZING SUBSTANCES

2501 (English text only)

Items 1° (a) and (b), 11° (b), 13° (b), 15° (b) and (c), 16° (b) and (c), 17° (b), 18° (c), 22° (b) and (c), 23° (b) and (c), 24° (b);

The names for identification numbers 2014, 2015, 1458, 1459, 3210, 3211, 2208, 2880, 1748, 3213, 3214, 3216, 3218, 3219, 1487 should be made singular.

1° (b) NOTE, In the second sentence of the NOTE, replace:

"...and an organic liquid compatible with peroxyacetic acid and with a boiling point not less than 150°C shall be used for desensitization" by "and a liquid compatible with peroxyacetic acid shall be used for desensitization".

2501 3° (a) NOTE 2: Amend to read:
(cont'd)

"1802 perchloric acid with not more than 50% acid, by mass, in aqueous solution, is a substance of Class 8 [see ,marginal 2801, 4°(b)]".

14°(b) NOTE 1, amend to read:

"1908 chlorite solution is a substance of Class 8 [see marginal 2801, 61°(b) or (c)]."

15°(b) and (c) NOTE 2, amend to read:

"1791 hypochlorite solution is a substance of Class 3 [see marginal 2801, 61°(b) or (c)]".

22°(b) and (c) NOTE 1, amend to read:

"1625 mercuric nitrate, 1627 mercurous nitrate and 2727 thallium nitrate are substances of Class 6.1 [see marginal 2601, 52°(b) and 68°(b)]. -2976 thorium nitrate, solid ..." (remainder unchanged).

31°(b) and (c) NOTE 2, amend to read:

"1755 chromic acide solution is a substance of Class 8 [see marginal 2801, 17°(b) or (c)]".

2507 (2) (b) Add after:

"or 3535 for plastics film" "or 3536 for water-resistant paper," (the rest unchanged.)

2512 (1) Under the subheading "Marking", add the following text:

"(1) Each package shall be clearly and durably marked with the identification number of the goods to be entered in the transport document, preceded by the letters "UN""

Renumber the existing paragraphs as (2) to (5).

2514 After "For the carriage of wastes..." read "(see marginal 2000 (5))."

Insert the following new paragraphs:

"For the solutions and mixtures containing only one component subject to the provisions of ADR, the word "solution" or "mixture" shall be added as part of the name in the transport document (see marginal 2002 (8) (a))."

When a solid is handed over for carriage in the molten state the description of the goods shall further specify "molten", unless the term already appears in the name."

CLASS 5.2 ORGANIC PEROXIDES

2550 (7) Add to paragraph (7) the following text:

"Mixtures of these formulations may be classified as the same type of organic peroxide as that of the most dangerous component and be transported under the conditions of transport given for this type. However, as two stable components can form a thermally less stable mixture, the self-accelerating decomposition temperature of the mixture should be determined and, if necessary, the control and emergency temperature derived from the SADT in accordance with marginal 2550 (17)."

Amend the beginning of paragraph (8) to read:

"(8) Classification of organic peroxides, formulations or mixtures of organic peroxides not listed in marginal 2551 ..." (the rest unchanged)

2553 (4) Add a new paragraph (4), to read:

"(4) Receptacles or IBCs, containing substances of 1° (b), 3° (b), 5° (b), 7° (h), 9° (b), 11° (b), 13° (b), 15° (b), 17° (b) or 19° (b), which give off small quantities of gases, shall be vented, in accordance with marginal 3500 (8) or 3601 (6)."

2559 (1) Under the subheading "Marking", Add the following text:

"(1) Each package shall be clearly and durably marked with the identification number of the goods to be entered in the transport document preceded by the letters "UN"

Add the subheading "Danger labels" above the existing text and renumber the paragraphs as (2) to (6).

2561 (1), third paragraph, after "For the carriage of wastes..." read (see marginal 2000 (5))."

CLASSES 6.1 AND 6.2:

Replace marginals 2600 to 2699 by the following:

CLASS 6.1 - TOXIC SUBSTANCES*1. List of substances**

2600 (1) Among the substances and articles covered by the title of Class 6.1, those which are listed in marginal 2601 or are covered by a collective heading of that marginal are subject to the conditions set out in marginals 2600(2) to 2622 and to the provisions of this Annex and of Annex B. They are then considered as substances and articles of ADR.

NOTE: For the quantities of substances of marginal 2601 which are not subject to the provisions for this class either in this Annex or in Annex B, see marginal 2601a.

(2) The title of Class 6.1 covers the toxic substances of which it is known by experience or regarding which it is presumed from experiments on animals that in relatively small quantity they are able by a single action or by action of short duration to cause damage to human health, or death, by inhalation, by cutaneous absorption or by ingestion.

Substances of Class 6.1 are subdivided as follows:

- A. Substances which are highly toxic on inhalation with a flash-point below 23 °C which are not substances of Class 3;
- B. Organic substances which have a flash-point of not less than 23 °C or non-flammable organic substances;
- C. Organometallic compounds or carbonyls;
- D. Inorganic substances which may release toxic gases on contact with water (or atmospheric humidity), aqueous solutions or acids and other toxic water-reactive */ substances;
- E. Other inorganic substances and metallic salts of organic substances;
- F. Substances and preparations used as pesticides;

*/ The term "water reactive" denotes a substance which, in contact with water, emits flammable gases.

2600 (2) (cont'd)

(cont'd) G. Substances intended for laboratories and experiments and for the manufacture of pharmaceutical products, if not listed in other items of this Class;

H. Empty packagings.

(3) Substances and articles of Class 6.1, other than the substances of 1° to 5°, which are classified under the various items of marginal 2601, shall be assigned to one of the following groups designated by the letters (a), (b) or (c), according to their degree of toxicity:

- (a): highly toxic substances
- (b): toxic substances
- (c): slightly toxic substances

Substances, mixtures and solutions, including pesticides of 71° to 87°, not expressly mentioned shall be classified under the appropriate item and letter according to the following criteria:

1. To assess the degree of toxicity, account shall be taken of human experience of instances of accidental poisoning, as well as special properties possessed by any individual substances: liquid state, high volatility, any special likelihood of cutaneous absorption, and special biological effects.
2. In the absence of observations on humans, the degree of toxicity shall be assessed using the available data from animal experiments in accordance with the table below:

	Subdivision into groups within an item	Oral toxicity LD ₅₀ (mg/kg)	Dermal toxicity LD ₅₀ (mg/kg)	Toxicity on inhalation LC ₅₀ dusts and mists (mg/l)
Highly toxic	(a)	≤5	≤40	≤0.5
Toxic	(b)	>5-50	>40-200	>0.5-2
Slightly toxic	(c) 1/	solids: >50-200 liquids: >50-500	>200-1 000	> 2-10

1/ Tear gases shall be included in group (b) even if data concerning their toxicity correspond to group (c) criteria.

- 2.1 Where a substance exhibits different degrees of toxicity for two or more kinds of exposure, it shall be classified under the highest such degree of toxicity.

2600 (3) (cont'd)

- 2.2 Substances meeting the criteria of Class 8 and with an inhalation toxicity of dusts and mists (LC_{50}) leading to Packing Group I shall only be accepted for an allocation to class 6.1 if the toxicity through oral ingestion or dermal contact is at least in the range of Group (a) or (b). Otherwise an assignment to Class 8 shall be made if appropriate (see footnote 1/, marginal 2800).

 LD_{50} value for acute oral toxicity

- 2.3 That dose of the substance administered which is most likely to cause death within 14 days in one half of both male and female young adult albino rats. The number of animals tested shall be sufficient to give a statistically significant result and shall be in conformity with good pharmacological practices. The result is expressed in mg per kg body mass.

 LD_{50} value for acute dermal toxicity

- 2.4 That dose of the substance which, administered by continuous contact for 24 hours with the bare skin of albino rabbits, is most likely to cause death within 14 days in one half of the animals tested. The number of animals tested shall be sufficient to give a statistically significant result and shall be in conformity with good pharmacological practices. The result is expressed in mg per kg body mass.

 LC_{50} value for acute toxicity on inhalation

- 2.5 That concentration of vapour, mist or dust which, administered by continuous inhalation for one hour to both male and female young adult albino rats, is most likely to cause death within 14 days in one half of the animals tested. If the substance is administered to the animals as dust or mist, more than 90% of the particles available for inhalation in the test shall have a diameter of 10 μm or less, provided that it is reasonably foreseeable that such concentrations could be encountered by humans during carriage. The result is expressed in mg per litre of air for dusts and mists and in ml per m^3 of air (ppm) for vapours.
- 2.6 These criteria for inhalation toxicity of dusts and mists are based on LC_{50} data relating to 1-hour exposure, and where such information is available it shall be used. However, where only LC_{50} data relating to 4-hour exposure are available, such figures can be multiplied by four and the product substituted in the above criteria, i.e. LC_{50} value multiplied by four (4 hour) is considered the equivalent of LC_{50} (1 hour).

2600 (3) (cont'd)
(cont'd)

Inhalation toxicity of vapours

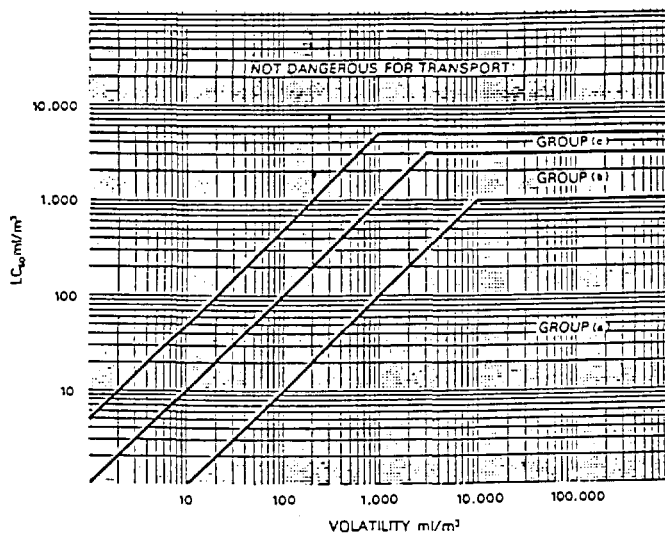
3. Liquids giving off toxic vapours shall be classified into the following groups where "V" is the saturated vapour concentration (in ml/m³ of air) (volatility) at 20 °C and standard atmospheric pressure:

	Subdivision into groups within an item	
Highly toxic	(a)	Where $V \geq 10 LC_{50}$ and $LC_{50} \leq 1\,000$ ml/m ³
Toxic	(b)	Where $V \geq LC_{50}$ and $LC_{50} \leq 3\,000$ ml/m ³ and the criteria for (a) are not met
Slightly toxic	(c)	Where $V \geq 1/5 LC_{50}$ and $LC_{50} \leq 5\,000$ ml/m ³ and the criteria for (a) and (b) are not met

These criteria for inhalation toxicity of vapours are based on LC_{50} data relating to 1-hour exposure, and where such information is available, it shall be used.

However, where only LC_{50} data relating to 4-hour exposure to the vapours are available, such figures can be multiplied by two and the product substituted in the above criteria, i.e. LC_{50} (4 hour) x 2 is considered the equivalent of LC_{50} (1 hour).

INHALATION TOXICITY:
PACKING GROUP BORDERLINES



- 2600 (3)
(cont'd) In this figure, the criteria are expressed in graphical form, as an aid to easy classification. However, due to approximations inherent in the use of graphs, substances falling on or near group borderlines shall be checked using numerical criteria.

Mixtures of liquids

4. Mixtures of liquids which are toxic on inhalation shall be assigned to danger categories according to the following criteria:
- 4.1 If LC_{50} is known for each of the toxic substances constituting the mixture, the group may be determined as follows:
 - (a) calculation of the LC_{50} of the mixture:

$$LC_{50} (\text{mixture}) = \frac{1}{\sum_{i=1}^n \frac{f_i}{LC_{50i}}}$$

Where f_i = molar fraction of constituent i of the mixture.

LC_{50i} = average lethal concentration of constituent i in ml/m^3 .

- (b) calculation of volatility of each mixture constituent:

$$V_i = P_i \times \frac{10^6}{101.3} \text{ ml/m}^3$$

where P_i = partial pressure of constituent i in kPa at 20 °C and at standard atmospheric pressure.

- (c) calculation of the ratio of volatility to LC_{50} :

$$R = \sum_{i=1}^n \frac{V_i}{LC_{50i}}$$

- 2600 (3)
(cont'd) (d) the values calculated for LC_{50} (mixture) and R are then used to determine the group of the mixture:

Group (a) $R \geq 10$ and LC_{50} (mixture) $\leq 1,000$ ml/m³

Group (b) $R \geq 1$ and LC_{50} (mixture) $\leq 3,000$ ml/m³, if the mixture does not meet the criteria for (a)

Group (c) $R \geq 1/5$ and LC_{50} (mixture) $\leq 5,000$ ml/m³, if the mixture does not meet the criteria of group (a) or group (b).

- 4.2 In the absence of LC_{50} data on the toxic constituent substances, the mixture may be assigned to a group based on the following simplified threshold toxicity tests. When these threshold tests are used, the most restrictive group shall be determined and used for carrying the mixture.
- 4.3 A mixture is assigned to group (a) only if it meets both of the following criteria:
- (i) A sample of the liquid mixture is vaporized and diluted with air to create a test atmosphere of 1,000 ml/m³ vaporized mixture in air. Ten albino rats (5 male and 5 female) are exposed to the test atmosphere for 1 hour and observed for 14 days. If five or more of the animals die within the 14-day observation period, the mixture is presumed to have an LC_{50} equal to or less than 1,000 ml/m³.
 - (ii) A sample of vapour in equilibrium with the liquid mixture is diluted with 9 equal volumes of air to form a test atmosphere. Ten albino rats (5 male and 5 female) are exposed to the test atmosphere for 1 hour and observed for 14 days. If five or more of the animals die within the 14-day observation period, the mixture is presumed to have a volatility equal to or greater than 10 times the mixture LC_{50} .
- 4.4 A mixture is assigned to group (b) only if it meets both of the following criteria, and does not meet the criteria for group (a):
- (i) A sample of the liquid mixture is vaporized and diluted with air to create a test atmosphere of 3,000 ml/m³ vaporized mixture in air. Ten albino rats (5 male and 5 female) are exposed to the test atmosphere for 1 hour and observed for 14 days. If five or more of the animals die

2600 (3)
(cont'd) within the 14-day observation period, the mixture is presumed to have an LC_{50} equal to or less than 3,000 ml/m³.

- (ii) A sample of the vapour in equilibrium with the liquid mixture is used to form a test atmosphere. Ten albino rats (5 male and 5 female) are exposed to the test atmosphere for 1 hour and observed for 14 days. If five or more of the animals die within the 14-day observation period, the mixture is presumed to have a volatility equal to or greater than the mixture LC_{50} .

4.5 A mixture is assigned to group (c) only if it meets both of the following criteria, and does not meet the criteria for groups (a) or (b):

- (i) A sample of the liquid mixture is vaporized and diluted with air to create a test atmosphere of 5,000 ml/m³ vaporized mixture in air. Ten albino rats (5 male and 5 female) are exposed to the test atmosphere for 1 hour and observed for 14 days. If five or more of the animals die within the 14-day observation period, the mixture is presumed to have an LC_{50} equal to or less than 5,000 ml/m³.
- (ii) The vapour concentration (volatility) of the liquid mixture is measured and if the vapour concentration is equal to or greater than 1,000 ml/m³, the mixture is presumed to have a volatility equal to or greater than 1/5 the mixture LC_{50} .

(4) When, as a result of additions, substances of Class 6.1 pass into other danger categories than those to which the substances mentioned by name in marginal 2601 belong, these mixtures or solutions shall be listed under the items and letters to which they belong, based on their actual degree of danger.

NOTE: For classification of solutions and mixtures (such as preparations and wastes), see also marginal 2002(8).

(5) On the basis of the criteria of paragraph 2600(3), it may also be determined whether the nature of a solution or mixture mentioned by name or containing a substance mentioned by name is such that the solution or mixture is not subject to the requirements for this Class.

(6) Flammable liquids which are toxic on inhalation, having a flash-point below 23 °C, except substances of 1° to 10°, are substances of Class 3 (see marginal 2301, 11° to 19°).

2600 (cont'd) (7) Flammable liquids slightly toxic, with the exception of substances and preparations used as pesticides, having a flash-point between 23 °C to 61 °C, inclusive, are substances of Class 3 (see marginal 2301).

(8) Self-heating substances slightly toxic are substances of Class 4.2 (see marginal 2431).

(9) Water-reactive substances slightly toxic are substances of Class 4.3 (see marginal 2471).

(10) Oxidizing substances slightly toxic are substances of Class 5.1 (see marginal 2501).

(11) Substances slightly toxic and slightly corrosive are substances of Class 8 (see marginal 2801).

(12) Chemically unstable substances of Class 6.1 shall not be accepted for carriage unless the necessary steps have been taken to prevent their dangerous decomposition or polymerization during carriage. To this end, it shall in particular be ensured that receptacles do not contain any substance(s) likely to cause about such a reaction.

(13) Substances and mixtures of substances having a melting point above 45 °C are considered as solids within the meaning of the packing requirements of marginals 2606(2), 2607(4) and 2608(3).

(14) The flash-point referred to below shall be determined in the manner described in Appendix A.3.

2601 A. Highly toxic substances having a flash-point below 23 °C which are not substances of Class 3

1° Hydrogen cyanide, stabilized:

1051 hydrogen cyanide, stabilized, containing not more than 3% water,

1614 hydrogen cyanide, stabilized, containing not more than 3% water and absorbed in a porous inert material.

NOTE 1: Special conditions of packing are applicable to this substance [see marginal 2603(1)].

NOTE 2: Anhydrous hydrogen cyanide not satisfying these conditions is not to be accepted for carriage.

NOTE 3: Hydrogen cyanide (Hydrocyanic acid) containing less than 3% water is stable, if the pH-value is 2.5 ± 0.5 and the liquid is clear and colourless.

2601 2° Hydrogen cyanide solutions:
(cont'd)

1613 hydrogen cyanide, aqueous solution (hydrocyanic acid),
with not more than 20% hydrogen cyanide.

3294 hydrogen cyanide, solution in alcohol, with not more than
45% hydrogen cyanide.

NOTE 1: Special conditions of packing are applicable to these
substances [see marginal 2603(2)].

NOTE 2: Solutions of hydrogen cyanide which do not conform to these
conditions are not to be accepted for carriage.

3° Metal carbonyls:

1259 nickel carbonyl, 1994 iron pentacarbonyl.

NOTE 1: Special conditions of packing are applicable to these
substances (see marginal 2604).

NOTE 2: Other metal carbonyls having a flash-point below 23 °C are
not to be accepted for carriage.

4° 1185 ethyleneimine, inhibited.

NOTE: Special conditions of packing are applicable to this
substance [see marginal 2605(1)].

5° 2480 methyl isocyanate.

NOTE: Special conditions of packing are applicable to this
substance [see marginal 2605(2)].

6° Other isocyanates having a flash-point below 23 °C:

(a) 2482 n-propyl isocyanate, 2484 tert-butyl isocyanate,
2485 n-butyl isocyanate.

7° Nitrogenous substances:

(a) 1. 1163 dimethylhydrazine, unsymmetrical, 1244
methylhydrazine;
2. 2334 allylamine, 2382 dimethylhydrazine, symmetrical.

8° Oxygenated substances:

(a) 1092 acrolein, inhibited, 1098 allyl alcohol,
1143 crotonaldehyde, stabilized,
2606 methyl orthosilicate.

2601 9° Halogenated substances:
(cont'd)

(a) 1239 methyl chloromethyl ether.

10° Corrosive halogenated substances:

(a) 1182 ethyl chloroformate, 1238 methyl chloroformate, 2407 isopropyl chloroformate, 2438 trimethylacetyl chloride.

B. Organic substances which have a flash-point of 23 °C or over or non-flammable organic substances

NOTE: Organic substances and preparations used as pesticides are substances of 71° to 78° and 81° to 87°.

11° Nitrogenous substances having a flash-point between 23 °C and 61 °C inclusive:

(a) 3275 nitriles, toxic, flammable, n.o.s.;

(b) 2668 chloroacetonitrile, 3073 vinylpyridines, inhibited, 3275 nitriles, toxic, flammable, n.o.s.

12° Nitrogenous substances having a flash-point above 61 °C:

(a) 1541 acetone cyanohydrin, stabilized, 3276 nitriles, toxic, n.o.s.;

(b) 1547 aniline, 1577 chlorodinitrobenzenes, 1578 chloronitrobenzenes, 1590 dichloroanilines, 1596 dinitroanilines, 1597 dinitrobenzenes, 1598 dinitro-o-cresol, 1599 dinitrophenol solution, 1650 beta-naphthylamine, 1652 naphthylurea, 1661 nitroanilines (o-,m-p-), 1662 nitrobenzene, 1664 nitrotoluenes (o-,m-p-), 1665 nitroxylenes, (o-,m-p-) 1708 toluidines, 1711 xylydines, 1843 ammonium dinitro-o-cresolate, 1885 benzidine, 2018 chloroanilines, solid, 2019 chloroanilines, liquid, 2038 dinitrotoluenes, 2224 benzonitrile, 2253 N,N-dimethylaniline, 2306 nitrobenzotrifluorides, 2307 3-nitro-4-chlorobenzotrifluoride, 2522 dimethylaminoethyl methacrylate, 2572 phenylhydrazine, 2647 malononitrile, 2671 aminopyridines (o-,m-p-), 2673 2-amino-4-chlorophenol, 2690 N,n-butylimidazole, 2738 N-butylaniline, 2754 N-ethyltoluidines, 2822 2-chloropyridine, 3276 nitriles, toxic, n.o.s.;

- 2601 (cont'd) (c) 1548 aniline hydrochloride, 1599 dinitrophenol solution, 1663 nitrophenols (o-,m-,p-), 1673 phenylenediamines (o-,m-,p-), 1709 2,4-toluylenediamine, 2074 acrylamide, 2077 alpha-naphthylamine, 2205 adiponitrile, 2272 N-ethylaniline, 2273 2-ethylaniline, 2274 N-ethyl-N-benzylaniline, 2294 N-methylaniline, 2300 2-methyl-5-ethylpyridine, 2311 phenetidines, 2431 anisidines, 2432 N,N-diethylaniline, 2446 nitroresols, 2470 phenylacetone nitrile, liquid, 2512 aminophenols(o-,m-,p-), 2651 4,4'-diaminodiphenylmethane, 2656 quinoline, 2660 nitrotoluidines (mono), 2666 ethyl cyanoacetate, 2713 acridine, 2730 nitroanisole, 2732 nitrobromobenzene, 2753 N-ethylbenzyltoluidines, 2873 dibutylaminoethanol, 2941 fluoroanilines, 2942 2-trifluoromethylaniline, 2946 2-amino-5-diethylaminopentane, 3276 nitriles, toxic, n.o.s.

NOTE: Isocyanates having a flash-point above 61 °C are substances of 19°.

- 13° Oxygenated substances having a flash-point between 23 °C and 61 °C inclusive:
- (a) 2521 diketene, inhibited.
- 14° Oxygenated substances having a flash-point above 61 °C:
- (b) 1594 diethyl sulphate, 1671 phenol, solid, 2261 xylenols, 2587 benzoquinone, 2669 chlororesols, 2821 phenol solution, 2839 aldol;
- (c) 2369 ethylene glycol monobutyl ether, 2525 ethyl oxalate, 2609 triallyl borate, 2662 hydroquinone, 2716 1,4-butyne diol, 2821 phenol solution, 2874 furfuryl alcohol, 2876 resorcinol, 2937 alpha-methylbenzyl alcohol, 2938 methyl benzoate.
- 15° Halogenated hydrocarbons:
- (a) 1605 ethylene dibromide, 1647 methyl bromide and ethylene dibromide mixture, liquid, 2646 hexachlorocyclopentadiene;

NOTE: Mixtures of ethylene dibromide (sym-dibromoethane) with methyl bromide having, at 50 °C, a vapour pressure greater than 300 kPa (3 bar) are substances of Class 2 [see marginal 2201, 4° (bt)].

- (b) 1669 pentachloroethane, 1701 xylol bromide, 1702 1,1,2,2-tetrachloroethane, 1846 carbon tetrachloride, 1886 benzylidene chloride, 1891 ethyl bromide, 2322 trichlorobutene, 2644 methyl iodide, 2653 benzyl iodide;

- 2601 (c) 1591 o-dichlorobenzene, 1593 dichloromethane (methylene chloride), 1710 trichloroethylene, 1887 bromochloromethane, 1888 chloroform, 1897 tetrachloroethylene, 2279 hexachlorobutadiene, 2321 trichlorobenzenes, liquid, 2504 tetrabromoethane, 2515 bromoform, 2516 carbon tetrabromide, 2664 dibromoethane, 2688 1-bromo-3-chloropropane, 2729 hexachlorobenzene, 2831 1,1,1-trichloroethane, 2872 dibromochloropropanes.

NOTE: Mixtures of methyl chloride with methylene chloride (dichloromethane) having, at 50° C, a vapour pressure greater than 300 kPa (3 bar) are substances of Class 2 [see marginal 2201, 4° (bt)].

- 16° Other halogenated substances having a flash-point between 23 °C and 61 °C inclusive:

- (a) 1135 ethylene chlorohydrin, 2558 epibromohydrin;
 (b) 1181 ethyl chloroacetate, 1569 bromoacetone, 1603 ethyl bromoacetate, 1916 2,2'-dichlorodiethyl ether, 2023 epichlorohydrin, 2295 methyl chloroacetate, 2589 vinyl chloroacetate, 2611 propylene chlorohydrin.

- 17° Other halogenated substances having a flash-point above 61 °C:

- (a) 1580 chloropicrin, 1670 perchloromethyl mercaptan, 1672 phenylcarbylamine chloride, 1694 bromobenzyl cyanides, 2232 chloroacetaldehyde, 2628 potassium fluoroacetate, 2629 sodium fluoroacetate, 2642 fluoroacetic acid, 1583 chloropicrin mixture, n.o.s., 1610 halogenated irritating liquid, n.o.s.;

NOTE: Mixtures of methyl bromide or methyl chloride with chloropicrin, having, at 50 °C, a vapour pressure greater than 300 kPa (3 bar) are substances of Class 2 [see marginal 2201, 4° (at) or 4° (bt)].

- (b) 1695 chloroacetone, stabilized, 1697 chloroacetophenone, 2075 chloral, anhydrous, inhibited, 2490 dichloroisopropyl ether, 2552 hexafluoroacetone hydrate, 2567 sodium pentachlorophenate, 2643 methyl bromoacetate, 2645 phenacyl bromide, 2648 1,2-dibromobutan-3-one, 2649 1,3-dichloroacetone, 2650 1,1-dichloro-1-nitroethane, 2750 1,3-dichloropropanol-2, 2948 3-trifluoromethylaniline, 3155 pentachlorophenol, 1583 chloropicrin mixture, n.o.s., 1610 halogenated irritating liquid, n.o.s.;

- 2601 (c) 1579 4-chloro-o-toluidine hydrochloride,
 (cont'd) 2020 chlorophenols, solid, 2021 chlorophenols, liquid,
2233 chloroanisidines, 2235 chlorobenzyl chlorides,
2237 chloronitroanilines, 2239 chlorotoluidines,
2299 methyl dichloroacetate, 2433 chloronitrotoluenes,
2533 methyl trichloroacetate, 2659 sodium chloroacetate,
2661 hexachloroacetone, 2689 glycerol
alpha-monochlorohydrin, 2747 tert-butylcyclohexyl
chloroformate, 2849 3-chloropropoanol-1, 2875
hexachlorophene, 3241 2-bromo-2-nitropropane-1,3-diol,
1583 chloropicrin mixture, n.o.s.,
1610 halogenated irritating liquid, n.o.s.

NOTE: Chloroformates having predominantly corrosive properties are substances of Class 8 (see marginal 2801, 64°).

- 18° Isocyanates having a flash-point between 23 °C and 61 °C inclusive:

- (b) 2285 isocyanatobenzotrifluorides, 2487 phenyl isocyanate,
2488 cyclohexyl isocyanate,
3080 isocyanates, toxic, flammable, n.o.s. or
3080 isocyanate solution, toxic, flammable, n.o.s.

NOTE: Solutions of these isocyanates having a flash-point below 23° C are substances of Class 3 [see marginal 2301, 14° (b)].

- 19° Isocyanates having a flash-point above 61 °C:

- (b) 2078 toluene diisocyanate and isomer mixtures,
2236 3-chloro-4-methylphenyl isocyanate,
2250 dichlorophenyl isocyanates, 2281 hexamethylene
diisocyanate,
2206 isocyanates, toxic, n.o.s. or 2206 isocyanate
solution, toxic, n.o.s.;

NOTE 1: Solutions of these isocyanates having a flash-point below 23 °C are substances of Class 3 (see marginal 2301, 14°).

NOTE 2: Solutions of these isocyanates having a flash-point between 23 °C and 61 °C inclusive are substances of 18° (b).

- (c) 2290 isophoronediiisocyanate, 2328 trimethylhexamethylene
diiisocyanate and isomer mixtures,
2489 diphenylmethane-4,4'-diiisocyanate,
2206 isocyanates, toxic, n.o.s., or 2206 isocyanate
solution, toxic, n.o.s.

- 2601 20° Substances containing sulphur and having a flash-point between
(cont'd) 23 °C and 61 °C inclusive:
- (a) 2337 phenyl mercaptan;
 - (b) 1545 allyl isothiocyanate, inhibited, 2477 methyl isothiocyanate, 3023 tert-octyl mercaptan, 3071 mercaptans, liquid, toxic, flammable, n.o.s., or 3071 mercaptan mixture, liquid, toxic, flammable, n.o.s.
- 21° Substances containing sulphur and having a flash-point above 61 °C:
- (b) 1651 naphthylthiourea, 2474 thiophosgene, 2936 thiolactic acid, 2966 thioglycol;
 - (c) 2785 4-thiapentanal.
- 22° Substances containing phosphorus and having a flash-point between 23 °C and 61 °C inclusive:
- (a) 3279 organophosphorus compound, toxic, flammable, n.o.s.;
 - (b) 3279 organophosphorus compound, toxic, flammable, n.o.s.
- 23° Substances containing phosphorus and having a flash-point above 61 °C:
- (a) 3278 organophosphorus compound, toxic, n.o.s.;
 - (b) 1611 hexaethyl tetraphosphate, 1704 tetraethyl dithiopyrophosphate, 2501 tris-(1-aziridinyl) phosphine oxide, solution, 2574 tricresyl phosphate with more than 3% ortho isomer, 3278 organophosphorus compound, toxic, n.o.s.;
 - (c) 2501 tris-(1-aziridinyl) phosphine oxide, solution, 3278 organophosphorus compound, toxic, n.o.s.
- 24° Toxic organic substances carried in the molten state:
- (b) 1. 1600 dinitrotoluenes, molten, 2312 phenol, molten;
2. 3250 chloroacetic acid, molten.
- 25° Organic substances and articles and solutions and mixtures of organic substances (such as preparations and wastes) which cannot be classified under another collective heading:
- (a) 1601 disinfectant, solid, toxic, n.o.s., 1602 dye, liquid, toxic, n.o.s. or 1602 dye intermediate, liquid, toxic, n.o.s.,

2601 (cont'd) 1693 tear gas substance, liquid or solid, n.o.s., 3142 disinfectant, liquid, toxic, n.o.s., 3143 dye, solid, toxic, n.o.s. or 3143 dye intermediate, solid, toxic, n.o.s., 2810 toxic liquid, organic, n.o.s., 2811 toxic solid, organic, n.o.s.;

NOTE: 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD) in concentrations considered highly toxic according to the criteria in marginal 2600(3) is not to be accepted for carriage.

(b) 2016 ammunition, toxic, non-explosive without burster or expelling charge, non-fused, 1601 disinfectant, solid, toxic, n.o.s., 1602 dye, liquid, toxic, n.o.s. or 1602 dye intermediate, liquid, toxic, n.o.s., 1693 tear gas substance, liquid or solid, n.o.s., 3142 disinfectant, liquid, toxic, n.o.s., 3143 dye, solid, toxic, n.o.s., or 3143 dye intermediate, solid, toxic, n.o.s., 2810 toxic liquid, organic, n.o.s., 2811 toxic solid, organic, n.o.s.;

(c) 2518 1,5,9-cyclododecatriene, 2667 butyltoluenes, 1601 disinfectant, solid, toxic, n.o.s., 1602 dye, liquid, toxic, n.o.s., or 1602 dye intermediate, liquid, toxic, n.o.s., 3142 disinfectant, liquid, toxic, n.o.s., 3143 dye, solid, toxic, n.o.s. or 3143 dye intermediate, solid, toxic, n.o.s., 2810 toxic liquid, organic, n.o.s., 2811 toxic solid, organic, n.o.s.;

26° Flammable toxic organic substances, articles containing flammable toxic organic substances and solutions and mixtures of flammable toxic organic substances (such as preparations and wastes), which cannot be classified under another collective heading:

- (a) 1. 2929 toxic liquid, flammable, organic, n.o.s.;
2. 2930 toxic solid, flammable, organic, n.o.s.;

NOTE: Dichloromethyl ether, symmetrical, (identification No. 2249) is not to be accepted for carriage.

- (b) 1. 2929 toxic liquid, flammable, organic, n.o.s.;
2. 1700 tear gas candles, 2930 toxic solid, flammable, organic, n.o.s.;

2601

(cont'd) 27° Corrosive toxic organic substances, articles containing such substances and solutions and mixtures of corrosive toxic organic substances (such as preparations and wastes):

- (a) 1595 dimethyl sulphate, 1752 chloroacetyl chloride, 1889 cyanogen bromide, 3246 methanesulphonyl chloride, 2927 toxic liquid, corrosive, organic, n.o.s., 2928 toxic solid, corrosive, organic, n.o.s.;
- (b) 1737 benzyl bromide, 1738 benzyl chloride, 1750 chloroacetic acid solution, 1751 chloroacetic acid, solid, 2017 ammunition, tear-producing, non-explosive without burster or expelling charge, non-fuzed, 2022 cresylic acid, 2076 cresols (o-,m-,p-), 2267 dimethyl thiophosphoryl chloride, 2745 chloromethyl chloroformate, 2746 phenyl chloroformate, 2748 2-ethylhexyl chloroformate, 3277 chloroformates, toxic, corrosive, n.o.s., 2927 toxic liquid, corrosive, organic, n.o.s., 2928 toxic solid, corrosive, organic, n.o.s.

NOTE: Chloroformates having predominantly corrosive properties are substances of Class 8 (see marginal 2801, 64°).

28° Flammable corrosive toxic chloroformates:

- (a) 1722 allyl chloroformate, 2740 n-propyl chloroformate;
- (b) 2743 n-butyl chloroformate, 2744 cyclobutyl chloroformate, 2742 chloroformates, toxic, corrosive, flammable, n.o.s.

NOTE: Chloroformates having predominantly corrosive properties are substances of Class 8 (see marginal 2801, 64°).

C. Organometallic compounds and carbonyls

NOTE 1: Toxic organometallic compounds used as pesticides are substances of 75° and 76°.

NOTE 2: Spontaneously combustible organometallic compounds are substances of Class 4.2 (see marginal 2431, 31° to 33°).

NOTE 3: Water-reactive organometallic compounds, flammable, are substances of Class 4.3 (see marginal 2471, 3°).

31° Organic lead compounds:

- (a) 1649 motor fuel anti-knock mixture (tetraethyl lead, tetramethyl lead).

2601
(cont'd)

32° Organic tin compounds:

- (a) 2788 organotin compound, liquid, n.o.s.,
3146 organotin compound, solid, n.o.s.;
- (b) 2788 organotin compound, liquid, n.o.s.,
3146 organotin compound, solid, n.o.s.;
- (c) 2788 organotin compound, liquid, n.o.s.,
3146 organotin compound, solid, n.o.s.

33° Organic mercury compounds:

- (a) 2026 phenylmercuric compound, n.o.s.;
- (b) 1674 phenylmercuric acetate, 1894 phenylmercuric
hydroxide, 1895 phenylmercuric nitrate,
2026 phenylmercuric compound, n.o.s.;
- (c) 2026 phenylmercuric compound, n.o.s.

34° Organic arsenic compounds:

- (a) 1698 diphenylamine chloroarsine,
1699 diphenylchloroarsine, 1892 ethyldichloroarsine,
3280 organoarsenic compound, n.o.s.;
- (b) 3280 organoarsenic compound, n.o.s.;
- (c) 2473 sodium arsanilate,
3280 organoarsenic compound, n.o.s.

35° Other organometallic compounds:

- (a) 3282 organometallic compound, toxic, n.o.s.;
- (b) 3282 organometallic compound, toxic, n.o.s.;
- (c) 3282 organometallic compound, toxic, n.o.s.

36° Carbonyls:

- (a) 3281 metal carbonyls, n.o.s.;
- (b) 3281 metal carbonyls, n.o.s.;
- (c) 3281 metal carbonyls, n.o.s.

D. Inorganic substances which, on contact with water (or atmospheric humidity), may emit toxic gases, aqueous solutions or acids and other toxic water-reactive substances

41o Inorganic cyanides:

- 2601
(cont'd)
- (a) 1565 barium cyanide, 1575 calcium cyanide, 1626 mercuric potassium cyanide, 1680 potassium cyanide, 1689 sodium cyanide, 1713 zinc cyanide, 2316 sodium cuprocyanide, solid, 2317 sodium cuprocyanide, solution, 1588 cyanides, inorganic, solid, n.o.s., 1935 cyanide solution, n.o.s.;
 - (b) 1587 copper cyanide, 1620 lead cyanide, 1636 mercury cyanide, 1642 mercury oxycyanide, desensitized, 1653 nickel cyanide, 1679 potassium cuprocyanide, 1684 silver cyanide, 1588 cyanides, inorganic, solid, n.o.s.; 1935 cyanide solution, n.o.s.;
 - (c) 1588 cyanides, inorganic, solid, n.o.s., 1935 cyanide solution, n.o.s.

NOTE 1: Ferricyanides, ferrocyanides, alkaline thiocyanates and ammonium thiocyanate are not subject to the provisions of ADR.

NOTE 2: Solutions of inorganic cyanides with a total cyanide ion content of more than 30% shall be classified under letter (a), solutions with a total cyanide ion content of more than 3% and not more than 30% under letter (b) and solutions with a cyanide ion content of more than 0.3% and not more than 3% under letter (c).

42o Azides:

- (b) 1687 sodium azide.

NOTE 1: 1571 barium azide, wetted, is a substance of Class 4.1 (see marginal 240), 25o).

NOTE 2: Barium azide in the dry state or with less than 50% water or alcohol is not to be accepted for carriage.

43o Preparations of phosphides containing additives inhibiting the emission of flammable gases:

- (a) 3048 aluminium phosphide pesticide.

NOTE 1: These preparations are not to be accepted for carriage unless they contain additives inhibiting the emission of flammable gases.

2601 NOTE 2: 1397 aluminium phosphide, 2011 magnesium phosphide,
(cont'd) 1714 zinc phosphide, 1432 sodium phosphide, 1360 calcium phosphide
and 2013 strontium phosphide are substances of Class 4.3 (see
marginal 2471, 18°).

44° Other water-reactive toxic substances:

(b) 3123 toxic liquid, water-reactive, n.o.s.,
3125 toxic solid, water-reactive, n.o.s.;

(c) 3123 toxic liquid, water-reactive, n.o.s.,
3125 toxic solid, water-reactive, n.o.s.

NOTE: The term "water-reactive" denotes a substance which, in
contact with water, emits flammable gases.

E. Other inorganic substances and metallic salts of organic
substances

51° Arsenic and arsenical compounds:

- (a) 1553 arsenic acid, liquid, 1560 arsenic trichloride,
1556 arsenic compound, liquid, n.o.s., (arsenates,
arsenites, and arsenic sulphides),
1557 arsenic compound, solid, n.o.s., (arsenates,
arsenites, and arsenic sulphides);
- (b) 1546 ammonium arsenate, 1554 arsenic acid, solid,
1555 arsenic bromide, 1558 arsenic, 1559 arsenic
pentoxide, 1561 arsenic trioxide, 1562 arsenical dust,
1572 cacodylic acid, 1573 calcium arsenate, 1574 calcium
arsenate and calcium arsenite mixture, solid, 1585 copper
acetoarsenite, 1586 copper arsenite, 1606 ferric arsenate,
1607 ferric arsenite, 1608 ferrous arsenate, 1617 lead
arsenates, 1618 lead arsenites, 1621 london purple,
1622 magnesium arsenate, 1623 mercuric arsenate,
1677 potassium arsenate, 1678 potassium arsenite,
1683 silver arsenite, 1685 sodium arsenate, 1686 sodium
arsenite, aqueous solution, 1688 sodium cacodylate,
1691 strontium arsenite, 1712 zinc arsenate, or 1712 zinc
arsenite or 1712 zinc arsenate and zinc arsenite mixture,
2027 sodium arsenite, solid,
1556 arsenic compound, liquid, n.o.s. (arsenates,
arsenites, and arsenic sulphides),
1557 arsenic compound, solid, n.o.s. (arsenates,
arsenites, and arsenic sulphides);

- 2601 (c) 1686 sodium arsenite, aqueous solution,
(cont'd) 1556 arsenic compound, liquid, n.o.s. (arsenates,
arsenites, and arsenic sulphides),
1557 arsenic compound, solid, n.o.s. (arsenates,
arsenites, and arsenic sulphides).

NOTE: Substances and preparations containing arsenic and used as pesticides are substances of 79°.

52° Mercury compounds:

- (a) 2024 mercury compound, liquid, n.o.s.,
2025 mercury compound, solid, n.o.s.;
- (b) 1624 mercuric chloride, 1625 mercuric nitrate,
1627 mercurous nitrate, 1629 mercury acetate, 1630 mercury
ammonium chloride, 1631 mercury benzoate, 1634 mercury
bromides, 1637 mercury gluconate, 1638 mercury iodide,
1639 mercury nucleate, 1640 mercury oleate, 1641 mercury
oxide, 1643 mercury potassium iodide,
1644 mercury salicylate, 1645 mercury sulphate,
1646 mercury thiocyanate,
2024 mercury compound, liquid, n.o.s.,
2025 mercury compound, solid, n.o.s.;
- (c) 2024 mercury compound, liquid, n.o.s.,
2025 mercury compound, solid, n.o.s.

NOTE 1: Substances and preparations containing mercury and used as pesticides are substances of 75°.

NOTE 2: Mercurous chloride (calomel) is a substance of Class 9 (see marginal 2901, 12 °c). Cinnabar is not subject to the provisions of ADR.

NOTE 3: Fulminates of mercury are not to be accepted for carriage.

53° Thallium compounds:

- (b) 1707 thallium compound, n.o.s.

NOTE 1: Substances and preparations containing thallium and used as pesticides are substances of 85°.

NOTE 2: 2727 thallium nitrate is a substance of 68°.

2601 54° Beryllium and beryllium compounds:
(cont'd)

- (b) 1. 1567 beryllium, powder;
2. 1566 beryllium compound, n.o.s.;
- (c) 1566 beryllium compound, n.o.s.

NOTE: 2464 beryllium nitrate is a substance of Class 5.1 [see marginal 2501, 29° (b)].

55° Selenium and selenium compounds:

- (a) 2630 selenates or 2630 selenites,
3283 selenium compound, n.o.s.;
- (b) 2657 selenium disulphide,
3283 selenium compound, n.o.s.;
- (c) 2658 selenium powder,
3283 selenium compound, n.o.s.

NOTE: 1905 selenic acid is a substance of Class 8 [see marginal 2801, 16° (a)].

56° Osmium compounds:

- (a) 2471 osmium tetroxide.

57° Tellurium compounds:

- (b) 3284 tellurium compound, n.o.s.;
- (c) 3284 tellurium compound, n.o.s.

58° Vanadium compounds:

- (b) 2859 ammonium metavanadate, 2861 ammonium polyvanadate,
2862 vanadium pentoxide, non-fuzed form, 2863 sodium
ammonium vanadate, 2864 potassium metavanadate,
2931 vanadyl sulphate,
3285 vanadium compound, n.o.s.;
- (c) 3285 vanadium compound, n.o.s.

NOTE 1: 2443 vanadium oxytrichloride, 2444 vanadium tetrachloride and 2475 vanadium trichloride are substances of Class 8 (see marginal 2801, 11° and 12°).

2601 NOTE 2: Vanadium pentoxide, fused and solidified, is not subject to
(cont'd) the provisions of ADR.

59° Antimony and antimony compounds:

- (c) 1550 antimony lactate, 1551 antimony potassium tartrate,
2871 antimony powder,
1549 antimony compound, solid, n.o.s.,
3141 antimony compound, inorganic, liquid, n.o.s.

NOTE 1: 1730 antimony pentafluoride, liquid, 1731 antimony pentafluoride solution, 1733 antimony trichloride and 1732 antimony pentafluoride are substances of Class 8 (see marginal 2801, 10°, 11° and 12°).

NOTE 2: Antimony oxides and antimony sulphide with an arsenic content not exceeding 0.5% of the total mass, are not subject to the provisions of ADR.

60° Barium compounds:

- (b) 1564 barium compound, n.o.s.;
(c) 1884 barium oxide, 1564 barium compound, n.o.s.

NOTE 1: 1445 barium chlorate, 1446 barium nitrate, 1447 barium perchlorate, 1448 barium permanganate and 1449 barium peroxide are substances of Class 5.1 (see marginal 2501, 29°).

NOTE 2: 1571 barium azide, wetted, is a substance of Class 4.1 (see marginal 2401, 25°).

NOTE 3: Barium stearate, barium sulphate and barium titanate are not subject to the provisions of ADR.

61° Cadmium compounds:

- (a) 2570 cadmium compound;
(b) 2570 cadmium compound;
(c) 2570 cadmium compound.

NOTE: Cadmium pigments, such as cadmium sulphides, cadmium sulphoselenides and cadmium salts of higher fatty acids (e.g. cadmium stearate), are not subject to the provisions of ADR.

2601 62° Lead compounds:
(cont'd)

- (c) 1616 lead acetate,
2291 lead compound, soluble, n.o.s.

NOTE 1: 1469 lead nitrate and 1470 lead perchlorate are substances of Class 5.1 (see marginal 2501, 29°).

NOTE 2: Lead salts and lead pigments which, when mixed in a ratio of 1:1,000 with 0.07 M hydrochloric acid and stirred for one hour at a temperature of $23^{\circ}\text{C} \pm 2^{\circ}\text{C}$, exhibit a solubility of 5% or less are not subject to the provisions of ADR.

63° Fluorides soluble in water:

- (c) 1690 sodium fluoride, 1812 potassium fluoride,
2505 ammonium fluoride.

NOTE: Corrosive fluorides are substances of Class 8 (see marginal 2801, 6° to 10°).

64° Fluorosilicates:

- (c) 2655 potassium fluorosilicate, 2674 sodium fluorosilicate,
2853 magnesium fluorosilicate, 2854 ammonium
fluorosilicate, 2855 zinc fluorosilicate,
2856 fluorosilicates, n.o.s.

65° Inorganic substances and solutions and mixtures of inorganic substances (such as preparations and wastes) which cannot be classified under another collective heading:

- (a) 3287 toxic liquid, inorganic, n.o.s.,
3288 toxic solid, inorganic, n.o.s.;
- (b) 3243 solids containing toxic liquid, n.o.s.,
3287 toxic liquid, inorganic, n.o.s.,
3288 toxic solid, inorganic, n.o.s.;

NOTE: Mixtures of solids and toxic liquids which are not subject to the provisions of ADR may be carried under number 3243 without the classification criteria for Class 6.1 being applied to them, provided that no liquid overflow is visible during loading or when the packaging or transport unit is closed. Each packaging shall correspond to a design type which has passed the leakproofness test for packing group II. This number shall not be used for solids containing a liquid classified under letter (a).

- 2601 (cont'd) (c) 3293 hydrazine aqueous solution, with not more than 37% hydrazine by mass,
3287 toxic liquid, inorganic, n.o.s., 3288 toxic solid, inorganic, n.o.s.

NOTE: 2030 hydrazine hydrate and 2030 hydrazine aqueous solution, with not less than 37% and not more than 64% hydrazine, by mass, are substances of Class 8 [see marginal 2801, 44^a(b)].

66° Toxic, self-heating substances:

- (a) 3124 toxic solid, self-heating, n.o.s.;
(b) 3124 toxic solid, self-heating, n.o.s.

67° Toxic substances, corrosive:

- (a) 3289 toxic liquid, corrosive, inorganic, n.o.s.,
3290 toxic solid, corrosive, inorganic, n.o.s.;
(b) 3289 toxic liquid, corrosive, inorganic, n.o.s.,
3290 toxic solid, corrosive, inorganic, n.o.s.

68° Toxic substances, oxidizing:

- (a) 3086 toxic solid, oxidizing, n.o.s.,
3122 toxic liquid, oxidizing, n.o.s.;
(b) 2727 thallium nitrate,
3086 toxic solid, oxidizing, n.o.s.,
3122 toxic liquid, oxidizing, n.o.s.

2601 F. Substances and preparations used as pesticides
(cont'd)

NOTE 1: Flammable liquid substances and preparations, used as pesticides, which are highly toxic, toxic or harmful and have a flash-point below 23 °C, are substances of Class 3 (see marginal 2301, 41° to 57°).

NOTE 2: (a) Articles impregnated with substances and preparations used as pesticides of 71° to 87°, such as fibreboard plates, paper strips, cotton-wool balls, sheets of plastics material, etc. in airtight, hermetically closed wrappings are not subject to the provisions of ADR.

(b) Substances such as baits and cereals impregnated with substances and preparations used as pesticides of 71° to 87° or other substances of Class 6.1 shall be classified according to their toxicity (see marginal 2600(3) and NOTE 3 below).

71° to 87°: In these items, substances and preparations used as pesticides are tabulated under groups designated by the letters (a), (b), (c):

- (a): Highly toxic substances and preparations,
- (b): Toxic substances and preparations,
- (c): Slightly toxic substances and preparations.

NOTE 1: All active substances and their preparations used as pesticides shall be classified under 71° to 87° (a), (b) and (c) in accordance with marginal 2600(3).

NOTE 2: If only the LD₅₀ value of the active substance is known and not that of the preparations of the active substance, the preparations may be classified under 71° to 87° (a), (b) or (c) using the following tables, where the figures shown in columns (a), (b) and (c) of 71° to 87° represent the percentage of active pesticide substance in the preparations.

NOTE 3: The aim of the following tables is to show the range of pesticides and their preparations corresponding to the different packing groups according to the concentration of active substance. If the LD₅₀ of the preparation is known and if the packing groups determined by applying the criteria in marginal 2600(3) do not correspond to the packing groups indicated in the following tables based on the concentration of active substance in the preparation, the packing group determined in accordance with the criteria in marginal 2600(3) shall take precedence.

NOTE 4: For substances which are not named in the list, and for which only the LD₅₀ value of the active substance

2601 is known and not the LD₅₀ value of the various preparations,
(cont'd) the classification of a preparation may be determined from the table in marginal 2600(3), using an LD₅₀ value obtained by multiplying the LD₅₀ value of the active substance by:

$$\frac{100,}{X}$$

X being the percentage of active substance by mass according to the following formula:

LD₅₀ value of the preparation =

$$\frac{\text{LD}_{50} \text{ value of the active substance} \times 100}{\% \text{ of active substance by mass}}$$

NOTE 5: The classification according to Notes 2, 3 and 4 above shall not be used when the preparations contain additives which affect the toxicity of the active substance or when a preparation contains more than one active substance. In such cases, the classification shall be based on the LD₅₀ value of the preparation in question according to the criteria in marginal 2600(3). If the LD₅₀ value is not known, the substance shall be classified under (a) of 71° to 87°.

71° 2783 organophosphorus pesticide, solid, toxic,
3017 organophosphorus pesticide, liquid, toxic,
flammable, flash-point not less than 23 °C,
3018 organophosphorus pesticide, liquid, toxic, including:

	71° (a)	71° (b)	71° (c)	
	%	%	solid %	liquid %
<u>Azinphos-ethyl</u>	-	100->25	25-6	25-2
<u>Azinphos-methyl</u>	-	100->10	10-2	10-1
<u>Bromophos-ethyl</u>	-	-	100-35	100-14
<u>Carbophenothion</u>	-	100->20	20-5	20-2
<u>Chlorfenvinphos</u>	-	100->20	20-5	20-2
<u>Chlormephos</u>	-	100->15	15-3	15-1
<u>Chlorpyrifos</u>	-	-	100-40	100-10
<u>Chlorthiophos</u>	-	100->15	15-4	15-1
<u>Crotoxyphos</u>	-	-	100-35	100-15
<u>Crufomate</u>	-	-	-	100-90
<u>Cyanophos</u>	-	-	100-55	100-55
<u>DEF</u>	-	-	-	100-40

2601
(cont'd)

	71° (a)	71° (b)	71° (c)	
	%	%	solid %	liquid %
<u>Demephion</u>	100->0	-	-	-
<u>Demeton</u>	100->30	30->3	3-0.5	3->0
<u>Demeton-O (systox)</u>	100->34	34->3.4	3.4-0.85	3.4-0.34
<u>Demeton-O-methyl</u>	-	-	100-90	100-35
<u>Demeton-S-methyl</u>	-	100->80	80-30	80-10
<u>Demeton-S-methylsulphone</u>	-	100->74	74-18.5	74-7.4
<u>Dialifos</u>	-	100->10	10-2.5	10-1
<u>Diazinon</u>	-	-	100-38	100-15
<u>Dichlofenthion</u>	-	-	-	100-54
<u>Dichlorvos</u>	-	100->35	35-7	35-7
<u>Dicrotophos</u>	-	100->25	25-6	25-2
<u>Dimefox</u>	100->20	20->2	2-0.5	2->0
<u>Dimethoate</u>	-	-	100-73	100-29
<u>Dioxathion</u>	-	100->40	40-10	40-4
<u>Disulfoton</u>	100->40	40->4	4-1	4->0
<u>Edifenphos</u>	-	-	100-75	100-30
<u>Endothion</u>	-	100->45	45-10	45-4
<u>EPN</u>	100->62	62->12.5	12.5-2.5	12.5-2.5
<u>Ethion</u>	-	100->25	25-5	25-2
<u>Ethoate-methyl</u>	-	-	100-60	100-25
<u>Ethoprophos</u>	100->65	65->13	13-2	13-2
<u>Fenaminphos</u>	100->40	40->4	4-1	4->0
<u>Fenitrothion</u>	-	-	-	100-48
<u>Fensulfotothion</u>	100->40	40->4	4-1	4->0
<u>Fenthion</u>	-	-	100-95	100-38
<u>Fonophos</u>	100->60	60->6	6-1	6-0.5
<u>Formothion</u>	-	-	-	100-65
<u>Heptenophos</u>	-	-	100-48	100-19
<u>Iprobenfos</u>	-	-	-	100-95
<u>Isofenphos</u>	-	100->60	60-15	60-6
<u>Isothioate</u>	-	-	100-25	100-25
<u>Isoxathion</u>	-	-	100-55	100-20
<u>Mecarbam</u>	-	100->30	30-7	30-3
<u>Mephosfolan</u>	100->25	25->5	5-0.5	5-0.5
<u>Methamidophos</u>	-	100->15	15-3	15-1.5
<u>Methidathion</u>	-	100->40	40-10	40-4
<u>Methyltrithion</u>	-	-	100-49	100-19
<u>Mevinphos</u>	100->60	60->5	5-1	5-0.5
<u>Monocrotophos</u>	-	100->25	25-7	25-2.5
<u>Naled</u>	-	-	-	100-50
<u>Omethoate</u>	-	-	100-25	100-10
<u>Oxydemeton-methyl</u>	-	100->93	93-23	93-9
<u>Oxydisulfoton</u>	100->70	70->5	5-1.5	5-0.5
<u>Paraoxon</u>	100->35	35->3	3-0.9	3-0.35
<u>Parathion</u>	100->40	40->4	4-1	4-0.4
<u>Parathion-methyl</u>	-	100->12	12-3	12-1.2
<u>Phenkapton</u>	-	-	100-25	100-10
<u>Phenthoat</u>	-	-	100-70	100-0

2601 (cont'd)	71° (a)	71° (b)	71° (c)	
	%	%	solid %	liquid %
<u>Phorate</u>	100->20	20->2	2-0.5	2->0
<u>Phosalone</u>	-	-	100-60	100-24
<u>Phosfolan</u>	-	100->15	15-4	15-1
<u>Phosmet</u>	-	-	100-45	100-18
<u>Phosphamidon</u>	-	100->34	34-8	34-3
<u>Pirimiphos-ethyl</u>	-	-	100-70	100-28
<u>Propaphos</u>	-	100->75	75-15	75-15
<u>Prothoate</u>	-	100->15	15-4	15-1
<u>Pyrazophos</u>	-	-	-	100-45
<u>Pyrazoxon</u>	100->80	80->8	8-2	8-0.5
<u>Quinalphos</u>	-	100->52	52-13	52-5
<u>Salithion</u>	-	-	100-60	100-25
<u>Schradan</u>	-	100->18	18-9	18-3.6
<u>Sulfotep</u>	-	100->10	10-2	10-1
<u>Sulprofos</u>	-	-	100-45	100-18
<u>Temephos</u>	-	-	100-90	100-90
<u>TEPP</u>	100->10	10->0	-	-
<u>Terbufos</u>	100->15	150->3	3-0.74	3-0.74
<u>Thiomethon</u>	-	100->50	50-10	50-5
<u>Thionazin</u>	100->70	70->5	5-1	5-0.5
<u>Triamiphos</u>	-	100->20	20-5	20-1
<u>Triazophos</u>	-	-	100-33	100-13
<u>Trichlorfon</u>	-	-	100-70	100-23
<u>Trichloronat</u>	-	100->30	30-8	30-3
<u>Vamidothion</u>	-	-	100-30	100-10

72° 2761 organochlorine pesticide, solid, toxic,
2995 organochlorine pesticide, liquid, toxic, flammable,
flash-point not less than 23 °C,
2996 organochlorine pesticide, liquid, toxic, including:

	72° (a)	72° (b)	72° (c)	
	%	%	solid %	liquid %
<u>Aldrin</u>	-	100->75	75-19	75-7
<u>Allidochlor</u>	-	-	100-35	100-35
<u>Camphochlor</u>	-	-	100-40	100-15
<u>Chlordane</u>	-	-	-	100-55
<u>Chlordimeform</u>	-	-	-	100-50
<u>Chlordimeform hydrochloride</u>	-	-	-	100-70
<u>Chlorophacinone</u>	100->40	40->4	4-1	4-0.4
<u>Crimidine</u>	100->25	25->2	2-0.5	2->0
<u>DDT</u>	-	-	100-55	100-20
<u>1, 2-dibromo-3-chloropropane</u>	-	-	100-85	100-34
<u>Dieldrin</u>	-	100->75	75-19	75-7
<u>Endosulfan</u>	-	100->80	80-20	80-8
<u>Endrin</u>	100->60	60->6	6-1	6-0.5
<u>Heptachlor</u>	-	100->80	80-20	80-8
<u>Isobenzene</u>	100->10	10->2	2-0.4	2-0.4
<u>Isodrin</u>	-	100->14	14-3	14-1
<u>Lindane (γ BHC)</u>	-	-	100-44	100-55
<u>Mirex</u>	-	-	-	100-60
<u>Pentachlorophenol</u>	-	100->54	54-13	54-5

2601 73° 2765 phenoxy pesticide, solid, toxic
 (cont'd) 2999 phenoxy pesticide, liquid, toxic, flammable, flash-point
not less than 23 °C,
3000 phenoxy pesticide, liquid, toxic, including:

	73° (a)	73° (b)	73° (c)	
	%	%	solid %	liquid %
<u>2, 4-D</u>	-	-	-	100-75
<u>2, 4-DB</u>	-	-	-	100-40
<u>2, 4, 5-T</u>	-	-	-	100-60
<u>Triadimefon</u>	-	-	-	100-70

74° 2757 carbamate pesticide, solid, toxic,
2991 carbamate pesticide, liquid, toxic, flammable, flash-point
not less than 23 °C,
2992 carbamate pesticide, liquid, toxic, including:

	74° (a)	74° (b)	74° (c)	
	%	%	solid %	liquid %
<u>Aldicarb</u>	100-> 15	15->1	1->0	1->0
<u>Aminocarb</u>	-	100->60	60-15	60- 6
<u>Bendiocarb</u>	-	100->65	65-15	65- 5
<u>Benfuracarb</u>	-	-	100-55	100-20
<u>Butocarboxim</u>	-	-	100-75	100-30
<u>Carbaryl</u>	-	-	100-30	100-10
<u>Carbofuran</u>	-	100->10	10- 2	10- 1
<u>Cartap HCL</u>	-	-	100-40	100-40
<u>Di-allate</u>	-	-	-	100-75
<u>Dimetan</u>	-	-	100-60	100-24
<u>Dimetilan</u>	-	100->50	50-12	50- 5
<u>Dioxacarb</u>	-	-	100-30	100-10
<u>Formetanate</u>	-	100->40	40-10	40- 4
<u>Isolan</u>	-	100->20	20- 5	20- 2
<u>Isoprocarb</u>	-	-	100-85	100-35
<u>Mercaptodimethur</u>	-	100->70	70-17	70- 7
<u>Methasulfocarb</u>	-	-	100-55	100-20
<u>Methomyl</u>	-	100->34	34- 8	34- 3
<u>Mexacarbate</u>	-	100->28	28- 7	28- 2
<u>Mobam</u>	-	-	100-35	100-14
<u>Oxamyl</u>	-	100->10	10- 2.5	10- 1
<u>Pirimicarb</u>	-	-	100-73	100-29
<u>Promecarb</u>	-	-	100-35	100-14
<u>Promurit (Muritan)</u>	100->5.6	5.6-0.56	0.56-0.14	0.56->0
<u>Proxopur</u>	-	-	100-45	100-18

- 2601 75° 2777 mercury based pesticide, solid, toxic,
 (cont'd) 3011 mercury based pesticide, liquid, toxic, flammable,
flash-point not less than 23 °C,
3012 mercury based pesticide, liquid, toxic, including:

	75° (a)	75° (b)	75° (c)	
	%	%	solid %	liquid %
<u>Phenylmercuric acetate (PMA)</u>	-	100->60	60-15	60-6
<u>Mercuric chloride</u>	-	100->70	70-17	70-7
<u>Chloro-methoxy</u> <u>ethyl mercury</u>	-	100->40	40-10	40-4
<u>Mercury oxide</u>	-	100->35	35- 8	35-3
<u>Phenylmercury pyrocatechin (PMB)</u>	-	100->60	60-15	60-6

- 76° 2786 organotin pesticide, solid, toxic,
3019 organotin pesticide, liquid, toxic, flammable,
flash-point not less than 23 °C,
3020 organotin pesticide, liquid, toxic, including:

	76° (a)	76° (b)	76° (c)	
	%	%	solid %	liquid %
<u>Fentin acetate</u>	-	-	100- 62	100-25
<u>Cyhexatin</u>	-	-	100- 95	100-35
<u>Fentin hydroxide</u>	-	-	100- 54	100-20

- 77° 3025 coumarin derivative pesticide, liquid, toxic, flammable,
flash-point not less than 23 °C,
3026 coumarin derivative pesticide, liquid, toxic,
3027 coumarin derivative pesticide, solid, toxic, including:

	77° (a)	77° (b)	77° (c)	
	%	%	solid %	liquid %
<u>Brodifacoum</u>	100-> 5	5->0.5	0.5- 0.13	0.5- 0.05
<u>Coumachlor</u>	-	-	100- 25	100-10
<u>Coumafuryl</u>	-	-	-	100-80
<u>Coumaphos</u>	-	100->30	30- 8	30- 3
<u>Coumatetralyl (Racumin)</u>	-	100->34	34- 8.5	34- 3.4
<u>Dicoumarol</u>	-	-	100- 25	100-10
<u>Difenacoum</u>	100->35	35->3.5	3.5- 0.9	3.5- 0.35
<u>Warfarin (and salts of)</u>	100->60	60-> 6	6- 1.5	6- 0.6

- 2601 78° 2781 bipyridilium pesticide, solid, toxic,
 (cont'd) 3015 bipyridilium pesticide, liquid, toxic, flammable,
flash-point not less than 23 °C,
3016 bipyridilium pesticide, liquid, toxic, including:

	78° (a)	78° (b)	78° (c)	
	%	%	solid %	liquid %
<u>Diquat</u>	-	-	-	100-45
<u>Paraquat</u>	-	100->40	40-8	40- 8

- 79° 2759 arsenical pesticide, solid, toxic,
2993 arsenical pesticide, liquid, toxic, flammable,
flash-point not less than 23 °C
2994 arsenical pesticide, liquid, toxic, including:

	79° (a)	79° (b)	79° (c)	
	%	%	solid %	liquid %
<u>Arsenic anhydride</u>	-	100->40	40-10	40-4
<u>Calcium arsenate</u>	-	100->40	40-10	40-4
<u>Sodium arsenite</u>	-	100->20	20- 5	20-2

- 80° 2775 copper based pesticide, solid, toxic,
3009 copper based pesticide, liquid, toxic, flammable,
flash-point not less than 23 °C,
3010 copper based pesticide, liquid, toxic, including:

	80° (a)	80° (b)	80° (c)	
	%	%	solid %	liquid %
<u>Copper sulphate</u>	-	-	100-50	100-20

- 81° 2779 substituted nitrophenol pesticide, solid, toxic,
3013 substituted nitrophenol pesticide, liquid, toxic,
flammable, flash-point not less than 23 °C,
3014 substituted nitrophenol pesticide, liquid, toxic,
including:

	81° (a)	81° (b)	81° (c)	
	%	%	solid %	liquid %
<u>Binapacryl</u>	-	-	100-65	100-25
<u>Dinobuton</u>	-	-	100-25	100-10
<u>Dinoseb</u>	-	100->40	40- 8	40- 8
<u>Dinoseb acetate</u>	-	-	100-30	100-10
<u>Dinoterb</u>	-	100->50	50-10	50- 5
<u>Dinoterb acetate</u>	-	100->50	50-12	50- 5
<u>DNOC</u>	-	100->50	50-12	50- 5
<u>Medinoterb</u>	-	100->80	80-20	80- 6

2601 82° 2763 triazine pesticide, solid, toxic,
 (cont'd) 2997 triazine pesticide, liquid, toxic, flammable,
flash-point not less than 23 °C,
2998 triazine pesticide, liquid, toxic, including:

	82° (a)	82° (b)	82° (c)	
	%	%	solid %	liquid %
<u>Cyanazin</u>	-	-	100-90	100-35
<u>Terbumeton</u>	-	-	-	100-95

83° 2769 benzoic derivative pesticide, solid, toxic,
3003 benzoic derivative pesticide, liquid, toxic, flammable,
flash-point not less than 23 °C,
3004 benzoic derivative pesticide, liquid, toxic, including:

	83° (a)	83° (b)	83° (c)	
	%	%	solid %	liquid %
<u>Tricamba</u>	-	-	-	100-60

84° 2773 phthalimide derivative pesticide, solid, toxic,
3007 phthalimide derivative pesticide, liquid, toxic,
flammable, flash-point not less than 23 °C,
3008 phthalimide derivative pesticide, liquid, toxic,
including:

	84° (a)	84° (b)	84° (c)	
	%	%	solid %	liquid %
... */	-	-	-	-

85° 2767 phenyl urea pesticide, solid, toxic,
3001 phenyl urea pesticide, liquid, toxic, flammable,
flash-point not less than 23 °C,
3002 phenyl urea pesticide, liquid, toxic, including:

	85° (a)	85° (b)	85° (c)	
	%	%	solid %	liquid %
... */	-	-	-	-

*/ No pesticide currently assigned to this collective entry.

2601 86° 2771 dithiocarbamate pesticide, solid, toxic,
 (cont'd) 3005 dithiocarbamate pesticide, liquid, toxic, flammable,
flash-point not less than 23 °C,
3006 dithiocarbamate pesticide, liquid, toxic,
 including:

	86° (a)	86° (b)	86° (c)	
	%	%	solid %	liquid %
<u>Metam sodium</u>	-	-	100-85	100-35

87° Pesticides which cannot be classified under items 71° to 86°:
2588 pesticide, solid, toxic, n.o.s.,
2902 pesticide, liquid, toxic, n.o.s.,
2903 pesticide, liquid, toxic, flammable, n.o.s., flash-point
 not less than 23 °C, such as:

Organonitrogenous compounds

	87° (a)	87° (b)	87° (c)	
	%	%	solid %	liquid %
<u>Benquinox</u>	-	-	100-50	100-20
<u>Chinomethionate</u>	-	-	100-50	100-50
<u>Cycloheximide</u>	100-)>40	40-)>4	4-1	4-)>0
<u>Drazoxalon</u>	-	-	100-63	100-25

Alkaloids

	87° (a)	87° (b)	87° (c)	
	%	%	solid %	liquid %
<u>Preparations of nicotine</u>	-	100-)>25	25-5	25-5
<u>Strychnine</u>	100-)>20	20-)>0	-	-

Other organometallic compounds

	87° (a)	87° (b)	87° (c)	
	%	%	solid %	liquid %
... ±/	-	-	-	-

±/ No pesticide currently assigned to this collective entry.

2601 Inorganic fluorine compounds
(cont'd)

	87° (a)	87° (b)	87° (c)	
	%	%	solid %	liquid %
<u>Barium silico-fluoride</u>	-	-	100-88	100-35
<u>Sodium silico-fluoride</u>	-	-	100-62	100-25

Inorganic thallium compounds

	87° (a)	87° (b)	87° (c)	
	%	%	solid %	liquid %
<u>Thallium sulphate</u>	-	100-30	30-8	30-3

Other pesticides

	87° (a)	87° (b)	87° (c)	
	%	%	solid %	liquid %
<u>ANTU</u>	100-340	40-34	4-1	4-0.8
<u>Elasticidin-S-3</u>	-	-	100-25	100-10
<u>Bromoxynil</u>	-	-	100-95	100-38
<u>Dazomet</u>	-	-	-	100-60
<u>Difenzoquat</u>	-	-	-	100-90
<u>Dimexano</u>	-	-	-	100-48
<u>Diphacinone</u>	100-325	25-3	3-0.7	3-0.2
<u>Endothal-sodium</u>	-	100-375	75-19	75-7
<u>Fenaminosulph</u>	-	100-350	50-10	50-10
<u>Fenpropathrin</u>	-	-	100-30	100-10
<u>Fluoracetamide</u>	-	100-325	25-6.7	25-2.5
<u>Imazalil</u>	-	-	-	100-64
<u>Ioxynil</u>	-	-	100-80	100-20
<u>Kelevan</u>	-	-	-	100-48
<u>Norbormide</u>	100-388	88-38.8	8.8-2.2	8.8-0.8
<u>Pindone and its salts</u>	-	-	-	100-55
<u>Rotenon</u>	-	-	100-65	100-25

2601 Pyrethrinoids
(cont'd)

	87° (a)	87° (b)	87° (c)	
	%	%	solid %	liquid %
Cypermethrin	-	-	100-80	100-32

NOTE: Aluminium phosphide pesticides are substances of 43° (a).

G. Active substances such as those intended for laboratories and experiments and for the manufacture of pharmaceutical products, if not listed under other items of this Class.

90° Active substances, including:

- (a) 1570 brucine, 1692 strychnine or 1692 strychnine salts, 1544 alkaloids, solid, n.o.s. or 1544 alkaloid salts, solid, n.o.s., 1655 nicotine compound, solid, n.o.s. or 1655 nicotine preparation, solid, n.o.s., 3140 alkaloids, liquid, n.o.s. or 3140 alkaloid salts, liquid, n.o.s., 3144 nicotine compound, liquid, n.o.s. or 3144 nicotine preparation, liquid, n.o.s., 3172 toxins extracted from living sources, n.o.s.
- (b) 1654 nicotine, 1656 nicotine hydrochloride or 1656 nicotine hydrochloride solution, 1657 nicotine salicylate, 1658 nicotine sulphate, solid or 1658 nicotine sulphate solution, 1659 nicotine tartrate, 1544 alkaloids, solid, n.o.s. or 1544 alkaloid salts, solid, n.o.s., 1655 nicotine compound, solid, n.o.s. or 1655 nicotine preparation, solid, n.o.s., 1851 medicine, liquid, toxic, n.o.s., 3140 alkaloids, liquid, n.o.s. or 3140 alkaloid salts, liquid, n.o.s., 3144 nicotine compound, liquid, n.o.s. or 3144 nicotine preparation, liquid, n.o.s., 3172 toxins extracted from living sources, n.o.s., 3249 medicine, solid, toxic, n.o.s.
- (c) 1544 alkaloids, solid, n.o.s. or 1544 alkaloids salts, solid, n.o.s., 1655 nicotine compound, solid, n.o.s. or 1655 nicotine preparation, solid, n.o.s., 1851 medicine, liquid, toxic, n.o.s., 3140 alkaloids, liquid, n.o.s. or 3140 alkaloid salts, liquid, n.o.s., 3144 nicotine compound, liquid, n.o.s. or

- 2601 3144 nicotine preparation, liquid, n.o.s.,
(cont'd) 3172 toxins extracted from living sources, n.o.s.,
 3249 medicine, solid, toxic, n.o.s.

NOTE 1: The active substances and triturations or mixtures of substances of 90° with other substances shall be classified according to their toxicity [see marginal 2600(3)].

NOTE 2: Pharmaceutical products ready for use, e.g. cosmetics, drugs and medicines, which are substances manufactured and packed in packagings of a type intended for retail sale or distribution for personal or household consumption, which would otherwise be substances of 90° are not subject to the provisions of ADR.

NOTE 3: Substances and preparations containing alkaloids or nicotine used as pesticides are substances of 87°.

H. Empty packagings

NOTE: Empty packagings with residues from their previous contents adhering to the outside are not to be accepted for carriage.

- 91° Empty packagings, including empty intermediate bulk containers (IBCs) empty tank-vehicles, empty demountable tanks, empty tank-containers, empty bulk vehicles and empty bulk containers, uncleaned, which have contained substances of Class 6.1.

- 2601a Substances of 11°, 12°, 14° to 28°, 32° to 36°, 41°, 42°, 44°, 51° to 55°, 57° to 68°, 71° to 87° and 90° carried in conformity with the following provisions are subject neither to the provisions for this Class contained in this Annex nor to those contained in Annex B:

(a) Substances classified under (b) of each item:

Liquids: not more than 500 ml per inner packaging and not more than 2 litres per package;

Solids: not more than 1 kg per inner packaging and not more than 4 kg per package.

(b) Substances classified under (c) of each item:

Liquids: not more than 3 litres per inner packaging and not more than 12 litres per package.

Solids: not more than 6 kg per inner packaging and not more than 24 kg per package.

2601a These quantities of substances shall be carried in combination
(cont'd) packagings conforming at least to the conditions of marginal 3538.

The "General conditions of packing" of marginal 3500 (1), (2) and (5) to (7) shall be observed.

2. Provisions

A. Packages

1. General conditions of packing

2602 (1) Packagings shall satisfy the conditions of Appendix A.5, unless special conditions for the packing of certain substances are prescribed in marginals 2603 to 2608.

(2) Intermediate Bulk Containers (IBCs) shall satisfy the conditions of Appendix A.6.

(3) In accordance with the provisions of marginals 2600 (3) and 3511 (2) or 3611 (2) the following shall be used:

packagings of packing group I, marked with the letter "X", for the highly toxic substances classified under the letter (a) of each item;

packagings of packing group II or I, marked with the letter "Y" or "X", or IBCs of packing group II, marked with the letter "Y", for the toxic substances classified under the letter (b) of each item;

packagings of packing group III, II or I, marked with the letter "Z", "Y" or "X", or IBCs of packing group III or II, marked with the letter "Z" or "Y", for the slightly toxic substances classified under the letter (c) of each item.

NOTE: For the carriage of substances of Class 6.1 in tank-vehicles, demountable tanks or tank-containers; and for the carriage in bulk of solids of this Class, see Annex B.

2. Special conditions for packing of certain substances

2603 (1) Stabilized hydrogen cyanide of 1° shall be packed:

- (a) when completely absorbed by an inert porous material: in strong metal receptacles of a capacity of not more than 7.5 litres, placed in wooden cases in such a manner that they cannot come into contact with one another. Such a combination packaging shall comply with the following conditions:

- 2603 (1) (cont'd) 1. The receptacles shall be tested at a pressure of not less than 0.6 MPa (6 bar) (gauge pressure);
- (cont'd) 2. The receptacles shall be entirely filled with the porous material. The porous material shall not shake down or form dangerous spaces even after prolonged use or under impact, even at temperatures of up to 50 °C. The date of filling shall be durably marked on the lid of each receptacle;
3. The combination packaging shall be tested and approved, in accordance with Appendix A.5, for packing group I. The package shall not weigh more than 120 kg.

(b) when liquid, but not absorbed by a porous material: in carbon-steel pressure-resistant cylinders which shall satisfy the following conditions:

1. Before being used for the first time, the pressure-resistant cylinders shall undergo a hydraulic pressure test at a pressure of not less than 10 MPa (100 bar) (gauge pressure). The pressure test shall be repeated every two years and shall include a meticulous inspection of the inside of the receptacle and a check of the tare;
2. The cylinders shall comply with the relevant provisions of Class 2 (see marginals 2211, 2212(1)(a), 2213, 2215 and 2218);
3. Maximum permissible mass of the contents: 0.55 kg per litre of capacity.

(2) Solutions of hydrocyanic acid of 2° shall be packed in flame-sealed glass ampoules, containing not more than 50 g, or in glass bottles so closed as to be leakproof and containing not more than 250 g.

The ampoules or bottles shall be carried in combination packagings which meet the following conditions:

- (a) The ampoules and bottles shall be secured by absorbent cushioning materials in leakproof steel or aluminium outer packagings; a package shall not weigh more than 15 kg; or
- (b) The ampoules and bottles shall be secured by absorbent cushioning materials in wooden cases with a leakproof tin-plate lining; a package shall not weigh more than 75 kg.

2603 (2) The combination packagings referred to in (a) and (b) shall be tested and approved, in accordance with Appendix A.5, for packing group I.

2604 Iron pentacarbonyl and nickel tetracarbonyl of 3° shall be packed as follows:

(1) In seamless moulded bottles made of pure aluminium of a capacity not exceeding 1 litre and a wall thickness not less than 1 mm, which shall be tested at a pressure of not less than 1 MPa (10 bar) (gauge pressure). The bottles shall be closed by means of a metal screw-threaded plug with an inert gasket, the screw-threaded plug being screwed firmly into the neck of the bottle and so secured that it cannot work loose under normal conditions of carriage.

A maximum of four aluminium bottles of this type may be secured in outer packagings of wood or fibreboard by non-flammable absorbent cushioning material. Such a combination packaging shall conform to a design type which has been tested and approved for packing group I in accordance with Appendix A.5.

A package shall not weigh more than 10 kg.

(2) In metal receptacles fitted with completely leakproof closing devices which shall, if necessary, be secured against mechanical damage by protective caps. Steel receptacles of a capacity not exceeding 150 litres shall have a minimum wall thickness of 3 mm, and larger steel receptacles and receptacles made of other materials shall have walls at least thick enough to guarantee equivalent mechanical strength. The maximum capacity of receptacles permitted shall be 250 litres. The mass of the contents shall be not more than 1 kg of liquid per litre of capacity.

Before being used for the first time, the receptacles shall undergo a hydraulic pressure test at a pressure of not less than 1 MPa (10 bar) (gauge pressure). The pressure test shall be repeated every five years and shall include a meticulous inspection of the inside of the receptacle and a check of the tare. Metal receptacles shall bear the following particulars in clearly legible and durable characters:

- (a) the name of the substance in full (the names of both substances may also be shown side by side in the event of alternative use);
- (b) the name of the owner of the receptacle;
- (c) the tare of the receptacle, including such fittings and accessories as valves, protective caps, etc.;

- 2604 (2)
(cont'd)
- (d) the date (month, year) of the initial test and of the most recent test, and the stamp of the expert who carried out the test;
 - (e) the maximum permissible mass of the contents of the receptacle in kg;
 - (f) the internal pressure (test pressure) to be applied in the hydraulic pressure test.
- 2605
- (1) (a) Ethyleneimine, inhibited, of 4° shall be packed in steel receptacles of sufficient thickness, which shall be closed by a screw-threaded bung or plug rendered leakproof both to liquid and to vapour by means of a suitable gasket. The receptacles shall initially and periodically, at least every five years, be tested at a pressure of not less than 0.3 MPa (3 bar) (gauge pressure) in accordance with marginals 2215 (1) and 2216. Each receptacle shall be secured by absorbent cushioning materials in a strong leakproof protective metal packaging. The protective packaging shall be hermetically closed and its closure shall be secured against any inadvertent opening. The mass of the contents shall not exceed 0.67 kg per litre of capacity. A package shall not weigh more than 75 kg. Packages weighing more than 30 kg, other than those forwarded as a full load, shall be fitted with means of handling.
 - (b) Ethyleneimine, inhibited, of 4° may also be packed in steel receptacles of sufficient thickness, which shall be closed by a screw-threaded bung and a screw-threaded protective cap or equivalent device leakproof both to liquid and to vapour. The receptacles shall initially and periodically, at least every five years, be tested at a pressure of at least 1 MPa (10 bar) (gauge pressure) in accordance with marginals 2215 (1) and 2216. The mass of the contents shall not exceed 0.67 kg per litre of capacity. A package shall not weigh more than 75 kg.
 - (c) Receptacles in conformity with (a) and (b) shall bear, in clearly legible and durable characters:
 - the name or mark of the manufacturer and the number of the receptacle;
 - the word "ethyleneimine";
 - the tare of the receptacle and its maximum permitted mass when filled;

2605 (1) the date (month and year) of the initial test and of the
(cont'd) most recent test undergone;

the stamp of the expert who carried out the tests and examinations.

(2) Methyl isocyanate of 5° shall be packed:

- (a) in hermetically closed receptacles made of pure aluminium and having a capacity not exceeding one litre, which shall not be filled beyond 90% of their capacity.
The receptacles shall be secured, not more than 10 to a box, with appropriate cushioning material in a wooden box. Packages of this kind shall satisfy the test requirements for combination packagings conforming to marginal 3538 for packing group I, and shall not weigh more than 30 kg; or
- (b) in receptacles made of pure aluminium having a wall thickness of not less than 5 mm or in receptacles of stainless steel. The receptacles shall be fully welded and shall initially and periodically, at least every five years, be tested at a pressure of at least 0.5 MPa (5 bar) (gauge pressure) in accordance with marginals 2215 (1) and 2216. They shall be so closed as to be leakproof by means of two closures one above the other, one of which shall be screw-threaded or secured in an equally effective manner.

The degree of filling shall be not more than 90%.

Drums weighing more than 100 kg shall be fitted with rolling hoops or stiffening ribs.

- (c) Receptacles in conformity with (b) shall bear, in clearly legible and durable characters:

the name or mark of the manufacturer and the number of the receptacle;

the words "methyl isocyanate";

the tare of the receptacle and its maximum permitted mass when filled;

the date (month and year) of the initial test and of the most recent test undergone;

the stamp of the expert who carried out the tests and examinations.

- 2606 (1) Substances classified under (a) of the various items shall be packed:
- (a) in non-removable head steel drums conforming to marginal 3520; or
 - (b) in non-removable head aluminium drums conforming to marginal 3521; or
 - (c) in non-removable head steel jerricans conforming to marginal 3522; or
 - (d) in non-removable head plastics drums of a capacity not exceeding 60 litres or non-removable head plastics jerricans conforming to marginal 3526; or
 - (e) in composite packagings (plastics material) conforming to marginal 3537; or
 - (f) in combination packagings with inner packaging of glass, plastics or metal conforming to marginal 3538.
- (2) Solid substances within the meaning of marginal 2600 (13) may also be packed:
- (a) in removable head drums conforming to marginals 3520 for steel, 3521 for aluminium, 3523 for plywood, 3525 for fibreboard, or 3526 for plastics material, or in removable head jerricans conforming to marginals 3522 for steel or 3526 for plastics material, if necessary with one or more sift-proof inner bags; or
 - (b) in combination packagings conforming to marginal 3538, with one or more sift-proof inner bags.
- (3) Sodium cyanide of 41° (a) may also be packed in metal IBCs conforming to marginal 3622 or in wooden IBCs with a sift-proof inner liner conforming to marginal 3627, provided it is carried as a full load.
- 2607 (1) Substances classified under (b) of the various items shall be packed:
- (a) in steel drums conforming to marginal 3520; or
 - (b) in aluminium drums conforming to marginal 3521; or
 - (c) in steel jerricans conforming to marginal 3522; or
 - (d) in plastics drums or plastics jerricans conforming to marginal 3526; or

2607 (1) (e) in composite packagings (plastics material) conforming to marginal 3537; or

(cont'd)

(f) in combination packagings conforming to marginal 3538.

NOTE to (a), (b), (c) and (d): Simplified conditions are applicable to removable-head drums and jerricans for viscous substances having a viscosity of more than 200 mm²/s at 23 °C and for solids (see marginals 3512, 3553, 3554 and 3560).

(2) Substances classified under (b) of the various items which have a vapour pressure at 50 °C of not more than 110 kPa (1.10 bar) may also be packed in metal IBCs conforming to marginal 3622 or in rigid plastics IBCs conforming to marginal 3624 or in composite IBCs with rigid plastics inner receptacle conforming to marginal 3625.

(3) Substances classified under 15(b) may also be packed in composite packagings (glass, porcelain or stoneware) conforming to marginal 3539.

(4) Solid substances within the meaning of marginal 2600 (13) may also be packed:

(a) in removable-head drums conforming to marginal 3523 for plywood or 3525 for fibreboard, if necessary with one or more sift-proof inner bags; or

(b) in water-resistant bags conforming to marginals 3533 for textile material, 3534 for woven plastics material, 3535 for plastics film or 3536 for water-resistant paper, provided the goods are carried as a full load or the bags secured on pallets; or

(c) in composite IBCs with flexible plastics inner receptacle conforming to marginal 3625, fibreboard IBCs conforming to marginal 3626 or wooden IBCs conforming to marginal 3627; or

(d) in flexible IBCs conforming to marginal 3623, with the exception of IBCs of types 13H1, 13L1, 13M1, provided that the goods are carried as a full load or the flexible IBCs are loaded on pallets.

2608 (1) Substances classified under (c) of the various items shall be packed:

(a) in steel drums conforming to marginal 3520; or

(b) in aluminium drums conforming to marginal 3521; or

(c) in steel jerricans conforming to marginal 3522; or

- 2608 (cont'd)
- (d) in plastics drums or plastics jerricans conforming to marginal 3526; or
 - (e) in composite packagings (plastics material) conforming to marginal 3537; or
 - (f) in combination packagings conforming to marginal 3538; or
 - (g) in composite packagings (glass, porcelain or stoneware) conforming to marginal 3539; or
 - (h) in light gauge metal packagings conforming to marginal 3540.

NOTE to (a), (b), (c), (d), and (h): Simplified conditions are applicable to removable-head drums, jerricans and light gauge metal packagings for viscous substances having a viscosity of more than 200 mm²/s at 23 °C and for solids (see marginals 3512, 3552 to 3554 and 3560).

(2) Substances classified under (c) of the various items which have a vapour pressure at 50 °C of not more than 110 kPa (1.10 bar) may also be packed in metal IBCs conforming to marginal 3622, in rigid plastics IBCs conforming to marginal 3624 or in composite IBCs with rigid plastics inner receptacle conforming to marginal 3625.

(3) Solid substances within the meaning of marginal 2600 (13) may also be packed:

- (a) in movable-head drums conforming to marginal 3523 for plywood, or 3525 for fibreboard, if necessary with one or more sift-proof inner bags; or
- (b) in water-resistant bags conforming to marginals 3533 for textile material, 3534 for woven plastics material, 3535 for plastics film or 3536 for water-resistant paper; or
- (c) in flexible IBCs conforming to marginal 3623 with the exception of IBCs of types 13H1, 13L1 and 13M1, in composite IBCs with flexible plastics inner receptacle conforming to marginal 3625, in fibreboard IBCs conforming to marginal 3626 or in wooden IBCs conforming to marginal 3627.

2609-
2610

2611 3. Mixed packing

- (1) Substances covered by the same item number may be packed together in a combination packaging conforming to marginal 3538.
- (2) Substances of different items of Class 6.1 in quantities not exceeding, per inner packaging, 3 litres for liquids and/or 5 kg for solids, may be packed together and/or with goods not subject to the provisions of ADR, in a combination packaging conforming to marginal 3538, provided they do not react dangerously with one another.
- (3) Substances of 1°, 3°, 4° and 5° shall not be packed with other goods.
- (4) Substances of 2° and substances classified under (a) of the various items shall not be packed together with substances and articles of classes 1 and 5.2 and material of class 7.
- (5) Except as otherwise specially provided, substances of 2° and liquid substances classified under (a) of the various items of marginal 2601, in quantities not exceeding 0.5 litre per inner packaging and 1 litre per package, and substances classified under (b) and (c) of the various items, in quantities not exceeding, per inner packaging, 3 litres for liquids and/or 5 kg for solids, may be packed together in a combination packaging conforming to marginal 3538, with substances or articles of other classes, provided that mixed packing is also permitted for the substances of these classes, and/or with goods which are not subject to the provisions of ADR, provided they do not react dangerously with one another.
- (6) The following are considered dangerous reactions:
- (a) combustion and/or giving off considerable heat;
 - (b) emission of flammable and/or toxic gases;
 - (c) formation of corrosive liquids;
 - (d) formation of unstable substances.
- (7) The mixed packing of acid substances with basic substances in a package shall not be permitted if the two substances are packed in fragile receptacles.
- (8) The provisions of marginals 2001 (7), 2002 (6) and (7) and 2602 shall be complied with.
- (9) If wooden or fibreboard boxes are used, a package shall not weigh more than 100 kg.

4. Marking and danger labels on packages (See Appendix A.9)

Marking

- 2612 (1) Each package shall be clearly and durably marked with the identification number of the goods to be entered in the transport document, preceded by the letters "UN".

Danger labels

- (2) Packages containing substances or articles of this Class shall bear a label conforming to model No. 6.1.

- (3) Packages containing substances of 1° to 6°, 7°(a)2., 8°, 9°, 11°, 13°, 16°, 18°, 20°, 22° or 26°(a)1. or (b)1. shall, in addition, bear a label conforming to model No. 3.

- (4) Packages containing flammable pesticides of 71° to 87° having a flashpoint of 23 °C or above shall, in addition, bear a label conforming to model No. 3.

- (5) Packages containing substances of 7°(a)1., 10° or 28° shall, in addition, bear labels conforming to models Nos. 3 and 8.

- (6) Packages containing substances of 26°(a)2. or (b)2. or 54°(b)1. shall, in addition, bear labels conforming to model Nos. 4.1.

- (7) Packages containing substances of 66° shall, in addition, bear a label conforming to model No. 4.2.

- (8) Packages containing substances of 44° shall, in addition, bear a label conforming to model No. 4.3.

- (9) Packages containing substances of 68° shall, in addition, bear a label conforming to model No. 05.

- (10) Packages containing substances of 24°(b)2., 27° or 67° shall, in addition, bear a label conforming to model No. 8.

- (11) Packages containing fragile receptacles not visible from the outside shall, in addition, bear on two opposite sides a label conforming to model No. 12.

- (12) Packages containing liquids in receptacles the closures of which are not visible from the outside, packages containing receptacles with vents, and receptacles with vents but without outer packaging, shall, in addition, bear on two opposite sides a label conforming to model No. 11.

2613

B. Particulars in the transport document

2614 The description of the goods in the transport document shall conform to one of the substance identification numbers and one of the names underlined in marginal 2601.

If the substance is not mentioned by name but is assigned to an n.o.s. entry, or to another collective entry the description of the goods shall consist of the identification number, the n.o.s. designation or the collective entry designation, followed by the chemical or technical name. 2/

The description of the goods shall be followed by particulars of the class, the item number, the letter, if applicable, and the initials "ADR" (or "RID") e.g. "6.1, 11⁺(a), ADR".

For the carriage of wastes (see marginal 2000 (5)), the description of the goods shall be: "Waste containing ...", the component(s) used for the classification of the waste under marginal 2002 (8) to be entered under its/their chemical name(s), e.g. "Waste, containing 2570 cadmium compounds, 6.1, 61⁺(c) ADR".

For the carriage of solutions and mixtures (such as preparations and wastes) containing several components subject to the provisions of ADR, it will not in general be necessary to refer to more than two components which most predominantly contribute to the danger or dangers of the solutions and mixtures.

For the carriage of solutions and mixtures containing only one component subject to the provisions of ADR, the words "solution" or "mixture" should be added as part of the name in the transport document (see marginal 2002 (8)).

When a solid substance is handed over for carriage in the molten state, the description of the goods shall be completed by the word "molten", unless it is already included in the name.

If a solution or mixture containing a named substance in accordance with marginal 2600 (5), is not subject to the conditions of this Class the consignor may enter in the transport document "Not goods of Class 6.1".

2/ The technical name shall be a name currently used in scientific and technical handbooks, journals and texts. Trade names shall not be used for this purpose. In the case of pesticides, the name to be entered should be that given in ISO Standard 1750:1981 if listed.

2615-
2621

C. Empty packagings

- 2622 (1) If the empty packagings, uncleaned, of 91° are bags or flexible IBCs, these shall be placed in boxes or waterproof bags to prevent any leakage of substance.
- (2) Other empty packagings, including uncleaned empty IBCs of 91° shall be closed in the same manner and with the same degree of leakproofness as if they were full.
- (3) Empty packagings, including uncleaned empty IBCs of 91° shall bear the same danger labels as if they were full.
- (4) The description in the transport document shall conform to one of the names underlined in 91°, e.g.: "Empty packaging, 6.1, 91° ADR".

In the case of empty tank-vehicles, empty demountable tanks, empty tank-containers as well as empty vehicles for carriage in bulk and empty bulk containers, uncleaned, this description shall be completed by adding the words "Last load" together with the name and item of the goods last loaded, e.g.: "Last load: 2312 phenol, molten, 24° (b)".

2623-
2624

D. Transitional measures

- 2625 Substances of class 6.1 may be carried until 30 June 1995 in accordance with the requirements for Class 6.1 applicable until 31 December 1994. The transport document shall, in such cases, bear the inscription "Carriage in accordance with the ADR in force before 1 January 1995".

2626-
2649

CLASS 6.2 - INFECTIOUS SUBSTANCES

1. List of substances

2650 (1) Among the substances 1/ covered by the title of Class 6.2, those which are listed in marginal 2651 or are covered by a collective heading of that marginal are subject to the conditions set out in marginal 2650 (2) to marginal 2675 and the provisions of this Annex and of Annex B. They are then considered as substances of ADR.

(2) Class 6.2 comprises substances containing viable micro-organisms, including bacteria, viruses, rickettsia, parasites, fungi, also as recombinant, hybrid or mutant micro-organisms, that are known or reasonably believed to cause disease in animals or humans. They are subject to the provisions of this Class if they are capable of spreading diseases to humans or animals when exposure to them occurs.

NOTE 1: Genetically modified micro-organisms and organisms, biological products, diagnostic specimens and infected live animals shall be assigned to this Class if they meet the conditions for this Class.

NOTE 2: Toxic toxins from plant, animal or bacterial sources which do not contain any infectious substances or organisms or which are not contained in them are substances of Class 6.1 (see marginal 2601, 90°, identification number 3172).

(3) Substances of Class 6.2 are subdivided as follows:

- A: infectious substances with a high risk potential
- B: other infectious substances
- C: empty packagings.

The substances of marginal 2651, 3° and 4°, are assigned to the group designated by the letter (b) on the basis of their degree of danger:

- (b) dangerous substances.

1/ For the purposes of this Class, viruses, micro-organisms and organisms as well as articles contaminated with these shall be considered as substances of this Class.

- 2650 (4) The assignment of substances which are not listed by name
(cont'd) to 1^o, 2^o and 3^o of marginal 2651, shall be made, on the basis of current scientific knowledge, in accordance with the following risk groups 2/:
- (i) Risk group IV (high individual risk, high community risk) covers micro-organisms that can cause severe human or animal disease, which may present a high risk of spreading, and for which there is usually no effective prophylaxis or treatment available;
 - (ii) Risk group III (high individual risk, low community risk) covers micro-organisms that can cause severe human or animal disease and may present a high risk of spreading, but for which there is usually effective prophylaxis or treatment available;
 - (iii) Risk group II (moderate individual risk, limited community risk) covers micro-organisms that can cause human or animal disease, which are unlikely to spread, and for which there is usually effective prophylaxis or treatment available;
 - (iv) Risk group I (low individual and community risk) covers micro-organisms that are unlikely to cause human or animal disease.

NOTE 1: Micro-organisms of risk group I are not infectious substances within the meaning of this Class.

NOTE 2: Genetically modified micro-organisms and organisms 3/ are micro-organisms and organisms in which the genetic material has been deliberately altered by technical methods or by means that cannot occur naturally in nature.

NOTE 3: Genetically modified micro-organisms which are infectious within the meaning of this Class, are substances of 1^o, 2^o or 3^o. They may not however be assigned to 4^o. Genetically modified micro-organisms which are not infectious substances within the meaning of this Class, may be substances of Class 9 (see marginal 2901, 13^o, identification number 3245).

2/ See the World Health Organization's (WHO) "Laboratory Biosafety Manual", 1983 Edition, and Directive 90/679/EEC (Official Journal of the European Communities, No. L 374 of 31 December 1990, p. 1); they are not interchangeable with the packing groups in accordance with, e.g. Appendix A.5.

3/ See also Directive 90/219/EEC, Official Journal of the European Communities No. L 117 of 8 May 1990, page 1.

2650 NOTE 4: Genetically modified organisms, which are known or
(cont'd) suspected to be dangerous to humans, animals or the environment,
shall be carried in accordance with conditions specified by the
competent authority of the country of origin.

(5) Substances and mixtures of substances of this Class shall be considered as solids for the packaging provisions of marginals 2654 and 2655 as long as they do not contain free liquid at a temperature of less than 45 °C.

(6) "Biological products" are:

- finished biological preparations for human or veterinary use manufactured in accordance with the requirements of national public health authorities and moving under special approval or licence from such authorities, if required; or
- biological products transported prior to licensing for research or development purposes; or
- finished preparations for use in the experimental treatment of humans or animals and manufactured in accordance with the requirements of national public health authorities.

They also cover unfinished biological products prepared in accordance with procedures of specialized government agencies.

Diagnostic specimens are any human or animal material including, but not limited to, excreta, secretions, blood and its components, tissue and tissue fluids being transported for purposes of diagnosis or research, but excluding live infected animals.

NOTE: "Biological products" and "diagnostic specimens" are not considered as substances of this Class if they are known not to contain infectious substances.

(7) Live vertebrate or invertebrate animals shall not be used to carry an infectious agent unless the agent cannot be carried by any other means. Such animals shall be packed, marked, indicated, and carried in accordance with the relevant regulations governing the carriage of animals. 4/

(8) For the carriage of substances of this Class, the maintenance of a specified temperature may be necessary.

4/ Such regulations are contained in, e.g., Directive 91/628/EEC (Official Journal of the European Communities No. L 340 of 11 December 1992, p. 17) and in the Recommendations of the Council of Europe (Ministerial Committee) on the carriage of certain animal species.

2651 A. Infectious substances with high risk potential

- 1° 2814 Infectious substance, affecting humans,
2900 Infectious substance, affecting animals only.

NOTE 1: Substances which, in accordance with marginal 2650 (4), are assigned to risk group IV, shall be assigned to this item.

NOTE 2: Special conditions of packing are applicable to these substances (see marginals 2653 and 2654).

- 2° 2814 Infectious substance, affecting humans,
2900 Infectious substance, affecting animals only.

NOTE 1: Substances which, in accordance with marginal 2650 (4), are assigned to risk group III, shall be assigned to this item.

NOTE 2: Special conditions of packing are applicable to these substances (see marginals 2653 and 2654).

B. Other infectious substances

- 3° (b) 2814 Infectious substance, affecting humans,
2900 Infectious substance, affecting animals only.

NOTE: Substances which, in accordance with marginal 2650 (4), are assigned to risk group II, shall be assigned to this item.

- 4° (b) 3291 Clinical waste, unspecified, n.o.s.

NOTE 1: Unspecified wastes resulting from medical/veterinary treatment of humans/animals or from biological research, and which are unlikely to contain substances of this Class shall be assigned to this item.

NOTE 2: Specified wastes shall be assigned to 1°, 2° or 3°.

NOTE 3: Decontaminated clinical wastes or wastes resulting from biological research which previously contained infectious substances are not subject to the provisions of this Class.

C. Empty packagings

- 11° Uncleaned empty packagings, including empty intermediate bulk containers (IBC), empty tank vehicles, empty demountable tanks and empty tank-containers, uncleaned, which have contained substances of Class 6.2 (see marginal 2672).

2. Provisions

A. Packages

2652 1. General conditions of packing

(1) Packagings shall satisfy the conditions of Appendix A.5, unless special conditions for the packing of certain substances are prescribed in marginals 2653 and 2656.

Intermediate bulk containers (IBCs) shall satisfy the conditions of Appendix A.6.

(2) In accordance with the provisions of marginals 2650 (3) and 3511 (2) or 3611 (2), the following shall be used:

packagings of packing group II or I, marked with the letter "Y" or "X", or IBCs of packing group II, marked with the letter "Y" for dangerous substances classified under the letter (b) of each item;

NOTE: For the carriage of substances of Class 6.2 in tank-vehicles, demountable tanks or tank-containers see Annex B.

2. Special conditions for packing of certain substances

2653 (1) Packagings for substances of 1^o and 2^o shall include the following essential elements:

(a) An inner packaging comprising:

a leakproof primary receptacle;

a leakproof secondary packaging;

absorbent material placed between the primary receptacle and the secondary packaging: if several primary receptacles are placed in a single secondary packaging, they shall be individually wrapped so as to prevent contact between them. The absorbent material, such as cotton wool, shall be in sufficient quantity to absorb the entire contents of the primary receptacles.

Whatever the intended temperature of the consignment, the primary receptacle or the secondary packaging shall be capable of withstanding without leakage an internal pressure producing a pressure differential of not less than 95 kPa (0.95 bar) and temperatures in the range -40 °C to +55 °C.

NOTE: Inner packagings containing infectious substances shall not be consolidated in an outer packaging with other types of goods.

- 2653 (1) (b) An outer packaging of adequate strength for its capacity,
(cont'd) mass and intended use, and with a minimum external
dimension of 100 mm.

(2) Packagings conforming to paragraph (1) shall be tested in accordance with the provisions of marginal 2654; the packaging design type shall be one permitted by the competent authority. Every packaging manufactured in accordance with the approved design type shall be marked in accordance with marginal 3512.

Tests for packagings in accordance with marginal 2653

- 2654 (1) Other than for packagings for live animals and organisms, samples of each packaging shall be prepared for testing as described in paragraph (2) and then subjected to the tests in paragraphs (3) to (5). If the nature of the packaging makes it necessary, equivalent preparation and tests are permitted, provided that these may be demonstrated to be at least as effective.

(2) Samples of each packaging shall be prepared as for carriage, except that the substance to be carried shall be replaced by water, or, where conditioning at -18 °C is specified, by a mixture water/antifreeze. Each primary receptacle shall be filled to 98% capacity.

(3) Packagings prepared as for carriage shall be subjected to the tests in the table, which, for test purposes, categorizes packagings according to their material characteristics. For outer packagings, the headings in the table relate to:

fibreboard or similar materials whose performance may be rapidly affected by moisture;

plastics which may embrittle at low temperature; and

other materials such as metal whose performance is not affected by moisture or temperature.

If a primary receptacle and a secondary packaging (see marginal 2653 (1) (a)) are made of different materials, the material of the primary receptacle determines the appropriate test. In instances where a primary receptacle is made of two materials, the material most liable to damage shall determine the appropriate tests.

2654 (3)
(cont'd)

Table

Material of					Tests required				
Outer packaging			Inner packaging		In accordance with (3), letter				In accordance with (4)
Fibre-board	Plastics	Other	Plastics	Other	(a)	(b)	(c)	(d)	
x			x			x	x	When dry ice is used	x
x				x		x			x
	x		x				x		x
	x			x			x		x
		x	x				x		x
		x		x	x				x

(a) Samples shall be subjected to free-fall drops on to a rigid, non-resilient, flat, horizontal surface from a height of 9 m. Where the samples are in the shape of a box five shall be dropped in sequence:

- one flat on to the bottom,
- one flat on to the top,
- one flat on to the long side,
- one flat on to the short side,
- one on to a corner.

Where the samples are in the shape of a drum, three shall be dropped in sequence:

- one diagonally on to the top chime, with the centre of gravity directly above the point of impact,
- one diagonally on to the base chime,
- one flat on to the side.

Following the appropriate drop sequence, there shall be no leakage from the primary receptacle(s) which shall remain protected by absorbent material in the secondary packaging.

(b) The samples shall be fully immersed in water for a period of at least 5 minutes and then allowed to drain for not more than 30 minutes at 23 °C and 50 ± 2% relative humidity. It shall then be subjected to the test described in (a).

2654 (3) (c) The samples shall be conditioned in an atmosphere of -18 °C or less for a period of at least 24 hours and within 15 minutes of removal from that atmosphere be subjected to the test described in (a). Where the samples contains dry ice, the conditioning period may be reduced to four hours.

(d) Where the packaging is intended to contain dry ice, a test additional to that specified in (a) or (b) or (c) shall be carried out. One sample shall be stored so that all the dry ice dissipates and then be subjected to the test described in (a).

(4) Packagings with a gross mass of 7 kg or less shall be subjected to the tests described in (a) below and packagings with a gross mass exceeding 7 kg to the tests in (b) below.

(a) Samples shall be placed on a level hard surface. A cylindrical steel rod with a mass of at least 7 kg, and a diameter not exceeding 38 mm, and whose impact end edges have a radius not exceeding 6 mm, shall be dropped in a vertical free fall from a height of 1 m, measured from the impact end to the impact surface of the sample. One sample shall be placed on its base. A second sample shall be placed in an orientation perpendicular to that used for the first. In each instance, the steel rod shall be aimed to impact the primary receptacle. Following each impact, penetration of the secondary packaging is acceptable, provided that there is no leakage from the primary receptacle(s).

(b) Samples shall be dropped on to the end of a cylindrical steel rod. The rod shall be set vertically in a level hard surface. It shall have a diameter of 38 mm and the edges of the upper end a radius not exceeding 6 mm. The rod shall protrude from the surface a distance at least equal to that between the primary receptacle(s) and the outer surface of the outer packaging with a minimum of 200 mm. One sample shall be dropped in a vertical freefall from a height of 1 m, measured from the top of the steel rod. A second sample shall be dropped from the same height in an orientation perpendicular to that used for the first. In each instance, the packaging shall be so orientated that the steel rod would penetrate the primary receptacle(s). Following each impact, penetration of the secondary packaging is acceptable, provided that there is no leakage from the primary receptacle(s).

2654 (5) As long as an equivalent level of performance is maintained, the following variations in the primary receptacles placed within the secondary packaging are allowed without the need for further testing of the completed packaging:

Primary receptacles of equivalent or smaller size as compared to the tested primary receptacles may be used provided:

- (a) the primary receptacles are of similar design to the primary receptacle tested (e.g. rounded, rectangular);
- (b) the material of construction of the primary receptacles (e.g. glass, plastics, metal) has a resistance to impact and stacking pressure equivalent to or better than that of the primary receptacles initially tested;
- (c) primary receptacles have the same or smaller openings and the closure is of equivalent design (e.g. screw-threaded plug, bung);
- (d) sufficient additional cushioning material is used to fill up empty space and to prevent significant movement of the primary receptacles; and
- (e) primary receptacles are oriented within the secondary packagings in the same manner as in the tested package.

2655 (1) Substances classified under 3° (b) and 4° (b) shall be packed in:

- (a) steel drums conforming to marginal 3520; or
- (b) aluminium drums conforming to marginal 3521; or
- (c) steel jerricans conforming to marginal 3522; or
- (d) plastics drums or jerricans conforming to marginal 3526; or
- (e) composite packagings (plastics material) conforming to marginal 3537; or
- (f) combination packagings conforming to marginal 3538; or
- (g) composite packagings (glass, porcelain or stoneware) conforming to marginal 3539; or

- 2655 (cont'd)
- (h) metal IBCs conforming to marginal 3622; or
 - (i) rigid plastics IBCs conforming to marginal 3624; or
 - (j) reserved)
 - (k) composite IBCs with plastics inner receptacles conforming to marginal 3625, with the exception of IBCs of types 11HZ2 and 31HZ2.
- (2) Solid substances within the meaning of marginal 2650(5) may also be packed in plywood drums conforming to marginal 3523 or in fibre drums conforming to marginal 3525, if necessary with one or more leakproof inner bags.
- 2656 Biological products and diagnostic specimens of 1° to 3° where a relatively low probability exists that infectious substances are present e.g. for routine screening tests or initial diagnosis, must meet all the provisions of this class except where the following conditions are met:
- (1) The primary receptacles do not contain more than 50 ml for biological products, 100 ml for diagnostic specimens;
 - (2) The outer packaging does not contain more than:
 - 50 ml for biological products when fragile primary receptacles are used;
 - 100 ml for biological products when other than fragile primary receptacles are used;
 - 500 ml for diagnostic specimens.
 - (3) The primary receptacles are leakproof; and
 - (4) The packaging is in accordance with the provisions of this class; however it need not be subjected to the tests.
- 2657 When substances of this Class are carried in deeply refrigerated liquid nitrogen, the inner packagings shall conform to the provisions for this Class and the containers for the nitrogen shall conform to the provisions of Class 2.
- 2658 (1) The openings of primary receptacles for liquids of 1° and 2° shall be closed so as to be leakproof by means of two devices placed in series, one of which shall be screw-threaded or secured in an equivalent manner.

- 2658 (cont'd) (2) Receptacles for substances of 3° and 4° which evolve gases and which are carried at ambient temperature of more than 15 °C shall be fitted with a specific pathogen-tight vent in the lid, which shall be protected against external mechanical stresses.

With reusable receptacles, the filter of the vent shall be replaced before refilling.

(3) Plastics or fibreboard packagings intended for the carriage of wastes of 4° shall be resistant and if the wastes contain sharp objects, shall be impenetrable to such objects.

(4) The closure of packagings for substances of 4° shall be so constructed that they are hermetically closed after filling and so designed that any subsequent opening is immediately evident.

2659-
2660

3. Mixed packing

- 2661 (1) Substances covered by the same item number may be packed together in a combination packaging conforming to marginal 3538.
- (2) Substances of 1°, 2° and 3° may be packed together in a combination packaging conforming to marginal 3538, if the package is tested and approved in accordance with the provisions for substances of 1° and 2°.
- (3) Substances of Class 6.2 shall not be packed together with substances and articles of other classes, nor with goods not subject to the provisions of ADR. This does not apply to biological products and diagnostic specimens which are packed in accordance with marginal 2656 or to substances being carried as coolants, e.g. ice, dry ice or deeply refrigerated liquid nitrogen.
- (4) The provisions of marginals 2001(7), 2002(6) and (7) and 2652 shall be observed.
- (5) If wooden or fibreboard boxes are used, a package shall not weigh more than 100 kg.

4. Marking and danger labels on packages (See Appendix A.9)

Marking

- 2662 (1) Each package shall be clearly and durably marked with the identification number of the goods to be entered in the transport document, preceded by the letters "UN".

Danger labels

(2) Packages containing substances of this Class shall bear a label conforming to model No. 6.2.

(3) Packages containing substances of this Class carried in deeply refrigerated liquid nitrogen shall, in addition, bear a label conforming to model No. 2.

(4) Packages containing substances of 3^{*} and 4^{*} in fragile receptacles which are not visible from the outside shall, in addition, bear on two opposite sides a label conforming to model No. 12.

(5) Packages containing liquid substances of 3^{*} in receptacles the closures of which are not visible from the outside, as well as packages containing vented receptacles and vented receptacles without outer packaging, shall, in addition, bear on two opposite sides a label conforming to model No. 11.

2663

B. Particulars in the transport document

- 2664 The description of the goods in the transport document shall conform to one of the identification numbers and names underlined in marginal 2651, followed by the biological name of the substance 5/ for substances of 1^{*} to 3^{*}.

(1) If the infectious substance is a genetically modified substance, the words "~~genetically modified micro-organisms~~" shall be added.

(2) For biological products and diagnostic specimens which are offered for transport under the conditions of marginal 2656, the description of the goods shall be: "Biological product/diagnostic specimen, containing ..." the infectious substance determining the classification under 1^{*}, 2^{*} or 3^{*} to be entered.

5/ The biological name given shall normally be that used in reference books, regularly appearing publications and scientific and technical texts. Trade names shall not be used for this purpose.

- 2664 (2) The description of the goods shall be followed by the
(cont'd) particulars of the Class, the item number, together with
the letter, if any, in the list of substances and the initials "ADR"
(or "RID"), e.g. 6.2, 3^{*} (b) ADR.

For the carriage of wastes [see marginal 2002(8)] the description of the goods shall be: "Waste, containing ...", the component(s) determining the classification of the waste under marginal 2002(8) to be entered under its/their chemical or biological name(s), e.g.: "Waste, containing 2814. Infectious substance, affecting humans, Marburg virus, 6.2, 2^{*} ADR".

For the carriage of solutions or mixtures (such as preparations and wastes) containing two or more components subject to ADR, in general not more than the two components which most predominantly contribute to the danger(s) of the solutions or mixtures need be shown. For wastes of 4^{*}, the description underlined is sufficient: "3291 Clinical Waste, unspecified, n.o.s. 6.2, 4^{*} (b), ADR".

For the carriage of easily perishable substances, appropriate information shall be provided, e.g.: "Cool at +2/+4 °C" or "carry in frozen state" or "do not freeze".

2665-
2671

C. Empty packagings

- 2672 (1) Empty packagings, including empty IBCs, uncleaned, of 11^{*} shall be closed in the same manner and with the same degree of leakproofness as if they were full.
- (2) Empty packagings, including empty IBCs, uncleaned, of 11^{*} shall bear the same danger labels as if they were full.
- (3) The description in the transport document shall conform to one of the descriptions underlined under 11^{*}, e.g. "Empty packagings, 6.2, 11^{*}, ADR". In the case of empty tank-vehicles, empty demountable tanks, empty tank-containers and empty small containers, uncleaned, this description shall be completed by adding the words "Last load", together with the name and item number of the goods last loaded, e.g.: "Last load: 2900 Infectious substance, affecting animals, 3^{*} (b)".

2673

D. Other provisions

- 2674 Other provisions for substances of this Class which are enacted for reasons other than those of safety, are not affected (e.g. those concerning import and export, marketing or distribution, protection at work, veterinary purposes).

E. Transitional provisions

2675 Substances of Class 6.2 may be carried until 31 December 1995 in accordance with the provisions applicable for Class 6.2 until 31 December 1994. In such cases, the transport document shall bear the inscription: "Carriage in accordance with the ADR in force before 1 January 1995".

**2676-
2699"**

CLASS 7. RADIOACTIVE MATERIAL

2700 (1) Footnote 1/, Amend as follows:

1/ The provisions of Class 7 are based on the following principles and provisions of the International Atomic Energy Agency (IAEA).

"Regulations for the Safe Transport of Radioactive Material, Safety Series No. 6, 1985 Edition, (As Amended 1990) which also includes the general principles for Radiation Protection.

Explanations and further information about these regulations can be found in the following documents:

1. IAEA 'Advisory Material for the IAEA Regulations for The Safe Transport of Radioactive Materials' (1985 Edition) Safety Series No. 37, Third Edition (As Amended 1990).
2. IAEA 'Explanatory Material for the IAEA Regulations for the Safe Transport of Radioactive Materials' (1985 Edition) Safety Series No. 7, Second Edition (As Amended 1990).
3. IAEA 'Basic Safety Standards for Radiation Protection' Safety Series No. 9, 1982 Edition.
4. IAEA 'Emergency Response Planning and Preparedness for Transport Accidents Involving Radioactive Material' Safety Series No. 87, 1988 Edition.
5. IAEA 'Schedule of Requirements for the Transport of Specified Types of Material Radioactive Consignments' Safety Series No. 80 (As Amended 1990)."

- 2700 (2)
2. In the second line after "uranium-238", amend "." to ":" and after "thorium-232", amend "." to ":".
 7. In the last line delete "transport and".
 9. In the second line after "of a", insert the word "large".

- 2700 (cont'd)
14. Under the title "Package", insert as follows:
- "Package shall mean the packaging with its radioactive contents as presented for transport. Package and packaging performance standards, in terms of retention of integrity of containment and shielding, depend upon the quantity and nature of the radioactive material transported."
- 14.(b) (I) After the words "(see marginal 3732)" add the sentence "and, in addition, for the specific design provision (see marginal 3733)".
17. In the last line amend "(or millirem)" to "(millirem)".
- 2702
3. In the title amend "Package Maximum Radiation Level" to "Maximum Radiation Level".
- In the second line after "(0.5 mrem/h) at", insert the sentence "any point on".
4. In the second line after "wagons/vehicles", insert the words "containers, tanks".
- 5.(a) (English only)
Change "(10-6 $\mu\text{Ci}/\text{cm}^2$)" to "(10⁻⁶ $\mu\text{Ci}/\text{cm}^2$)".
- 5.(b)(English only)
Align the word "(b)" with word "(a)".
- 2703
3. Delete "Package" in the title.
- 3.(a) (i) Change "at the surface of the package, and" to "at any point on any external surface, and".
- 3.(b) (English only)
In the second line after "2 mSv/h", insert "(200 mrem/h)".
- 3.(b) (i) Change "there is" to "the wagon/vehicle is equipped with".

2703
(cont'd)

4. In the third line after "wagons/vehicles", insert "containers, tanks".
- 4.(a) and (b) Insert "also" after "which".
5. In the second line after "contaminated", insert the sentence "above the limits in paragraph 4, or which show a surface radiation level in excess of 5 μ Sv/h (0.5 mrem/h)".
- 7.(a) Change to: "... conforming to models Nos. 1, 1.4, 1.5, 1.6 or 01".
- 8.(a) (iv) (English only)
Align "fissile, containing more)" in the UN number 2977.
- 8.(a) (vi) Becomes (vii).

Insert a new (vi) as follows: "Each package except tank containers and overpacks shall be clearly and durably marked with the identification number of the goods to be entered in the transport document, preceded by the letters 'UN'".

- 8.(b) (iii) Delete "with a capacity of more than 3,000 litres" and insert "as well as vehicles and containers for carriage in bulk".

2704

Schedules 1 to 13
Item 3, delete "Package" in the title.

Schedule 1, 8.(a) (ii): (English only)
Replace "radioactive" with "Radioactive".

Schedule 1, 8.(a) (i): Amend as follows:

"Marking: see marginal 2702.
Labelling: No provisions."

Schedule 2, 8.(b)
Replace "No provisions" with "See marginal 2702".

Schedule 3, 8.(a)
Replace "No provisions" with "See marginal 2702".

2704 Schedule 4, 8.(a) (i): Amend as follows:

(cont'd)

"Marking: see marginal 2702.

Labelling: No provisions."

Schedule 6, 2.(c): Table 4 (English only)

Replace "INUDSTRIAL" with "INDUSTRIAL"

Schedule 7: (English only):

Align NOTE 1, NOTE 2, NOTE 3 as in Schedule 6.

Schedule 9, 2.(b)

In the third line after "loss of shielding", insert "integrity".

Schedule 9, 10.(b) (ii): (English only)

In the third line replace the UN number "2892" with "2982".

Schedule 10, NOTE 1

In the third line after "lose its shielding", insert "integrity".

Schedule 10: (English only)

Align NOTE 2, NOTE 3, as in Schedule 6.

Schedule 10, 2.(b) (i)

In the third line after "loss of shielding", insert "integrity".

Schedule 10, 2.(b) (ii): (English only)

In the second line replace "containment integrity and shielding" with "containment and shielding integrity".

Schedule 10, 8.(b) (iv)

Add: "shown in marginal 2705(5)" after "trefoil".

Schedule 10, 12.(b): (English only)

In the first line after "average", insert "surface".

Schedule 11, NOTE 1

In the third line after "lose its shielding", insert "integrity".

Schedule 11, 2.(a): (English only)

Align the whole subparagraph.

Schedule 11, 2.(b) (ii): (English only)

In the second line replace "containment integrity and shielding" with "containment and shielding integrity".

2704 Schedule 11, 8.(b) (iv)

(cont'd) Add: "shown in marginal 2705(5)" after "trefoil".

Schedule 11, 12.(c)

In the second and third line change "and as far as practicable" to "for which".

Schedule 12, 2.(a) (ii)

In the first line change "Hydrogenous" to "Homogeneous hydrogenous".

Schedule 12, 2.(a) (iii)

In the last line after "arrangement", add "within the package".

Schedule 12, 6.

In the second line change "contents" to "material".

Schedule 12, 8.(b)

In the first line change "plainly" to "legibly".

Schedule 12, 8.(b) (i)

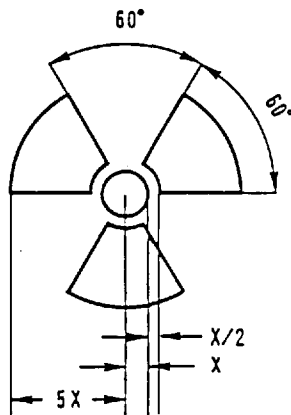
In the first line replace "Type" to "TYPE" (three times).

2705 (2) Insert a new paragraph (2) to read as follows:

"(2) Each package, except tanks, containers, overpacks and excepted packages of schedules 1 to 4, shall be clearly and durably marked with the identification number of the goods to be entered in the transport document preceded by the letters 'UN'".

Re-number paragraphs (2) to (4) as paragraphs (3) to (5).

2705 (4) (Renumbered (5)). In the last line change "in models Nos. 7A to 7D" to "below" and add the figure below:



Basic trefoil symbol with proportions based on a central circle of radius X. The minimum allowable size of X shall be 4 mm.

- 2707 In the title, insert "containers for carriage in bulk" after "Additional labelling of".
- 2709 (b) Replace the sentence "the name or symbol of each radionuclide; or the most significant radionuclide;" with "the name or symbol of each radionuclide or, for mixture of radionuclides, an appropriate general description or a list of the most restrictive nuclides;".
- (b) (i) In the last line, delete "and".

2712 (5) Table 10

Delete the references "10/" and "11/" from the Table 10.
Delete the references 10/ and 11/ below Table 10.

2713 (1) (a) (i) Change "there is" to "the vehicle is equipped with".

(1) Delete the last paragraph initiating with:
"If the exclusive use ...".

2716 (English only)

In the first column and second row change "a₁" to "A₁".

CLASS 8: Replace marginals 2800 to 2899 by the following:

"CLASS 8. CORROSIVE SUBSTANCES

1. List of substances

2800 (1) Among the substances and articles covered by the title of Class 8, those which are listed in marginal 2801 or are covered by a collective heading in that marginal are subject to the conditions set out in marginals 2800 (2) to 2822 and to the provisions of this Annex and of Annex B. They are then considered as substances and articles of ADR.

NOTE: For the quantities of substances listed in marginal 2801 which are not subject to the "provisions for this Class", either in this Annex or in Annex B, see marginal 2801a.

(2) The title of Class 8 covers substances which by chemical action attack epithelial tissue - of skin or mucous membranes - with which they are in contact, and substances which in the event of leakage are capable of damaging or destroying other goods, or means of transport, and may also cause other hazards. The title of this Class also covers other substances which form a corrosive liquid only in the presence of water, or which produce corrosive vapour or mist in the presence of natural moisture of the air.

- 2800
(cont'd)
- (3) (a) Substances and articles of Class 8 are subdivided as follows:
- A. Acid substances;
 - B. Basic substances;
 - C. Other corrosive substances;
 - D. Articles containing corrosive substances;
 - E. Empty packagings.
- (b) Substances and articles of Class 8 which are classified under the various items of marginal 2801 other than substances of 6*, 14* and 15* shall be assigned to one of the following groups designated by the letter (a), (b) or (c) according to their degree of corrosivity:
- (a): highly corrosive;
 - (b): corrosive;
 - (c): slightly corrosive.
- (c) Allocation of substances to groups (a), (b) or (c) has been on the basis of experience taking into account such additional factors as inhalation risk ^{1/} and reactivity with water (including the formation of dangerous decomposition products). The degree of corrosivity of substances not specifically named, including mixtures, can be judged by the length of time of contact necessary to produce full thickness destruction of human skin.

^{1/} A substance or preparation meeting the criteria of Class 8 having an inhalation toxicity of dusts and mists (LC₅₀) in the range of group (a), but toxicity through oral ingestion or dermal contact only in the range of group (c) or less, shall be allocated to Class 8.

2800
(cont'd)

- (c) Substances which are judged not to cause full thickness destruction of human skin shall still be considered for their potential to cause corrosion to certain metal surfaces. In making this grouping, account should be taken of human experience in instances of accidental exposure. In the absence of human experience, the grouping should be based on data obtained from animal experiments in accordance with OECD Guideline 404. ^{2/}
- (d) Substances that cause full thickness destruction of intact skin tissue within an observation period up to 60 minutes starting after the exposure time of 3 minutes or less are substances of group (a).
- (e) Substances that cause full thickness destruction of intact skin tissue within an observation period up to 14 days starting after the exposure time of more than 3 minutes but not more than 60 minutes are substances of group (b).
- (f) The following are substances of group (c):
- substances that cause full thickness destruction of intact skin tissue within an observation period up to 14 days starting after the exposure time of more than 60 minutes but not more than 4 hours;
 - substances which are judged not to cause full thickness destruction of intact skin tissue, but which exhibit a corrosion rate on steel or aluminium surfaces exceeding 6.25 mm a year at a test temperature of 55 °C. For the purposes of testing steel, type P3 (ISO 2604 (IV); 1975) or a similar type, and for testing aluminium, non-clad types 7075-T6 or AZ5GU-T6 shall be used.

^{2/} OECD Guidelines for Testing of Chemicals, No. 404 "Acute Dermal Irritation/Corrosion" (1992).

2800 (cont'd) (4) If substances of Class 8, as a result of admixtures, come into different categories of risk from those to which the substances specifically named in marginal 2801 belong, these mixtures or solutions shall be assigned to the items and groups to which they belong on the basis of their actual degree of danger.

NOTE: For the classification of solutions and mixtures (such as preparations and wastes), see also marginal 2002 (8).

(5) On the basis of the criteria set out in (3), it may also be determined whether the nature of a solution or a mixture specifically named or containing a specifically named substance is such that the solution or mixture is not subject to the provisions for this class.

(6) For the packaging requirements of marginals 2805 (2), 2806 (3) and 2807 (3), substances and mixtures of substances having a melting point above 45 °C are considered to be solids.

(7) (a) Flammable corrosive liquids having a flashpoint below 23 °C, other than substances of 54° (a) and 68° (a), are substances of Class 3 (see marginal 2301, items 21° to 26°).

(b) Flammable, slightly corrosive liquids having a flashpoint between 23 °C and 61 °C, are substances of Class 3 (see marginal 2301, 33°).

(c) Corrosive substances which are highly toxic by inhalation, as defined in marginal 2600 (3), are substances of Class 6.1 (see marginal 2601).

(8) The chemically unstable substances of Class 8 are to be accepted for carriage only if the necessary steps have been taken to prevent their dangerous decomposition or polymerization during carriage. To this end it should in particular be ensured that receptacles do not contain any substance liable to promote these reactions.

(9) 1910 calcium oxide and 2812 sodium aluminate, identification numbers assigned in the United Nations Recommendations on the Transport of Dangerous Goods, are not subject to the provisions of ADR.

2800 (cont'd) (10) The flashpoint referred to below shall be determined in the manner described in Appendix A.3.

A. Acid substances

2801 INORGANIC SUBSTANCES

1° Sulphuric acid and similar substances:

- (a) 1829 sulphur trioxide, inhibited (sulphuric anhydride, inhibited), 1831 sulphuric acid, fuming (oleum), 2240 chromosulphuric acid;
- (b) 1794 lead sulphate with more than 3% free acid, 1830 sulphuric acid with more than 51% acid, 1832 sulphuric acid, spent, 1833 sulphurous acid, 1906 sludge acid, 2308 nitrosylsulphuric acid, 2583 alkylsulphonic acids, solid with more than 5% free sulphuric acid or 2583 arylsulphonic acids, solid with more than 5% free sulphuric acid, 2584 alkylsulphonic acids, liquid with more than 5% free sulphuric acid or 2584 arylsulphonic acids, liquid with more than 5% free sulphuric acid, 2796 sulphuric acid with not more than 51% acid or 2796 battery fluid, acid, 2837 bisulphates, aqueous solution (hydrogensulphate, aqueous solution).

NOTE 1: 2585 alkylsulphonic or arylsulphonic acids, solid and 2586 alkylsulphonic or arylsulphonic acids, liquid with not more than 5% free sulphuric acid are substances of item 34°.

NOTE 2: Lead sulphate with not more than 3% free acid is not subject to the provisions of ADR.

NOTE 3: Chemically unstable mixtures of sulphuric acid, spent, are not to be accepted for carriage.

- (c) 2837 bisulphates, aqueous solution (hydrogensulphate, aqueous solution).

2801
(cont'd)

2° Nitric acids:

- (a) 1. 2031 nitric acid, other than red fuming, with more than 70% acid.
2. 2032 nitric acid, red fuming;
- (b) 2031 nitric acid, other than red fuming, with not more than 70% acid.

3° Nitrating acid mixtures:

- (a) 1796 nitrating acid mixture with more than 50% nitric acid, 1826 nitrating acid mixture, spent with more than 50% nitric acid;
- (b) 1796 nitrating acid mixture with not more than 50% nitric acid, 1826 nitrating acid mixture, spent with not more than 50% nitric acid.

NOTE 1: 1798 nitrohydrochloric acid is not to be accepted for carriage.

NOTE 2: Chemically unstable mixtures of nitrating acid or mixtures of residual sulphuric and nitric acids, not denitrated, are not to be accepted for carriage.

4° Perchloric acid solution:

- (b) 1802 perchloric acid with not more than 50% acid, by mass in aqueous solution.

NOTE 1: 1873 perchloric acid aqueous solution with more than 50% but not more than 72% pure acid, by mass are substances of Class 5.1 (see marginal 2501, item 3° (a)).

NOTE 2: Perchloric acid aqueous solution with more than 72% pure acid, by mass, or mixtures of perchloric acid with any liquid other than water, are not to be accepted for carriage.

5° Aqueous solutions of hydrogen halides, with the exception of hydrofluoric acid:

(b) 1787 hydriodic acid, 1788 hydrobromic acid, 1789 hydrochloric acid;

(c) 1787 hydriodic acid, 1788 hydrobromic acid, 1789 hydrochloric acid, 1840 zinc chloride solution, 2580 aluminium bromide solution, 2581 aluminium chloride solution, 2582 ferric chloride solution (iron trichloride solution).

NOTE: Hydrogen bromide, anhydrous and hydrogen chloride, anhydrous are substances of Class 2 [see marginal 2201, 3° (at) and 5° (at)].

6° Hydrogen fluoride and hydrofluoric acid solutions with more than 85% hydrogen fluoride:

1052 hydrogen fluoride, anhydrous, 1790 hydrofluoric acid with more than 85% hydrogen fluoride.

NOTE: Special packing provisions are applicable to these substances (see marginal 2803).

7° Solutions of hydrogen fluoride with not more than 85% hydrogen fluoride:

(a) 1786 hydrofluoric acid and sulphuric acid mixture, 1790 hydrofluoric acid with more than 60% but not more than 85% hydrogen fluoride;

(b) 1790 hydrofluoric acid with not more than 60% hydrogen fluoride, 2817 ammonium hydrogendifluoride solution (ammonium bifluoride solution);

(c) 2817 ammonium hydrogendifluoride solution (ammonium bifluoride solution).

2801
(cont'd)

8°

Fluoro-acid substances:

- (a) 1777 fluorosulphonic acid;
- (b) 1757 chromic fluoride solution, 1768 difluorophosphoric acid, anhydrous, 1775 fluoroboric acid, 1776 fluorophosphoric acid, anhydrous, 1778 fluorosilicic acid, 1782 hexafluorophosphoric acid;
- (c) 1757 chromic fluoride solution.

9°

Solid fluorides and other solid fluorinated substances which, in contact with moist air or water, emit hydrogen fluoride:

- (b) 1727 ammonium hydrogendifluoride, solid, 1756 chromic fluoride, solid, 1811 potassium hydrogendifluoride (potassium bifluoride), 2439 sodium hydrogendifluoride (sodium bifluoride), 1740 hydrogendifluorides, n.o.s.;
- (c) 1740 hydrogendifluorides, n.o.s.

NOTE: 2505 ammonium fluoride, 1812 potassium fluoride, 1690 sodium fluoride, 2674 sodium fluorosilicate and 2856 fluorosilicates, n.o.s. are substances of Class 6.1 [see marginal 2601, 63° (c), 64° (c) or 87° (c)].

10°

Liquid fluorides and other liquid fluorinated substances which, in contact with moist air or water, emit hydrogen fluoride:

- (b) 1732 antimony pentafluoride, 2851 boron trifluoride dihydrate

NOTE: 1745 bromine pentafluoride, 1746 bromine trifluoride and 2495 iodine pentafluoride are substances of Class 5.1 (see marginal 2501, 5°).

11°

Solid halides and other solid halogenated substances, with the exception of fluorine compounds, which, in contact with moist air or water, emit acid fumes:

2801
(cont'd)

- (b) 1725 aluminium bromide, anhydrous, 1726 aluminium chloride anhydrous, 1733 antimony trichloride, 1806 phosphorus pentachloride, 1939 phosphorus oxybromide, 2691 phosphorus pentabromide, 2869 titanium trichloride mixture

NOTE: Solid hydrated forms of aluminium bromide and aluminium chloride are not subject to the provisions of ADR.

- (c) 1773 ferric chloride, anhydrous (iron (III) chloride, anhydrous), 2331 zinc chloride, anhydrous, 2440 stannic chloride pentahydrate, 2475 vanadium trichloride, 2503 zirconium tetrachloride, 2508 molybdenum pentachloride, 2802 copper chloride, 2869 titanium trichloride mixture.

NOTE: Ferric chloride hexahydrate is not subject to the provisions of ADR.

- 12° Liquid halides and other liquid halogenated substances, with the exception of fluorine compounds, which, in contact with moist air or water, emit acid fumes:

- (a) 1754 chlorosulphonic acid with or without sulphur trioxide, 1758 chromium oxychloride (chromyl chloride), 1809 phosphorus trichloride, 1828 sulphur chlorides, 1834 sulphuryl chloride, 1836 thionyl chloride, 2444 vanadium tetrachloride, 2692 boron tribromide (boron bromide), 2879 selenium oxychloride;
- (b) 1730 antimony pentachloride, liquid, 1731 antimony pentachloride solution, 1792 iodine monochloride, 1808 phosphorus tribromide, 1810 phosphorus oxychloride (phosphoryl chloride), 1817 pyrosulphuryl chloride, 1818 silicon tetrachloride, 1827 stannic chloride, anhydrous, 1837 thiophosphoryl chloride, 1838 titanium tetrachloride, 2443 vanadium oxytrichloride;
- (c) 1731 antimony pentachloride solution

2801
(cont'd)

13* Solid hydrogen sulphates:

- (b) 2506 ammonium hydrogen sulphate (ammonium bisulphate), 2509 potassium hydrogen sulphate (potassium bisulphate).

14* Bromine or bromine solutions:

1744 bromine or 1744 bromine solution.

NOTE: Special packing provisions are applicable to these substances (see marginal 2804).

15* Inorganic acid substance in molten form:

2576 phosphorus oxybromide, molten.

16* Solid inorganic acid substances and mixtures of these substances (such as preparations and wastes) which cannot be classified under other collective headings:

- (a) 1905 selenic acid,
3260 corrosive solid, acidic, inorganic, n.o.s.;
- (b) 1807 phosphorus pentoxide (phosphoric acid, anhydrous), 3260 corrosive solid, acidic, inorganic, n.o.s.;
- (c) 2507 chloroplatinic acid, solid, 2578 phosphorus trioxide, 2834 phosphorous acid, 2865 hydroxylamine sulphate, 2967 sulphamic acid,
3260 corrosive solid, acidic, inorganic, n.o.s.

17* Liquid inorganic acid substances and solutions and mixtures of these substances (such as preparations and wastes) which cannot be classified under other collective headings:

- (a) 3264 corrosive liquid, acidic, inorganic, n.o.s.;
- (b) 1755 chromic acid solution,
3264 corrosive liquid, acidic, inorganic, n.o.s.;

2801
(cont'd)

- (c) 1755 chromic acid solution, 1805 phosphoric acid, 2693 bisulphites, aqueous solution, n.o.s., 3264 corrosive liquid, acidic, inorganic, n.o.s.

NOTE: 1463 chromium trioxide, anhydrous (chromic acid, solid) is a substance of Class 5.1 [(see marginal 2501, 31° (b))].

ORGANIC SUBSTANCES

31° Solid carboxylic acids and anhydrides and solid halogenated carboxylic acids and anhydrides:

- (b) 1839 trichloroacetic acid, 1938 bromoacetic acid;

- (c) 2214 phthalic anhydride with more than 0.05% of maleic anhydride, 2215 maleic anhydride, 2698 tetrahydrophthalic anhydrides with more than 0.05% of maleic anhydride, 2823 crotonic acid.

NOTE 1: Phthalic anhydride and tetrahydrophthalic anhydrides with not more than 0.05% of maleic anhydride are not subject to the provisions of this class.

NOTE 2: Phthalic anhydride with not more than 0.05% of maleic anhydride carried or handed over for carriage in the molten state at a temperature above its flashpoint is a substance of Class 3 (see marginal 2301, 61°).

32° Liquid carboxylic acids and anhydrides and liquid halogenated carboxylic acids and anhydrides:

- (a) 2699 trifluoroacetic acid;

- (b) 1. 1764 dichloroacetic acid, 1779 formic acid, 1940 thioglycolic acid, 2564 trichloroacetic acid solution, 2790 acetic acid solution with not less than 50% but not more than 80% acid, by mass;
2. 1715 acetic anhydride, 2218 acrylic acid, inhibited, 2789 acetic acid, glacial or 2789 acetic acid solution, with more than 80% acid, by mass;

2801
(cont'd)

- (c) 1848 propionic acid, 2496 propionic anhydride, 2511 2-chloropropionic acid, 2531 methacrylic acid, inhibited, 2564 trichloroacetic acid solution, 2739 butyric anhydride, 2790 acetic acid solution with more than 25 % but less than 50 % acid, by mass, 2820 butyric acid, 2829 caproic acid.

NOTE: Acetic acid solutions with not more than 25% pure acid by mass, are not subject to the provisions of ADR.

33° Complex compounds of boron trifluoride:

- (a) 2604 boron trifluoride diethyl etherate (boron trifluoride ether complex);
- (b) 1742 boron trifluoride acetic acid complex, 1743 boron trifluoride propionic acid complex.

NOTE: 2965 boron trifluoride dimethyl etherate is a substance of Class 4.3 (see marginal 2471, 2° (b)).

34° Alkylsulphonic and arylsulphonic acids and alkylsulphuric acids:

- (b) 1803 phenolsulphonic acid, liquid, 2305 nitrobenzenesulphonic acid, 2571 alkylsulphuric acids;
- (c) 2585 alkylsulphonic acids, solid with not more than 5% free sulphuric acid or 2585 arylsulphonic acids, solid with not more than 5% free sulphuric acid, 2586 alkylsulphonic acids, liquid with not more than 5% free sulphuric acid or 2586 arylsulphonic acids, liquid with not more than 5% free sulphuric acid.

NOTE: 2583 alkylsulphonic or arylsulphonic acids, solid and 2584 alkylsulphonic or arylsulphonic acids, liquid with more than 5% free sulphuric acid are substances of 1° (b).

2801
(cont'd)

35° Organic acid halides:

- (b) 1. 1716 acetyl bromide, 1729 anisoyl chloride, 1736 benzoyl chloride, 1765 dichloroacetyl chloride, 1780 fumaryl chloride, 1898 acetyl iodide, 2262 dimethylcarbamoyl chloride, 2442 trichloroacetyl chloride, 2513 bromoacetyl bromide, 2577 phenylacetyl chloride, 2751 diethylthiophosphoryl chloride, 2798 phenylphosphorus dichloride, 2799 phenylphosphorus thiodichloride.
2. 2502 valeryl chloride;
- (c) 2225 benzenesulphonyl chloride.

36° Alkyl and aryl chlorosilanes having a flashpoint above 61 °C:

- (b) 1728 amyltrichlorosilane, 1753 chlorophenyltrichlorosilane, 1762 cyclohexenyltrichlorosilane, 1763 cyclohexyltrichlorosilane, 1766 dichlorophenyltrichlorosilane, 1769 diphenyldichlorosilane, 1771 dodecyltrichlorosilane, 1781 hexadecyltrichlorosilane, 1784 hexyltrichlorosilane, 1799 nonyltrichlorosilane, 1800 octadecyltrichlorosilane, 1801 octyltrichlorosilane, 1804 phenyltrichlorosilane, 2434 dibenzylidichlorosilane, 2435 ethylphenyldichlorosilane, 2437 methylphenyldichlorosilane, 2987 chlorosilanes, corrosive, n.o.s.

NOTE: Chlorosilanes which emit flammable gases in contact with water or moist air are substances of Class 4.3 (see marginal 2471, 1°).

37° Alkylchlorosilanes and arylchlorosilanes, having a flashpoint between 23 °C and 61 °C inclusive:

- (b) 1724 alkyltrichlorosilane, stabilized, 1747 butyltrichlorosilane, 1767 diethyldichlorosilane, 1816 propyltrichlorosilane, 2986 chlorosilanes, corrosive, flammable, n.o.s.

2801 NOTE: Chlorosilanes which emit flammable gases in contact
(cont'd) with water or moist air are substances of Class 4.3 (see
marginal 2471, 1°).

38° Alkylphosphoric acids:

(c) 1718 butyl acid phosphate, 1793 isopropyl acid phosphate, 1902 diisooctyl acid phosphate, 2819 amyl acid phosphate.

39° Solid organic acid substances and mixtures of these substances (such as preparations and wastes) which cannot be classified under other collective headings:

(a) 2430 alkylphenols, solid, n.o.s. (including C₂-C₁₂ homologues),
3261 corrosive solid, acidic, organic, n.o.s.;

(b) 2430 alkylphenols, solid, n.o.s. (including C₂-C₁₂ homologues), 2670 cyanuric chloride,
3261 corrosive solid, acidic, organic, n.o.s.;

(c) 2430 alkylphenols, solid, n.o.s. (including C₂-C₁₂ homologues),
3261 corrosive solid, acidic, organic, n.o.s.

40° Liquid organic acid substances and solutions and mixtures of these substances (such as preparations and wastes) which cannot be classified under other collective headings:

(a) 3145 alkylphenols, liquid, n.o.s. (including C₂-C₁₂ homologues),
3265 corrosive liquid, acidic, organic, n.o.s.;

(b) 3145 alkylphenols, liquid, n.o.s. (including C₂-C₁₂ homologues),
3265 corrosive liquid, acidic, organic, n.o.s.;

(c) 3145 alkylphenols, liquid, n.o.s. (including C₂-C₁₂ homologues),
3265 corrosive liquid, acidic, organic, n.o.s.;

B. Basic substances**INORGANIC SUBSTANCES****2801
(cont'd)****41° Basic solid compounds of alkali metals:**

- (b) 1813 potassium hydroxide, solid (caustic potash), 1823 sodium hydroxide, solid (caustic soda), 1825 sodium monoxide (sodium oxide), 2033 potassium monoxide (potassium oxide), 2678 rubidium hydroxide, 2680 lithium hydroxide monohydrate, 2682 caesium hydroxide;
- (c) 1907 soda lime with more than 4% sodium hydroxide, 3253 disodium trioxosilicate pentahydrate (sodium metasilicate pentahydrate).

NOTE: Soda lime with not more than 4% sodium hydroxide is not subject to the provisions of ADR.

42° Solutions of alkaline substances:

- (b) 1814 potassium hydroxide solution (potash lye), 1819 sodium aluminate solution, 1824 sodium hydroxide solution (soda lye), 2677 rubidium hydroxide solution, 2679 lithium hydroxide solution, 2681 caesium hydroxide solution, 2797 battery fluid, alkali, 1719 caustic alkali, liquid, n.o.s.;
- (c) 1814 potassium hydroxide solution (potash lye), 1819 sodium aluminate solution, 1824 sodium hydroxide solution (soda lye), 2677 rubidium hydroxide solution, 2679 lithium hydroxide solution, 2681 caesium hydroxide solution, 1719 caustic alkali liquid, n.o.s.

43° Ammonia solutions:

- (c) 2672 ammonia solution, relative density between 0.88 and 0.957 at 15 °C in water with more than 10% but not more than 35% ammonia.

NOTE 1: Ammonia solutions with more than 35% ammonia are substances of Class 2 [see marginal 2201, 9° (at)].

2801 (cont'd) NOTE 2: Ammonia solutions with not more than 10% ammonia are not subject to the provisions of ADR.

44° Hydrazine and its aqueous solutions:

- (a) 2029 hydrazine, anhydrous;
- (b) 2030 hydrazine hydrate or 2030 hydrazine, aqueous solution with not less than 37% but not more than 64% hydrazine, by mass;

NOTE: 3293 hydrazine, aqueous solution with not more than 37% hydrazine, by mass, is a substance of Class 6.1 [see marginal 2601, 65° (c)].

45° Sulphides and hydrogen sulphides and their aqueous solutions:

- (b) 1. 1847 potassium sulphide, hydrated with not less than 30% water of crystallization, 1849 sodium sulphide, hydrated with not less than 30% water, 2818 ammonium polysulphide solution, 2949 sodium hydrosulphide, hydrated with not less than 25% water of crystallization;
- 2. 2683 ammonium sulphide solution;
- (c) 2818 ammonium polysulphide solution.

NOTE: 1382 anhydrous potassium sulphide and 1385 anhydrous sodium sulphide and their hydrates with less than 30% water of crystallization, and 2318 sodium hydrosulphide with less than 25% water of crystallization are substances of Class 4.2 [see marginal 2431, 13° (b)].

46° Solid inorganic basic substances and mixtures of these substances (such as preparations and wastes) which cannot be classified under other collective headings:

- (a) 3262 corrosive solid, basic, inorganic, n.o.s.;
- (b) 3262 corrosive solid, basic, inorganic, n.o.s.;
- (c) 3262 corrosive solid, basic, inorganic, n.o.s.

2801 (cont'd) 47° Liquid inorganic basic substances and solutions and mixtures of these substances (such as preparations and wastes) which cannot be classified under other collective headings:

- (a) 3266 corrosive liquid, basic, inorganic, n.o.s.;
- (b) 3266 corrosive liquid, basic, inorganic, n.o.s.;
- (c) 3266 corrosive liquid, basic, inorganic, n.o.s.

ORGANIC SUBSTANCES

51° Tetra-alkylammonium hydroxides:

- (b) 1835 tetramethylammonium hydroxide.

52° Solid amines and polyamines:

- (a) 3259 amines, solid, corrosive, n.o.s. or
3259 polyamines, solid, corrosive, n.o.s.;
- (b) 3259 amines, solid, corrosive, n.o.s. or
3259 polyamines, solid, corrosive, n.o.s.;
- (c) 2280 hexamethylenediamine, solid, 2579 piperazine
(diethylenediamine), 3259 amines, solid, corrosive,
n.o.s. or
3259 polyamines, solid, corrosive, n.o.s.

53° Liquid amines and polyamines or amino-alcohols, highly corrosive or corrosive, having a flashpoint above 61 °C:

- (a) 2735 amines, liquid, corrosive, n.o.s. or
2735 polyamines, liquid, corrosive, n.o.s.;
- (b) 1761 cupriethylenediamine solution,
1783 hexamethylenediamine solution,
2079 diethylenetriamine, 2259 triethylenetetramine,
2735 amines, liquid, corrosive, n.o.s. or
2735 polyamines, liquid, corrosive, n.o.s.;

- 2801 (c) 1761 cupriethylenediamine solution,
(cont'd) 1783 hexamethylenediamine solution,
2269 3,3'-iminodipropylamine (bisaminoproylamine,
dipropylenetriamine), 2289 isophoronediamine,
2320 tetraethylenepentamine,
2326 trimethylcyclohexylamine,
2327 trimethylhexamethylenediamines, 2491 ethanolamine,
2491 ethanolamine solution, 2542 tributylamine,
2565 dicyclohexylamine, 2815 N-aminoethylpiperazine,
3055 2-(2-aminoethoxy)ethanol,
2735 amines, liquid, corrosive, n.o.s. or
2735 polyamines, liquid, corrosive, n.o.s.

54° Liquid amines and polyamines, highly corrosive or corrosive, flammable having a boiling point greater than 35 °C:

- (a) 2734 amines, liquid, corrosive, flammable, n.o.s. or
2734 polyamines, liquid, corrosive, flammable, n.o.s.;
- (b) 1604 ethylenediamine, 2051 2-dimethylaminoethanol,
2248 di-n-butylamine, 2258 1,2-propylenediamine,
2264 dimethylcyclohexylamine, 2357 cyclohexylamine,
2619 benzyl dimethylamine,
2685 N,N-diethylethylenediamine,
2734 amines, liquid, corrosive, flammable, n.o.s. or
2734 polyamines, liquid, corrosive, flammable, n.o.s.

55° Solid organic basic substances and mixtures of these substances (such as preparations and wastes) which cannot be classified under other collective headings:

- (a) 3263 corrosive solid, basic, organic, n.o.s.;
- (b) 3263 corrosive solid, basic, organic, n.o.s.;
- (c) 3263 corrosive solid, basic, organic, n.o.s.

56° Liquid organic basic substances and solutions and mixtures of these substances (such as preparations and wastes) which cannot be classified under other collective headings:

- (a) 3267 corrosive liquid, basic, organic, n.o.s.;
- (b) 3267 corrosive liquid, basic, organic, n.o.s.;

2801 (cont'd) (c) 3267 corrosive liquid, basic, organic, n.o.s.

C. Other corrosive substances

61* Chlorite and hypochlorite solutions:

- (b) 1791 hypochlorite solution with not less than 16% available chlorine, 1908 chlorite solution, with not less than 16% available chlorine;
- (c) 1791 hypochlorite solution with more than 5% but less than 16% available chlorine, 1908 chlorite solution, with more than 5% but less than 16% available chlorine.

NOTE 1: Chlorite and hypochlorite solutions with not more than 5% available chlorine are not subject to the provisions of ADR.

NOTE 2: Solid chlorites and hypochlorites are substances of Class 5.1 (see marginal 2501, 14*, 15* and 29*).

62* Chlorophenolates and phenolates:

- (c) 2904 chlorophenolates, liquid or 2904 phenolates, liquid, 2905 chlorophenolates, solid or 2905 phenolates, solid.

63* Formaldehyde solutions:

- (c) 2209 formaldehyde solution with not less than 25% formaldehyde.

NOTE 1: 1198 formaldehyde solutions, flammable are substances of Class 3 (see marginal 2301, 33* (c)).

NOTE 2: Formaldehyde solutions, non-flammable, with less than 25% formaldehyde are not subject to the provisions of ADR.

64* Chloroformates and chlorothioformates:

- (a) 1739 benzyl chloroformate;
- (b) 2826 ethyl chlorothioformate.

2801 (cont'd) NOTE: Chloroformates having predominantly toxic properties are substances of Class 6.1 (see marginal 2601, 10°, 17°, 27° and 28°).

65° Solid corrosive substances and mixtures of these substances (such as preparations and wastes) which cannot be classified under other collective headings:

- (a) 1759 corrosive solid, n.o.s.;
- (b) 1770 diphenylmethyl bromide,
1759 corrosive solid, n.o.s.,
3147 dye, solid, corrosive, n.o.s. or 3147 dye
intermediate, solid, corrosive, n.o.s.;
3244 solids containing corrosive liquid, n.o.s.

NOTE: Mixtures of solids not subject to the provisions of ADR and corrosive liquids may be carried under number 3244, without being subject to the classification criteria of marginal 2800 (3), provided there is no free liquid visible at the time the substance is loaded or at the time the transport unit is closed. Each packaging shall correspond to a design type which has passed the leakproofness test for group (b) level.

- (c) 2803 gallium,
1759 corrosive solid, n.o.s.,
3147 dye, solid, corrosive, n.o.s. or 3147 dye
intermediate, solid, corrosive, n.o.s.

NOTE: Special conditions of packing are applicable to 2803 gallium [see marginal 2807 (4)].

66° Liquid corrosive substances and solutions and mixtures of these substances (such as preparations and wastes) which cannot be classified under other collective headings:

- (a) 1760 corrosive liquid, n.o.s.,
1903 disinfectant, liquid, corrosive, n.o.s.;

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(cont'd)

- (b) 2226 benzotrichloride (trichloromethylbenzene),
2705 1-pentol (3-methyl-2-pentene-4-yne-1-ol),
3066 paint (including paint, lacquer, enamel, stain,
shellac, varnish, polish, liquid filler and liquid
lacquer base) or 3066 paint related material including
paint thinning or reducing compound,
1760 corrosive liquid, n.o.s.,
1903 disinfectant, liquid, corrosive, n.o.s.,
2801 dye, liquid, corrosive, n.o.s. or 2801 dye
intermediate, liquid, corrosive, n.o.s.;
- (c) 2809 mercury, 3066 paint (including paint, lacquer,
enamel, stain, shellac, varnish, polish, liquid filler
and liquid lacquer base) or 3066 paint related material
including paint thinning or reducing compound,
1760 corrosive liquid, n.o.s.,
1903 disinfectant, liquid, corrosive, n.o.s.,
2801 dye, liquid, corrosive, n.o.s. or 2801 dye
intermediate, liquid, corrosive, n.o.s.

NOTE 1: Special conditions of packing are applicable to
2809 mercury (see marginal 2807 (4)).

NOTE 2: Any substance of ADR specifically listed by name
under other items may not be carried under the entries for
3066 paint or 3066 paint related material.

Substances carried under these entries may contain 20% or
less nitrocellulose provided the nitrocellulose contains not
more than 12.6% nitrogen.

- 67° Solid corrosive substances and mixtures of these substances,
(such as preparations and wastes), flammable, which cannot be
classified under other collective headings:

- (a) 2921 corrosive solid, flammable, n.o.s.;
- (b) 2921 corrosive solid, flammable, n.o.s.

- 68° Liquid corrosive substances and solutions and mixtures of
these substances, (such as preparations and wastes),
flammable, having a boiling point greater than 35 °C, which
cannot be classified under other collective headings:

- 2801 (cont'd) 68° (a) 2920 corrosive liquid, flammable, n.o.s.;
(cont'd) (b) 2920 corrosive liquid, flammable, n.o.s.
- 69° Solid corrosive substances and mixtures of these substances, self-heating, (such as preparations and wastes) which cannot be classified under other collective headings:
- (a) 3095 corrosive solid, self-heating, n.o.s.;
(b) 3095 corrosive solid, self-heating, n.o.s.
- 70° Liquid corrosive substances and solutions and mixtures of these substances, self-heating, (such as preparations and wastes), which cannot be classified under other collective headings:
- (a) 3301 corrosive liquid, self-heating, n.o.s.;
(b) 3301 corrosive liquid, self-heating, n.o.s.
- 71° Solid corrosive substances and mixtures of these substances, (such as preparations and wastes) which, in contact with water, emit flammable gases, and which cannot be classified under other collective headings:
- (a) 3096 corrosive solid, water-reactive, n.o.s.;
(b) 3096 corrosive solid, water-reactive, n.o.s.

NOTE: The term "Water-reactive" denotes a substance which, in contact with water, emits flammable gases.

- 72° Liquid corrosive substances and solutions and mixtures of these substances (such as preparations and wastes) which, in contact with water, emit flammable gases and which cannot be classified under other collective headings:
- (a) 3094 corrosive liquid, water-reactive, n.o.s.;
(b) 3094 corrosive liquid, water-reactive, n.o.s.

NOTE: The term "water-reactive" denotes a substance which, in contact with water, emits flammable gases.

- 2801 (cont'd)
- 73° Solid corrosive substances and mixtures of these substances, oxidizing, (such as preparations and wastes) which cannot be classified under other collective headings:
- (a) 3084 corrosive solid, oxidizing, n.o.s.;
- (b) 3084 corrosive solid, oxidizing, n.o.s.
- 74° Liquid corrosive substances and solutions and mixtures of these substances, oxidizing, (such as preparations and wastes) which cannot be classified under other collective headings:
- (a) 3093 corrosive liquid, oxidizing, n.o.s.;
- (b) 3093 corrosive liquid, oxidizing, n.o.s.
- 75° Solid corrosive substances and mixtures of these substances, toxic (such as preparations and wastes) which cannot be classified under other collective headings:
- (a) 2923 corrosive solid, toxic, n.o.s.;
- (b) 2923 corrosive solid, toxic, n.o.s.;
- (c) 2923 corrosive solid, toxic, n.o.s.
- 76° Liquid corrosive substances and solutions and mixtures of these substances, toxic, (such as preparations and wastes) which cannot be classified under other collective headings:
- (a) 2922 corrosive liquid, toxic, n.o.s.;
- (b) 2922 corrosive liquid, toxic, n.o.s.;
- (c) 2922 corrosive liquid, toxic, n.o.s.
- D. Articles containing corrosive substances
- 81° Batteries:
- (c) 2794 batteries, wet, filled with acid, electric storage,
2795 batteries, wet, filled with alkali, electric
storage,

- 2801 81° 2800 batteries, wet, non-spillable, electric storage,
(cont'd) (cont'd) 3028 batteries, dry containing potassium hydroxide
solid, electric storage.

NOTE 1: Special conditions of packing are applicable to these articles [see marginal 2807 (5)]

NOTE 2: Batteries (identification number 2800) can be considered as non-spillable provided that they are capable of withstanding the vibration and pressure differential tests given below, without leakage of battery fluid.

Vibration test: The battery is rigidly clamped to the platform of a vibration machine and a simple harmonic motion having an amplitude of 0.8 mm (1.6 mm maximum total excursion) is applied. The frequency is varied at the rate of 1 Hz/min between the limits of 10 Hz to 55 Hz. The entire range of frequencies and return is traversed in 95 ± 5 minutes for each mounting position (direction of vibration) of the battery. The battery is tested in three mutually perpendicular positions (to include testing with fill openings and vents, if any, in an inverted position) for equal time periods.

Pressure differential test: Following the vibration test, the battery is stored for six hours at $24^{\circ}\text{C} \pm 4^{\circ}\text{C}$ while subjected to a pressure differential of at least 88 kPa. The battery is tested in three mutually perpendicular positions (to include testing with fill openings and vents, if any, in an inverted position) for at least six hours in each position.

82° Other articles containing corrosive substances:

- (b) 1774 fire extinguisher charges, corrosive liquid,
2028 bombs, smoke, non-explosive with corrosive liquid,
without initiating device.

E. Empty packagings

91° Empty packagings, including empty intermediate bulk containers (IBCs), empty tank-vehicles, empty demountable tanks, empty tank-containers, uncleaned, as well as empty vehicles for carriage in bulk and empty small bulk containers, uncleaned, having contained substances of Class 8.

2801a Neither the provisions of this class contained in this Annex nor those contained in Annex B are applicable to:

(1) Substances of 1° to 5°, 7° to 13°, 16°, 17°, 31° to 47°, 51° to 56° and 61° to 76°, carried in conformity with the following provisions:

(a) Substances classified under (a) of each item:

Liquids: not more than 100 ml per inner packaging and not more than 400 ml per package;

Solids: not more than 500 g per inner packaging and not more than 2 kg per package.

(b) Substances classified under (b) of each item:

Liquids: not more than 1 litre per inner packaging and not more than 4 litres per package;

Solids: not more than 3 kg per inner packaging and not more than 12 kg per package.

(c) Substances classified under (c) of each item:

Liquids: not more than 3 litres per inner packaging and not more than 12 litres per package;

Solids: not more than 6 kg per inner packaging and not more than 24 kg per package.

These quantities of substances shall be carried in combination packagings which at least meet the conditions of marginal 3538.

The "General conditions of packing" of marginal 3500 (1), (2) and (5) to (7) shall be observed.

2801a (cont'd) (2) Non-spillable batteries with identification number 2800 of 81° if at temperature of 55 °C, the electrolyte will not flow from a ruptured or cracked case and there is no free liquid to flow and if when packaged for carriage, the terminals are protected from short circuits.

(3) Manufactured articles or instruments containing not more than 1 kg mercury of 66° (c).

2. Provisions

A. Packages

1. General conditions of packing

2802 (1) Packagings shall satisfy the conditions of Appendix A.5, unless special conditions for the packing of certain substances are prescribed in marginals 2803 to 2808.

(2) Intermediate bulk containers (IBCs) shall satisfy the conditions of Appendix A.6.

(3) In accordance with the provisions of marginals 2800(3)(b) and 3511(2) or 3611(2) respectively the following shall be used:

- packagings of packing group I, marked with the letter "X", for the highly corrosive substances classified under the letter (a) of each item;
- packagings of packing group II or I, marked with the letter "Y" or "X", or IBCs of packing group II, marked with the letter "Y", for the corrosive substances classified under the letter (b) of each item;
- packagings of packing group III, II or I, marked with the letter "Z", "Y" or "X", or IBCs of packing group III or II, marked with the letter "Z" or "Y", for the slightly corrosive substances classified under the letter (c) of each item.

NOTE: For the carriage of substances of Class 8 in tank-vehicles, demountable tanks or tank-containers, and for the carriage in bulk of solids of this Class, see Annex B.

2. Special conditions for packing of certain substances

2803

Hydrogen fluoride, anhydrous and hydrofluoric acid solution containing more than 85% hydrogen fluoride of 6° shall be packed in pressure receptacles made of carbon steel or suitable alloy steel. The following pressure receptacles shall be permitted:

- (a) cylinders having a capacity not exceeding 150 litres;
- (b) receptacles having a capacity of not less than 100 litres and not more than 1,000 litres (for example, cylindrical receptacles fitted with rolling hoops or receptacles mounted on skids).

The pressure receptacles shall satisfy the relevant requirements of Class 2 (see marginals 2211, 2213(1) and (2), 2215, 2216 and 2218). The wall thickness of the pressure receptacles shall not be less than 3 mm.

Before being used for the first time, pressure receptacles shall be subjected to a hydraulic pressure test at a pressure of not less than 1 MPa (10 bar) gauge pressure. The pressure test shall be repeated every eight years and shall be accompanied by an internal inspection of the pressure receptacles and a check of their equipment. In addition, the resistance of the pressure receptacles to corrosion shall be checked by means of suitable instruments (e.g. by ultrasound), and the condition of the equipment verified, every two years.

The tests and inspections shall be carried out under the supervision of an expert approved by the competent authority.

The maximum mass of the contents per litre of capacity for hydrogen fluoride, anhydrous or hydrofluoric acid solution shall not exceed 0.84kg.

2804

(1) Bromine and bromine solution of 14° shall be packed in glass inner packagings, containing not more than 2.5 litres each, or in polyvinylidene fluoride (PVDF) inner packagings containing not more than 15 litres each which shall be placed in combination packagings conforming to marginal 3538. The combination packagings shall be tested and approved in accordance with Appendix A.5 for packing group I.

2804
(cont'd)

(2) Bromine containing less than 0.005% water, or between 0.005% and 0.2% water, provided that in the latter case measures are taken to prevent corrosion of the lining of the receptacles, may also be carried in receptacles satisfying the following conditions:

- (a) the receptacles shall be made of steel and be equipped with a leakproof lining made of lead or of some other material affording equivalent protection and with a hermetic closure; receptacles made of monel metal or nickel, or with a nickel lining, shall also be permitted;
- (b) the capacity of the receptacles shall not exceed 450 litres;
- (c) the receptacles shall not be filled to more than 92% of their capacity or more than 2.86 kg per litre of capacity;
- (d) the receptacles shall be welded and designed for a calculation pressure of not less than 2.1 MPa (21 bar) gauge pressure. The materials and workmanship shall in other respects meet the relevant requirements of Class 2 [see marginal 2211(1)]. The initial test of unlined steel receptacles shall be subject to the provisions of Class 2 [see marginals 2215(1) and 2216(1)];
- (e) the closures shall project as little as possible from the receptacle and be fitted with protective caps. The closures and caps shall be fitted with gaskets made of a material not capable of being attacked by bromine. The closures shall be in the upper part of the receptacles in such a manner that they can in no case be in permanent contact with the liquid phase;
- (f) the receptacles shall be provided with fittings enabling them to stand stably upright, and with lifting attachments (rings, flanges, etc.) at the top, which shall be tested at twice the working load.

2804 (3) Before being put into service, receptacles in conformity (cont'd) with (2) above shall be subjected to a leakproofness test at a pressure of at least 200 kPa (2 bar) gauge pressure. The leakproofness test shall be repeated every two years and shall be accompanied by an internal inspection of the receptacle and a check of its tare. The test and the inspection shall be carried out under the supervision of an expert approved by the competent authority.

(4) Receptacles in conformity with (2) shall bear, in clearly legible and durable characters:

- the name of the manufacturer or the manufacturing mark and the number of the receptacle,
- the word "Bromine",
- tare mass of the receptacle and the permissible maximum mass of the filled receptacle,
- date (month, year) of the initial test and of the latest periodical test,
- stamp of the expert who carried out the tests and inspections.

2805 (1) Substances classified under (a) of the various items shall be packed in:

- (a) non-removable head steel drums conforming to marginal 3520, or
- (b) non-removable head aluminium drums conforming to marginal 3521, or
- (c) non-removable head steel jerricans conforming to marginal 3522, or
- (d) non-removable head plastics drums of a capacity not exceeding 60 litres or non-removable head plastics jerricans conforming to marginal 3526, or
- (e) composite packagings (plastics material) conforming to marginal 3537, or

- 2805 (cont'd)
- (f) combination packagings with inner packagings of glass, plastics or metal conforming to marginal 3538, or
 - (g) composite packagings (glass, porcelain or stoneware) conforming to marginal 3539.

NOTE 1: to (d). The permissible period of use for packagings intended for the carriage of nitric acid of 2°(a) and hydrofluoric acid solution of 7°(a) shall be two years from the date of their manufacture.

NOTE 2: to (f) and (g). Inner packagings or receptacles of glass shall not be permitted for fluorides of 7°(a), 8°(a) or 33°(a).

(2) Solid substances within the meaning of marginal 2800(5) may also be packed in:

- (a) removable head drums conforming to marginals 3520 for steel, 3521 for aluminium, 3523 for plywood, 3525 for fibreboard, or 3526 for plastics material, or in removable head jerricans conforming to marginals 3522 for steel or 3526 for plastics material, if necessary with one or more sift-proof inner bags; or
- (b) combination packagings conforming to marginal 3538, with one or more sift-proof inner bags.

- 2806
- (1) Substances classified under (b) of the various items shall be packed in:
 - (a) steel drums conforming to marginal 3520, or
 - (b) aluminium drums conforming to marginal 3521, or
 - (c) steel jerricans conforming to marginal 3522, or
 - (d) plastics drums or plastics jerricans conforming to marginal 3526, or
 - (e) composite packagings (plastics material) conforming to marginal 3537, or
 - (f) combination packagings conforming to marginal 3538, or

- 2806 (g) composite packagings (glass, porcelain or stoneware)
(cont'd) conforming to marginal 3539.

NOTE 1: to (a), (b), (c) and (d). Simplified conditions are applicable to removable head drums and jerricans for viscous substances having a viscosity of more than 200 mm²/s at 23 °C and for solid substances (see marginals 3512, 3553, 3554 and 3560).

NOTE 2: to (d). The permissible period of use for packagings intended for the carriage of nitric acid containing more than 55% pure acid of 2°(b) and hydrofluoric acid solution of 7°(b) shall be two years from the date of their manufacture.

NOTE 3: to (f) and (g). Inner packagings or receptacles of glass shall not be permitted for fluorides of 7°(b), 8°(b), 9°(b), 10°(b) or 33°(b).

(2) Substances classified under (b) of the various items which have a vapour pressure at 50 °C of not more than 110 kPa (1.10 bar) may also be packed in metal IBCs conforming to marginal 3622, rigid plastics IBCs conforming to marginal 3624 or composite IBCs with rigid plastics inner receptacle conforming to marginal 3625.

(3) Solid substances within the meaning of marginal 2800(5) may also be packed in:

- (a) drums conforming to marginals 3523 for plywood or 3525 for fibreboard, if necessary with one or more sift-proof inner bags, or
- (b) water-resistant bags conforming to marginals 3533 for textile material, 3534 for woven plastics material, 3535 for plastics film or 3536 for water-resistant paper, provided the goods are carried as a full load or the bags are secured on pallets, or
- (c) composite IBCs with plastics inner receptacle conforming to marginal 3625, fibreboard IBCs conforming to marginal 3626 or wooden IBCs conforming to marginal 3627, or

- 2806 (cont'd)
- (d) flexible IBCs conforming to marginal 3623 with the exception of IBCs of types 13H1, 13L1 and 13M1, and provided that the goods are carried as a full load or the flexible IBCs are loaded on pallets.
- (4) Articles of 82[°] shall be packed as follows:
- (a) fire extinguisher charges, corrosive liquid, in wooden boxes conforming to marginals 3527, 3528 or 3529, or fibreboard boxes conforming to marginal 3530, or expanded plastics boxes of type 4H1 conforming to marginal 3531.
 - (b) bombs, smoke, non-explosive with corrosive liquid, without initiating device, individually with cushioning material in boxes, tubes or partitioned compartments in either wooden boxes conforming to marginals 3527, 3528 or 3529, or steel boxes of type 4A conforming to marginal 3537.
- 2807
- (1) Substances classified under (c) except gallium of 65[°](c) and mercury of 66[°](c), of the various items shall be packed in:
 - (a) steel drums conforming to marginal 3520, or
 - (b) aluminium drums conforming to marginal 3521, or
 - (c) steel jerricans conforming to marginal 3522, or
 - (d) plastics drums or plastics jerricans conforming to marginal 3526, or
 - (e) composite packagings (plastics material) conforming to marginal 3537, or
 - (f) combination packagings conforming to marginal 3538, or
 - (g) composite packagings (glass, porcelain or stoneware) conforming to marginal 3539, or
 - (h) light gauge metal packagings conforming to marginal 3540.

2807 (cont'd) **NOTE:** to (a), (b), (c), (d) and (h). Simplified conditions are applicable to removable head drums, jerricans and light gauge metal packagings for viscous substances having a viscosity of more than 200 mm²/s at 23 °C and for solid substances (see marginals 3512, 3552 to 3554 and 3560).

(2) Substances classified under (c) except gallium of 65°(c) and mercury of 66°(c), of the various items which have a vapour pressure at 50 °C of not more than 110 kPa (1.10 bar) may also be packed in metal IBCs conforming to marginal 3622, rigid plastics IBCs conforming to marginal 3624 or composite IBCs with rigid plastics inner receptacle conforming to marginal 3625.

(3) Solid substances within the meaning of marginal 2800(5) may also be packed:

- (a) in drums conforming to marginals 3523 for plywood, or 3525 for fibreboard, if necessary with one or more sift-proof inner bags, or
- (b) in water-resistant bags conforming to marginals 3533 for textile material, 3534 for woven plastics material or 3535 for plastics film or 3536 for water-resistant paper, or
- (c) in flexible IBCs conforming to marginal 3623 with the exception of IBCs of types 13H1, 13L1 and 13M1 or in composite IBCs with flexible plastics inner receptacle conforming to marginal 3625 or in fibreboard IBCs conforming to marginal 3626 or wooden IBCs conforming to marginal 3627.

- (4) (a) Gallium of 65°(c) and mercury of 66°(c) shall be packed in combination packagings conforming to marginal 3538. These combination packagings may consist of glass, porcelain, stoneware or plastics inner packagings, maximum net quantity of 10 kg. The following outer packagings may be used:

2807
(cont'd)

natural wood boxes conforming to marginal 3527; plywood boxes conforming to marginal 3528; reconstituted wood boxes conforming to marginal 3529; fibreboard boxes conforming to marginal 3530; plastics boxes conforming to marginal 3531 removable head steel drums conforming to marginal 3520; removable-head steel jerricans conforming to marginal 3522; plywood drums conforming to marginal 3523; fibre drums conforming to marginal 3525; or in removable head plastics drums conforming to marginal 3526.

(b) Mercury may also be packed in welded steel bottles with inner vaulted bottoms as single packagings. The closure shall be a bolt with a conical thread and the opening shall not exceed 20 mm.

(5) (a) Articles of 81*, except batteries, wet, non-spillable, shall be fastened with inert cushioning material or in an equivalent manner in wooden boxes or in rigid plastics boxes or in a wooden slatted crate. Batteries shall be insulated against short-circuiting.

(b) Non-spillable type batteries (identification number 2800) shall be protected against short-circuits and shall be securely packed in strong outer packagings.

NOTE: Non-spillable batteries which are an integral part of, and necessary for, the operation of mechanical or electronic equipment, shall be securely fastened in the battery holder on the equipment and protected in such a manner as to prevent damage and short circuits.

(c) Articles of 81* may be carried on pallets. They shall be stacked and adequately secured in tiers separated by a layer of non-conductive material. Battery terminals shall not, in any case, support the weight of other superimposed elements. Batteries shall be isolated in such a manner as to prevent short-circuits. Each battery need not be marked and labelled if the pallet load bears a marking and a danger label.

2808

Packagings, including IBCs, containing 1791 hypochlorite solution of 61* shall be fitted with a vent conforming to marginals 3500(8) or 3601(6) respectively.

2809 Molten phosphorus oxybromide of 15° may be carried only in tank vehicles (see Appendix B.1a) or in tank-containers (see Appendix B.1b).

2810

3. Mixed packing

2811 (1) Substances covered by the same item number may be packed together in a combination packaging conforming to marginal 3538.

(2) Substances of different items of this Class in quantities not exceeding, per inner packaging, 3 litres for liquids and/or 5 kg for solids, may be packed together and/or with goods not subject to the provisions of ADR [see marginal 2800(8)], in a combination packaging conforming to marginal 3538 provided they do not react dangerously with one another.

(3) Substances of 4° shall not be packed together with other goods, except with substances of 3° of Class 5.1, marginal 2501. Substances of 6° and 14° shall not be packed together with other goods.

(4) Substances classified under (a) of the various items shall not be packed together with substances and articles of classes 1 and 5.2 and material of class 7.

(5) Except as otherwise specially provided, liquid substances classified under (a) of the various items, in quantities not exceeding 0.5 litre per inner packaging and 1 litre per package, and substances classified under (b) or (c) of the various items, in quantities not exceeding, per inner packaging, 3 litres for liquids and/or 5 kg for solids, may be packed together in a combination packaging conforming to marginal 3538 with substances or articles of other Classes, provided that mixed packing is also permitted for the substances and articles of these Classes, and/or with goods which are not subject to the provisions of ADR [see marginal 2800 (8)], provided they do not react dangerously with one another.

(6) The following are considered dangerous reactions:

- (a) combustion and/or giving off considerable heat,
- (b) emission of flammable and/or toxic gases,
- (c) formation of corrosive liquids,

2811 (d) formation of unstable substances.
(cont'd)

(7) The mixed packing of acid substances with basic substances in a package shall not be permitted if the two substances are packed in fragile packagings.

(8) The provisions of marginals 2001(7), 2002(6) and (7) and 2802 shall be complied with.

(9) If wooden or fibreboard boxes are used, a package shall not weigh more than 100 kg.

4. Marking and danger labels on packages

2812 Marking

(1) Each package shall be clearly marked with the identification number of the goods to be entered in the transport document, preceded by the letters "UN".

Danger labels

(2) Packages containing substances or articles of Class 8 shall bear a label conforming to model No. 8.

(3) Packages containing substances of 32°(b)2., 33°(a), 35°(b)2., 37°, 54°, 64°(b) and 68° shall, in addition bear a label conforming to model No. 3.

(4) Packages containing substances of 44°(a) and 45°(b)2. shall in addition bear labels conforming to models Nos. 3 and 6.1.

(5) Packages containing substances of 67° shall in addition bear a label conforming to model No. 4.1.

(6) Packages containing substances of 69° and 70° shall in addition bear a label conforming to model No. 4.2.

(7) Packages containing substances of 71° and 72° shall in addition bear a label conforming to model No. 4.3.

(8) Packages containing substances of 3°(a), 4°, 73° and 74° shall in addition bear a label conforming to model No. 05.

2812 (9) Packages containing substances of 2[°](a)2. shall in addition
(cont'd) bear labels conforming to models Nos. 05 and 6.1.

(10) Packages containing substances listed below shall in addition bear a label conforming to model No. 6.1:

Item number	Substance identification number	Substance
1 [°] (a)	1831	Sulphuric acid, fuming (oleum)
6 [°]		All substances
7 [°]		All substances
9 [°] (b)	1811	Potassium hydrogendifluoride (potassium bifluoride)
10 [°] (b)	1732	Antimony pentafluoride
12 [°] (a)	1809	Phosphorus trichloride
	2879	Selenium oxychloride
14 [°]		All substances
44 [°] (b)		All substances
45 [°] (b)1. and (c)	2818	Ammonium polysulphide solution
53 [°] (b) and (c)	1761	Cupriethylenediamine solution
75 [°]		All substances
76 [°]		All substances

(11) Packages containing fragile receptacles not visible from the outside shall in addition bear on two opposite sides a label conforming to model No. 12.

(12) Packages containing liquids in receptacles, the closures of which are not visible from the outside, as well as packages containing vented receptacles or vented receptacles without outer packaging, shall in addition bear on two opposite sides a label conforming to model No. 11.

2813-

B. Particulars in transport document

2814

The description of the goods in the transport document shall conform to one of the substance identification numbers and one of the names underlined in marginal 2801.

If the substance is not mentioned by name but is assigned to an n.o.s. entry the description of the goods shall consist of the identification number and the n.o.s. designation, followed by the chemical or technical name. 3/

The description of the goods shall be followed by particulars of the Class, the item number, the letter if applicable, and the initials "ADR" (or "RID"), e.g. "8, I^a(a), ADR".

For the carriage of wastes (see marginal 2000(5)) the description of the goods shall be: "Waste, containing ...", the component(s) which has/have been used for the classification of the waste under marginal 2002(8) to be entered under its/their chemical name(s), e.g. "Waste containing 1824 sodium hydroxide solution, 8, 42 (b) ADR".

For the carriage of solutions or mixtures (such as preparations and wastes) containing several components subject to the ADR, it will not in general be necessary to refer to more than two components which predominantly contribute to the danger or dangers of the solutions and mixtures.

For the carriage of solutions and mixtures containing only one component subject to the provisions of ADR, the words "solution" or "mixture" should be added as part of the name in the transport document (see marginal 2002(8)).

When a solid substance is handed over for carriage in the molten state, the description of the goods shall be completed by the word "molten", unless it is already included in the name.

3/ The technical name shall be a name currently used in scientific and technical handbooks, journals and texts. Trade names shall not be used for this purpose.

2814 (cont'd) If a solution or mixture specifically named or containing a specifically named substance is not subject to the conditions of this Class, in accordance with marginal 2800(5), the consignor may enter in the transport document: **"Not Goods of Class 8"**.

2815-
2821

C. Empty packagings

- 2822 (1) Uncleaned empty packagings, including empty IBCs, of 91° shall be closed in the same manner and with the same degree of leakproofness as if they were full.
- (2) Uncleaned empty packagings, including empty IBCs, of 91° shall bear the same danger labels as if they were full.
- (3) The description in the transport document shall conform to one of the names underlined in 91°, e.g. **"Empty packagings, 8, 91°, ADR"**.

In the case of empty tank-vehicles, empty demountable tanks, empty tank-containers and empty small bulk containers, uncleaned, this description shall be completed by adding the words **"Last load"** together with the name and item number of the goods last loaded, e.g. **"Last load: 1830 sulphuric acid, 1°(b)"**.

2823-
2824

D. Transitional measures

- 2825 Substances of class 8 may be carried until 30 June 1995 in accordance with the requirements for Class 8 applicable until 31 December 1994. The transport document shall, in such cases, bear the inscription **"Carriage in accordance with the ADR in force before 1 January 1995"**.

2826-
2899"

CLASS 9 MISCELLANEOUS DANGEROUS SUBSTANCES AND ARTICLES

2901 Insert the following new item

"8° Motor vehicle components

- (c) 3268 air bag inflators, 3268 air bag modules,
3268 seat-belt pre-tensioners or
3268 seat-belt modules

NOTE 1: This item applies to articles which may be classified in Class 1 in accordance with marginal 2100(2)(b), which are used as life-saving vehicle air bags or seat-belts, when carried as component parts and when the 'air bag inflators', 'seat-belt pre-tensioners', 'air bag modules' or 'seat-belt modules' packaged as for carriage have been tested in accordance with test series 6(c) of part I of the recommendations on the transport of dangerous goods, tests and criteria, 2/ with no explosion of the device, no fragmentation of device casings, and no projection hazard or thermal effect, which would significantly hinder firefighting or other emergency response efforts in the immediate vicinity.

NOTE 2: Such air bags or seat-belts installed in vehicles or in completed vehicle components such as steering columns, door panels, etc. are not subject to the provisions of ADR."

"F. Environmentally hazardous substances

NOTE: Assignment of a substance to 11° or 12° shall be as indicated in Appendix A.3, section G, marginals 3390 to 3396.

- 11° Liquid substances pollutant to the aquatic environment and solutions and mixtures of such substances (such as preparations and wastes), which cannot be classified in the other classes, or in items 1° to 8°, 13° and 14° of this Class.

2/ Recommendations on the Transport of Dangerous Goods, Tests and Criteria (Second edition), published by the United Nations Organization under the symbol ST/SG/AC.10/11/Rev.1.

2901

(cont'd)

(c) 3082 Environmentally hazardous substance, liquid, n.o.s., such as:

alcohol C₆-C₁₇ (secondary) poly (3-6) ethoxylate
alcohol C₁₂-C₁₅ poly (1-3) ethoxylate
alcohol C₁₃-C₁₅ poly (1-6) ethoxylate
alpha-cypermethrin
butyl benzyl phthalate
chlorinated paraffins (C₁₀-C₁₃)
1-chlorooctane
cresyl diphenyl phosphate
cyfluthrin
decyl acrylate
di-n-butyl phthalate
1,6-dichlorohexane
diisopropylbenzenes
isodecyl acrylate
isodecyl diphenyl phosphate
isooctyl nitrate
malathion
resmethrin
triaryl phosphates
tricresyl phosphates
triethylbenzene
trixylenyl phosphate

12* Solid substances pollutant to the aquatic environment and mixtures of such substances (such as preparations and wastes) which cannot be classified in the other classes, or in items 1* to 8*, 13* and 14* of this Class.

(c) 3077 Environmentally hazardous substance, solid, n.o.s., such as:

chlorohexidine
chlorinated paraffins (C₁₀-C₁₃)
p-dichlorobenzene
diphenyl
diphenyl ether
fenbutatin oxide
mercurous chloride (calomel)
tributyltin phosphate
zinc bromide

2901

(cont'd) 13* Genetically modified micro-organisms.

NOTE 1: Genetically modified micro-organisms are micro-organisms in which the genetic material has been deliberately altered by technical means or by such means that cannot occur naturally.

NOTE 2: Genetically modified micro-organisms which are infectious are substances of Class 6.2 (see marginal 2651, items 1* to 3*, identification numbers 2814 and 2900).

NOTE 3: Genetically modified micro-organisms within the meaning of this item are those which are not dangerous for humans and animals, but which could alter animals, plants, microbiological substances and ecosystems in such a way as cannot occur naturally.

(b) 3245 Genetically modified micro-organisms

NOTE 1: Genetically modified micro-organisms which have received a consent for deliberate release into the environment, 3/ are not subject to the provisions of this Class of ADR.

NOTE 2: For the purpose of the packaging requirements of marginal 2903, substances and mixtures of substances are deemed to be solids if they do not contain free liquid at a temperature less than 45 °C.

NOTE 3: Live vertebrate or invertebrate animals shall not be used to carry substances classified under this item unless the substance can be carried in no other way.

3/ See in particular Part C of Directive 90/220/EEC (Official Journal of the European Community, No. L 117, of 8 May 1990, pp. 18 to 20), which sets out the authorization procedures for the European Community.

2901 14° Genetically modified organisms

(cont'd)

NOTE: Genetically modified organisms, which are known or suspected to be dangerous to the environment shall be carried in accordance with conditions specified by the competent authority of the country of origin."

Replace the existing heading "F. ~~Empty~~ packagings" by "G. ~~Empty~~ packagings", and "11°" by "21°".

2901a (1) First sentence, replace "of 1°, 2° and 4°" by "of 1°, 2°, 4° and 11° to 13°".

2903 Amend (2)(c) and add a new (2)(d) as follows:

"(c) in composite IBCs with flexible plastics inner receptacle conforming to marginal 3625, fibreboard IBCs conforming to marginal 3626 or wooden IBCs conforming to marginal 3627, or

(d) in flexible IBCs conforming to marginal 3623 with the exception of IBCs of types 13H1, 13L1 and 13M1, provided that the goods are carried as a full load or the flexible IBCs are loaded on pallets."

2904 Add a new paragraph (4) as follows:

"(4) Articles of 8°(c) shall be packed in combination packagings conforming to marginal 3538 and to a design type tested and approved for packing group III".

2908 (new) "(1) If substances of 13° are carried in deeply refrigerated nitrogen, the inner packagings shall conform to the provisions of this Class and the receptacles for the nitrogen shall satisfy the provisions of Class 2.

(2) Live animals in accordance with 13°, NOTE 3, shall be packed, marked, described and carried in accordance with the relevant regulations for the carriage of animals 4/".

2911 In paragraphs (2) and (3), after "items of Class 9", add "except substances of 13°", and replace the word "receptacle" by "inner packaging".

4/ See footnote 4/ in marginal 2650(7).

2911 New paragraph (5):
(cont'd)

"(5) Substances of 13^{*} shall not be packed together in a combination packaging conforming to marginal 3538 with other goods. This shall not apply to substances added as coolants, e.g. ice, dry ice or deeply refrigerated liquid nitrogen."

Paragraphs (5) and (6) become (6) and (7).

2912 Insert the following new paragraph (1) under "Marking":

"(1) Each package shall be clearly and durably marked with the identification number of the goods to be entered in the transport document, preceded by the letters 'UN'."

Paragraphs (1) to (4) are renumbered (2) to (5).

In paragraph (3) (renumbered (4)), replace "55 °C" by "61 °C".

Insert a new paragraph (6)

"(6) New packages containing substances of 13^{*} carried in deeply refrigerated nitrogen shall also bear a label conforming to model No. 2."

Paragraphs (5) and (6) become paragraphs (7) and (8).

2914 (1) In the first sentence, add "- except for substances of 14^{*} -" after "identification numbers".

- 2914 (1) Insert after the first sentence:
(cont'd)

"If the substance is not mentioned by name, but is assigned to an n.o.s. entry, the description of the goods shall consist of the identification number and the n.o.s. designation, followed by the chemical or technical 5/ name of the substance, or for substances of 13°, by the biological name 5/ of the substance.

5/ The technical or biological name shall be a name currently used in scientific and technical handbooks, journals and texts. Trade names shall not be used for this purpose. In the case of pesticides, the name to be entered should be that given in Standard ISO 1750: 1981 if listed.

In the second part of paragraph (1), replace "see marginal 2000 (4)" with "see marginal 2000 (5)".

At the end of paragraph (1), add:

"For solutions and mixtures containing only one component subject to the provisions of ADR, the words 'solution' or 'mixture' shall be added as part of the name in the transport document [see marginal 2002(8)].

When a solid substance is handed over for carriage in the molten state, the description of the goods shall be completed by the word '~~m~~olten', unless it is already included in the name.

For the carriage of easily perishable substances of 13° appropriate information shall be given, e.g.: 'Cool at +2°/+4 °C' or 'Carry in frozen state' or 'Do not freeze'."

- 2921 Replace "11°" by "21°" five times."

PART III

APPENDICES TO ANNEX A

APPENDIX A.1

3102 The beginning should read as follows: "Conditions relating to nitrated cellulose mixtures of class 4.1.

(1) Nitrocellulose of marginal 2401, 24° (a), heated for half an hour" (remainder unchanged).

Insert new marginal 3103 and 3104 to read as follows:

Conditions relating to self-reactive substances of Class 4.1

Testing for assignment under Section E of marginal 2401

3103 "Self-reactive substances of items 31° to 50° can only be accepted for carriage and when the relevant criteria in Parts II and III of the 'Recommendations on the Transport of Dangerous Goods: Tests and Criteria' (second edition published by the United Nations Organization under the reference (ST/SG/AC.10/11/Rev.1) are met. The principles for classification of self-reactive substances are given in marginal 3104. The test selected for determining the self-accelerating decomposition temperature (SADT) shall be conducted in a manner which is representative, both in size and material, of the package to be carried.

Principles for classification of self-reactive substances of Class 4.1

3104 (1) A self-reactive substance or self-reactive substance formulation shall be regarded as possessing explosive properties when in laboratory testing it is liable to detonate, to deflagrate rapidly or to show a violent effect when heated under confinement.

(2) The following principles shall be applied to the classification of a self-reactive substance and self-reactive substance formulation not listed in marginal 2401:

3104
(cont'd)

(a) any self-reactive substance or self-reactive substance formulation which can detonate or deflagrate rapidly, as packaged for carriage, shall be prohibited from carriage in that packaging under Class 4.1 (defined as self-reactive substance type A, exit box A of figure 1);

(b) any self-reactive substance or self-reactive substance formulation possessing explosive properties and which, as packaged for carriage, neither detonates nor deflagrates rapidly, but is liable to undergo a thermal explosion in that packaging, shall also bear a label conforming to model No. 01. Such a self-reactive substance may be packaged in amounts of up to 25 kg unless the maximum quantity has to be limited to a lower amount to preclude detonation or rapid deflagration in the package (defined as self-reactive substance type B, exit box B of figure 1);

(c) any self-reactive substance or self-reactive substance formulation possessing explosive properties may be carried without a label conforming to model No. 01 when the substance as packaged (maximum 50 kg) for carriage cannot detonate or deflagrate rapidly or undergo a thermal explosion (defined as self-reactive substance type C, exit box C of figure 1);

(d) any self-reactive substance or self-reactive substance formulation which in laboratory testing:

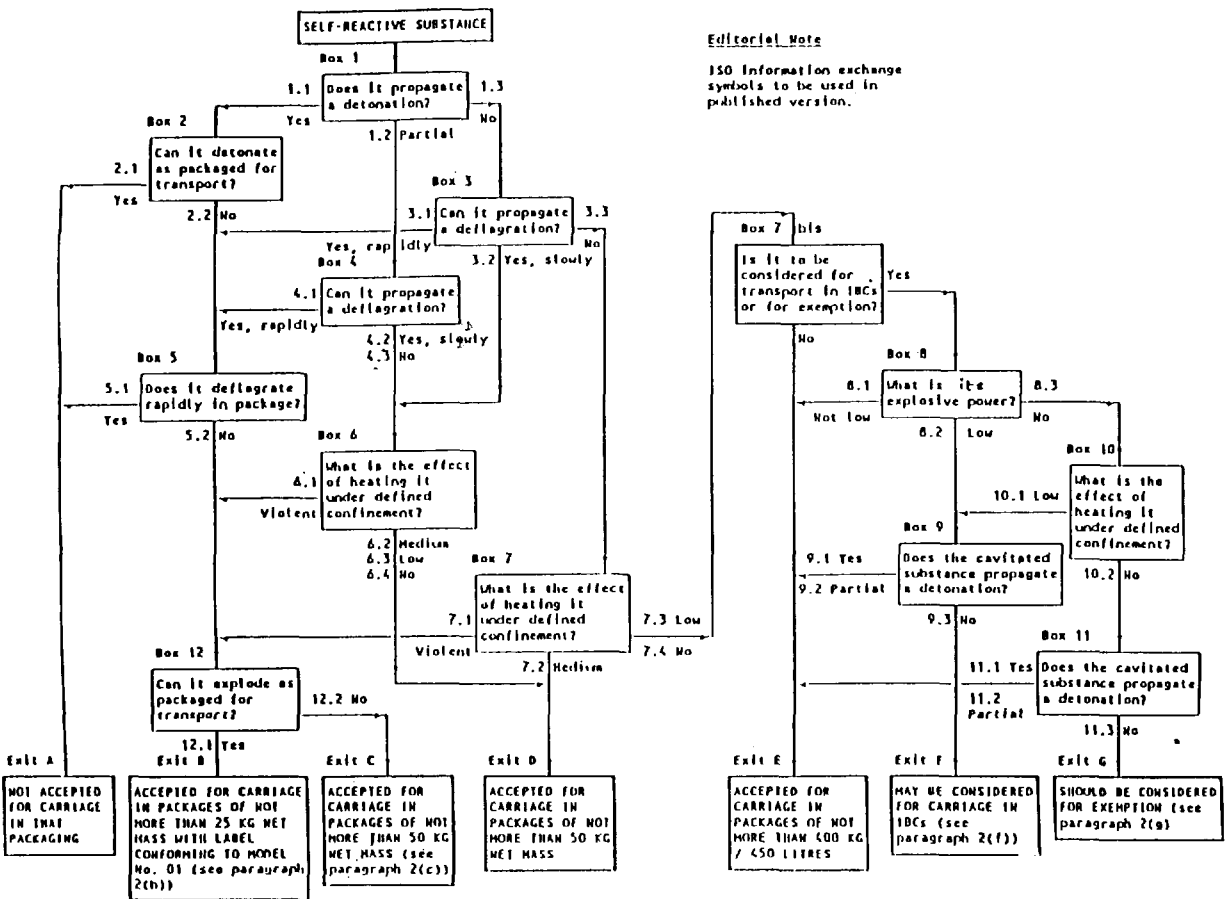
- detonates partially, does not deflagrate rapidly and shows no violent effect when heated under confinement; or
- does not detonate at all, deflagrates slowly and shows no violent effect when heated under confinement; or
- does not detonate or deflagrate at all and shows a medium effect when heated under confinement

may be accepted for carriage in packages containing not more than 50 kg (defined as self-reactive substance type D, exit box D of figure 1).

- 3104 (cont'd)
- (e) any self-reactive substance or self-reactive substance formulation which, in laboratory testing, neither detonates nor deflagrates at all and shows low or no effect when heated under confinement may be accepted for carriage in packages containing not more than 400 kg/450 litres (defined as self-reactive substance type E, exit box E of figure 1);
- (f) any self-reactive substance or self-reactive substance formulation which, in laboratory testing, neither detonates in the cavitated state nor deflagrates at all and shows only a low or no effect when heated under confinement as well as low or no explosive power may be accepted for carriage in IBCs (defined as self-reactive substance type F, exit box F of figure 1);
- (g) any self-reactive substance or self-reactive substance formulation which, in laboratory testing, neither detonates in the cavitated state nor deflagrates at all and shows no effect when heated under confinement, nor any explosive power shall not be considered as a self-reactive substance of Class 4.1, provided that the formulation is thermally stable (self-accelerating decomposition temperature is 60 °C to 75 °C for a 50 kg package) and any compatible diluent meets the requirements of marginal 2400(19) (defined as self-reactive substance type G, exit box G of figure 1). If the formulation is not thermally stable or a compatible diluent having a boiling point less than 150 °C is used for desensitization, the formulation shall be defined as a self-reactive substance type F.

Classification and flow chart scheme for
self-reactive substances

FIGURE 1



- 3104 (cont'd) (3) Paragraph (2) refers only to those properties of self-reactive substances which are decisive for classification. A flow chart, presenting the classification principles in the form of a graphically arranged scheme of questions concerning the decisive properties together with the possible answers, is given in figure 1. These properties shall be determined experimentally in accordance with marginal 3102."

Existing marginals 3103 and 3104 are renumbered 3105 and 3106. References to marginals 3103 and 3104 in marginals 2501 to 2599 should be renumbered accordingly.

The existing "figure 1" is renumbered as "figure 2".

- 3170 Amend as follows:

Ammunition, practice, insert "30°/0488"

Ammunition, smoke, with or without burster, expelling charge or propelling charge. Sentence 1 to read: "Ammunition containing a smoke-producing substance such as chlorosulphonic acid mixture or titanium tetrachloride; or a smoke-producing pyrotechnic composition based on hexachloroethane or red phosphorus."

Add:

"Articles, explosive, extremely insensitive (Articles EEI) 50°/0486

Articles containing only extremely insensitive detonating substances (EIDS) which demonstrate a negligible probability of accidental initiation or propagation under normal conditions of transport, and which have passed Test Series 7."

Cartridges, small arms: delete "15°/0328;"
insert: "27°/0417"

after "cartridges, small arms" insert the following new description:

"Cartridges, for weapons, blank 27°/0327; 37°/0338; 47°/0014

3170 (cont'd) Ammunition consisting of a closed cartridge case with a centre or rim fire primer and a charge of smokeless or black powder. The cartridge cases contain no projectiles. The cartridges are designed to be fired from weapons with a calibre of at most 19.1 mm and serve to produce a loud noise and are used for training, saluting, propelling charge, starter pistols," etc.

Charges, propelling, for rocket motors:

Delete "for rocket motors" in the title.

Insert: "37°/0491".

Description to read:

"Articles consisting of a propellant charge in any physical form, with or without a casing, as a component of rocket motors or for reducing the drag of projectiles."

Charges, propelling, for rocket motors, composite mixture: delete the whole entry.

Add the following new description after "Charges, supplementary, explosive"

"Components, explosive train, n.o.s. 1°/0461; 13°/0382; 35°/0383; 47°/0384

Articles containing an explosive designed to transmit detonation or deflagration within an explosive train."

Cord, detonating, flexible: description to read:

"Article consisting of a core of detonating explosive enclosed in spun fabric and a plastics or other covering. The covering is not necessary if the spun fabric is sift-proof."

Explosive, blasting, Type A: in the penultimate sentence, delete the word "plastic" and change "may" to "shall"

3170
(cont'd)

"Hexatonal, cast 4°/0393

amend to read "Hexotonal 4°/0393"

Hexolite dry or wetted ... 4°/0118

amend to read "Hexolite (hexotol), dry or wetted ... 4°/0118"

Jet perforating guns, charged, oil well, without detonator: insert
"39/0494"

Add: "Octonal 4°/0496

Substance consisting of an intimate mixture of
cyclotetramethylenetetranitramine (HMX), trinitrotoluene (TNT) and
aluminium."

Powder cake (powder paste), wetted ... with not less than 35%
water, by mass ...

replace "35%" with "25%".

Powder, smokeless

delete "generally"

Add: "Propellant, liquid 2°/0497, 26°/0495

Substance consisting of a deflagrating liquid explosive, used for
propulsion.

Propellant, solid 2°/0498, 26°/0499

Substance consisting of a deflagrating solid explosive, used for
propulsion."

Signals, railway track, explosive: insert: "30°/0492; 43°/0493"

Signals, smoke with explosive sound unit: delete the whole entry.

Signals, smoke without explosive sound device: delete the whole
entry.

3170 After "Signals, hand" insert the following new description:
(cont'd)

"Signals, smoke 9°/0196; 19°/0313; 30°/0487; 43°/0197

Articles containing pyrotechnic substances which emit smoke. In addition they may contain devices for emitting audible signals."

After "Sounding devices, explosive" (second entry) insert the following new description:

"Substances, explosive, very insensitive (Substances, EVI 48°/0482)

Substances presenting a mass explosion hazard but which are so insensitive that there is very little probability of initiation or of transition from burning to detonation under normal conditions of transport, and which have passed Test Series 5."

APPENDIX A.3

- 3300 (2) Replace "IP 1/ 170/90" by "IP 1/ 170/94"
- 3301 (a) Replace "IP 1/ 33/59" by "IP 1/ 170/94".
- 3302 Replace "(21 °C, 55 °C and 100 °C respectively)" with "(23 °C and 61 °C respectively)".
- 3304 Add a new marginal as follows:

"Method of testing for combustibility

- 3304 (1) The method describes a procedure for determining whether the substance, when heated under the test conditions and exposed to an external source of flame applied in a standard manner, sustains combustion.

(2) Principle of the method: a metal block with a concave depression (test portion well) is heated to a specified temperature. A specified volume of the substance under test is transferred to the well and its ability to sustain combustion is noted after application and subsequent removal of a standard flame under specified conditions.

(3) Apparatus: A combustibility tester consisting of a block of aluminium alloy or other corrosion-resistant metal of high thermal conductivity is used. The block has a concave well and a pocket drilled to take a thermometer. A small gas jet assembly on a swivel is attached to the block. The handle and gas inlet for the gas jet may be fitted at any convenient angle to the gas jet. A suitable apparatus is shown in figure 1 and the essential dimensions are given in figures 1 and 2.

The following equipment is needed:

- (a) Gauge, for checking that the height of the centre of the gas jet above the top of the test portion well is 2.2 mm (see figure 1);

3304 (b) Thermometer, mercury in glass, for horizontal operation, (cont'd) with a sensitivity not less than 1 mm/°C, or other measuring device of equivalent sensitivity permitting reading at 0.5 °C intervals. When in position in the block, the thermometer bulb should be surrounded with thermally conducting thermoplastic compound;

(c) Hotplate, fitted with a temperature-control device. (Other types of apparatus with suitable temperature-control facilities may be employed to heat the metal block);

(d) stopwatch, or other suitable timing device;

(e) Syringe, capable of delivering 2 ml to an accuracy of ± 0.1 ml; and

(f) Fuel source, butane test fuel.

(4) Sampling: The sample shall be representative of the substance to be tested and shall be supplied and kept in a tightly closed container prior to test. Because of the possibility of loss of volatile constituents, the sample shall receive only the minimum treatment to ensure its homogeneity. After removing each test portion, the sample container shall be immediately closed tightly to ensure that no volatile components escape from the container; if this closure is incomplete, an entirely new sample should be taken.

(5) Procedure: Carry out the determination in triplicate.

WARNING - Do not carry out the test in a small confined area (for example a glove box), because of the hazard of explosions.

(a) It is essential that the apparatus is set up in a completely draught-free area (see warning) and in the absence of strong light, to facilitate observation of flash, flame, etc.

(b) Place the metal block on the hotplate or heat the metal block by other suitable means so that its temperature, as indicated by the thermometer placed in the metal block, is maintained at the specified temperature with a tolerance of ± 1 °C. The test temperature is 60.5/75 °C [(see (h))]. Correct this temperature for

3304 the difference in barometric pressure from the standard atmospheric
(cont'd) pressure (101.3 kPa) by raising the test temperature for a high pressure or lowering the test temperature for a lower pressure by 1.0 °C for each 4 kPa difference. Ensure that the top of the metal block is exactly horizontal. Use the gauge to check that the jet is 2.2 mm above the top of the well when in the test position.

(c) Light the butane test fuel with the jet away from the test position (i.e. in the "off" position, away from the well). Adjust the size of the flame so that it is 8 mm to 9 mm high and approximately 5 mm wide.

(d) Using the syringe, take from the sample container at least 2 ml of the sample and rapidly transfer a test portion of $2 \text{ ml} \pm 0.1 \text{ ml}$ to the well of the combustibility tester and immediately start the timing device.

(e) After a heating time of 60 s, by which time the test portion is deemed to have reached its equilibrium temperature, and if the test fluid has not ignited, swing the test flame into the test position over the edge of the pool of liquid. Maintain it in this position for 15 s and then return it to the "off" position while observing the behaviour of the test portion. The test flame should remain alight throughout the test.

(f) For each test observe and record:

(i) whether there is ignition and sustained combustion or flashing, or neither, of the test portion before the test flame is moved into the test position;

(ii) whether the test portion ignites while the test flame is in the test position, and, if so, how long combustion is sustained after the test flame is returned to the "off" position.

(g) If sustained combustion interpreted in accordance with paragraph (6) is not found, repeat the complete procedure with new test portions, but with a heating time of 30 s.

3304 (h) If sustained combustion interpreted in accordance with
(cont'd) paragraph (6) is not found at a test temperature of 60.5 °C, repeat the complete procedure with new test portions, but at a test temperature of 75 °C.

(6) Interpretation of observations: The substance shall be assessed as sustaining combustions if, for either of the heating times, one of the following occurs with either of the test portions:

(a) When the test flame is in the "off" position, the test portion ignites and sustains combustion;

(b) The test portion ignites while the test flame is in the test position, maintained for 15 s, and sustains combustion for more than 15 s after the test flame has been returned to the "off" position;

Intermittent flashing shall not be interpreted as sustained combustion. Normally, at the end of 15 s, the combustion has either clearly ceased or continues. In cases of doubt, the substance shall be deemed to sustain combustion;

(c) Substances are considered not to sustain combustion if their fire point according to ISO 2592:1973 is greater than 100 °C or if they are water miscible solutions with a water content of more than 90% by mass.

Design and dimensions of the test apparatus
for determining the combustibility of
flammable liquids

Dimensions in millimetres

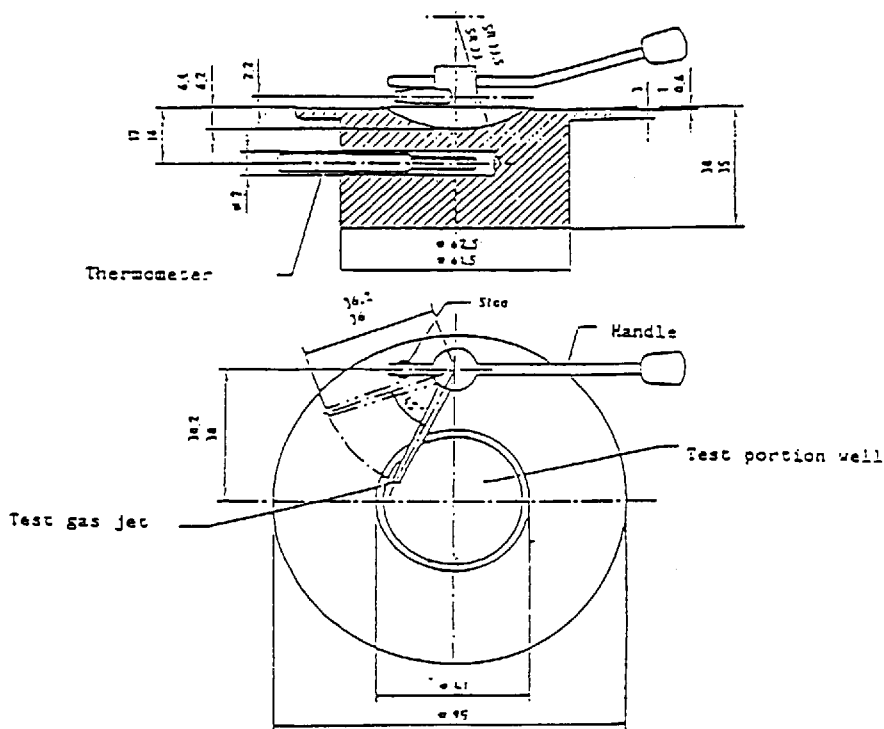


Figure 1 - Combustibility tester

Dimensions in millimetres

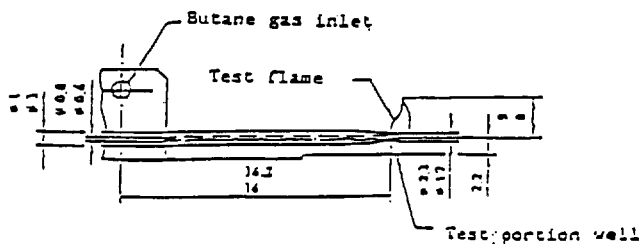


Figure 2 - Test gas jet and flame

Add the following new Section G:

"G. Test for determining the ecotoxicity, persistence and bioaccumulation of substances in the aquatic environment for assignment to Class 9

NOTE: The test methods used shall be those adopted by the OECD and the European Committees. If other methods are used, they shall be internationally recognized, be equivalent to the OECD/EC tests and be referenced in test reports.

3390 Acute toxicity for fish

The object is to determine the concentration which causes 50% mortality in the test species; this is the (LC_{50}), value, namely, the concentration of the substance in water which will cause the death of 50% of a test group of fish during a continuous period of testing of at least 96 hours. Appropriate types of fish include: striped brill (Brachydanio rerio), fathead minnow (Pimephales promelas) and rainbow trout (Oncorhynchus mykiss).

The fish are exposed to the test substance added to the water in varying concentrations (+1 control). Observations are recorded at least every 24 hours. At the end of the 96-hour activity and, if possible, at each observation, the concentration causing the death of 50% of the fish is calculated. The no observed effect concentration (NOEC) at 96 hours is also determined.

3391 Acute toxicity for daphnia

The object is to determine the effective concentration of the substance in water which renders 50% of the daphnia unable to swim (EC_{50}). The appropriate test organisms are daphnia magna and daphnia pulex. The daphnia are exposed for 48 hours to the test substance added to the water in varying concentrations. The no observed effect concentration (NOEC) at 48 hours is also determined.

3392 Algal growth inhibition

The object is to determine the effect of a chemical on the growth of algae under standard conditions. The change in biomass and the rate of growth with algae under the same conditions, but without the presence of the test chemical, are compared over 72 hours. The results are expressed as the effective concentration which reduces the rate of algal growth by 50%, $IC_{50\%}$, and also the formation of the biomass, IC_{50b} .

3393 Tests for ready biodegradability

The object is to determine the degree of biodegradation under standard aerobic conditions. The test substance is added in low concentrations to a nutrient solution containing aerobic bacteria. The progress of degradation is followed for 28 days by determining the parameter specified in the test method used. Several equivalent test methods are available. The parameters include reduction of dissolved organic carbon (DOC), carbon dioxide (CO_2) generation of oxygen (O_2) depletion.

A substance is considered to be readily biodegradable if within not more than 28 days the following criteria are satisfied - within 10 days from when degradation first reaches 10%:

Reduction of DOC:	70%
Generation of CO_2	60% of theoretical CO_2 production
Depletion of O_2	60% of theoretical O_2 requirement.

The test may be continued beyond 28 days if the above criteria are not satisfied, but the result will represent the inherent biodegradability of the test substance. For assignment purposes, the "ready" result is normally required.

Where only COD and BOD5 data are available, a substance is considered to be readily biodegradable if the ratio of BOD5 to COD is greater than or equal to 0.5.

3393 BOD (Biochemical Oxygen Demand) is defined as the mass of dissolved
(cont'd) oxygen required by a specific volume of solution of the substance for the process of biochemical oxidation under prescribed conditions. The result is expressed as grams of BOD per gram of test substance. The normal test period is five days using a national standard test procedure.

COD (Chemical Oxygen Demand) is a measure of the oxidizability of a substance, expressed as the equivalent amount in oxygen of an oxidizing reagent consumed by the substance under fixed laboratory conditions. The results are expressed in grams of COD per gram of substance. A national standard procedure may be used.

3394 Tests for bioaccumulation potential

(1) The object is to determine the potential for bioaccumulation either by the ratio at equilibrium of the concentration (c) of a substance in a solvent to that in water or by the bioconcentration factor (BCF).

(2) The ratio at equilibrium of the concentration (c) of a substance in a solvent to that in water is normally expressed as a \log_{10} . The solvent and water shall have negligible miscibility and the substance shall not ionize in water. The solvent normally used is n-octanol.

In the case of n-octanol and water, the result is:

$$\log P_{ow} = \log_{10} [C_o/C_w]$$

where P_{ow} is the partition coefficient obtained by dividing the concentration of the substance in n-octanol (C_o) by the concentration of the substance in water (C_w). If $\log P_{ow} \geq 3$ then the substance has a potential to bioaccumulate.

(3) The bioconcentration factor (BCF) is defined as the ratio of the concentration of the test substance in the test fish (c_f) to the concentration in the test water (c_w) at steady state:

$$BCF = (c_f)/(c_w).$$

3394 (cont'd) The principle of the test involves exposing fish to a solution or dispersion at known concentrations of the test substance in water. Continuous flow, static or semi-static procedures may be used according to the test procedure selected, based on the properties of the test substance. Fish are exposed to the test substance over a given period of time, followed by a period of no further exposure. During the second period, measurements are made of the rate of increase in the water of the test substance (i.e. the rate of excretion or depuration).

(Full details of the various test procedures and the calculation method for the BCF are given in the OECD Guidelines for Testing of Chemicals, methods 305A to 305E, 12 May 1981).

(4) A substance may have a $\log P_{ow}$ greater than 3 and a BCF less than 100 which would indicate little or no potential to bioaccumulate. In cases of doubt, the BCF value takes precedence over $\log P_{ow}$, as indicated in the flow chart shown in marginal 3396.

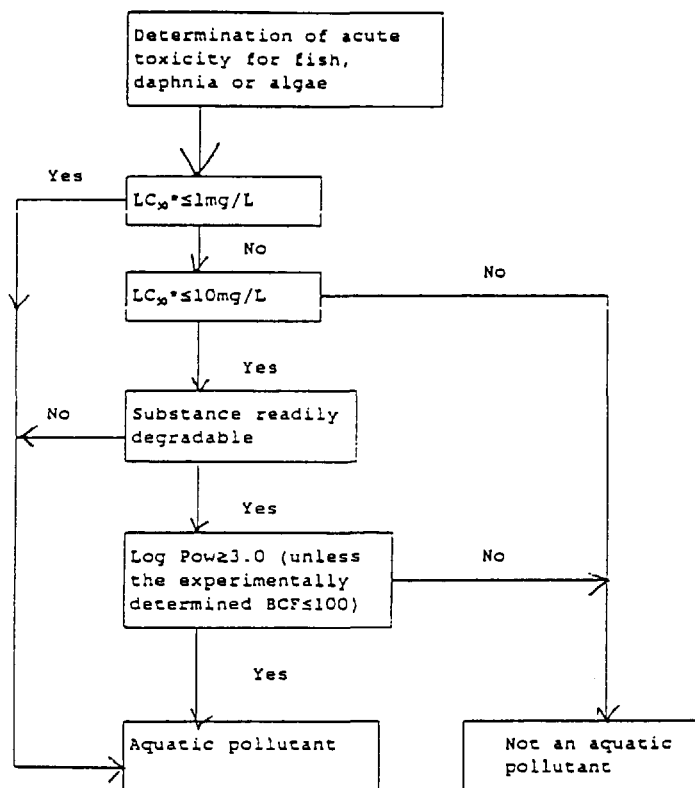
3395 Criteria

A substance may be regarded as a pollutant to the aquatic environment if it satisfies one of the following criteria:

The lowest of the values of the 96 hour LC_{50} for fish, the 48-hour EC_{50} for daphnia or the 72 hour IC_{50} for algae

- is less than or equal to 1 mg/L;
- is greater than 1 mg/L but less than or equal to 10 mg/L, and the substance is not readily biodegradable;
- is greater than 1 mg/L but less than or equal to 10 mg/L, and the $\log P_{ow}$ is greater than or equal to 3.0 (unless the experimentally determined BCF is less than or equal to 100).

3396

Procedure to be followed

* Lowest value of 96 hour LC_{50} , 48-hour EC_{50} or 72 hour IC_{50} as appropriate.

BCF = bioconcentration factor.

APPENDIX A.5

3500 In the NOTE before Section I, insert "6.2" before "8 or 9".

(1) After "particularly by" add: "vibration or"

(6) After "one another", add:

"and cause:

(a) combustion and/or evolution of considerable heat;

(b) emission of flammable, and/or toxic gases;

(c) the formation of corrosive substances; or

(d) the formation of unstable substances.

shall not be placed"

(9) After "New", add:

"remanufactured,..."

3500 (11) Add the following at the end of paragraph:
(contd)

"Examples of required marked test
pressures calculated as in 3500(11)(c)

UN No.	Liquid		Packing group	V_{p55} (kPa)	V_{p55} $\times 1.5$ (kPa)	$(V_{p55}$ $\times 1.5)$ minus 100(kPa)	Required minimum test pressure (gauge), under Marginal 3554(4)(c) (kPa)	Minimum test pressure (gauge) to be marked on the packaging (kPa)
	Name	Class						
2056	Tetrahydro- furan	3	II	70	105	5	100	100
2247	n-Decane	3	III	1.4	2.1	-97.9	100	100
1593	Dichlorome- thane	6.1	III	164	246	146	146	150
1155	Diethyl ether	3	I	199	299	199	199	250

NOTES OF THE LAST TABLE

NOTE 1. For pure liquids the vapour pressure at 55 °C (V_{p55}) can often be obtained from scientific tables.

NOTE 2. The maximum vapour pressure in paragraphs (b) and (c) refer to the basis of the formula.

NOTE 3. The table refers to the use of paragraph (c) only, which means that the marked test pressure should exceed 1.5 times the vapour pressure at 55 °C less 100 kPa. When, for example, the test pressure for n-Decane is determined according to marginal 3554 (4) (a) the minimum marked test pressure may be lower.

NOTE 4. For diethyl ether (1155) (Packing Group I), the required minimum test pressure under marginal 3554(4) is 250 kPa.

3500 (12) Renumber this paragraph as paragraph (14) and insert two new
(cont'd) paragraphs (12) and (13) as follows:

"(12) Packagings used for solids which may become liquid at temperatures likely to be encountered during carriage shall also be capable of containing the substance in the liquid state.

(13) The packagings shall be manufactured and tested under a quality assurance programme which satisfies the competent authority in order to ensure that each manufactured packaging meets the requirements of this appendix."

3510 (1) Replace the definition of boxes as follows:

"Boxes:

packagings with complete rectangular or polygonal faces, made of metal, wood, plywood, reconstituted wood, fibreboard, plastics or other suitable material. Small holes for purposes such as ease of handling or opening, or to meet classification requirements, are permitted as long as they do not compromise the integrity of the packaging during carriage;"

Add the following definitions:

"Reconditioned packagings include metal drums that are:

- (i) cleaned to original materials of construction, with all former contents, internal and external corrosion, and external coatings and labels removed;
- (ii) restored to original shape and contour, with chimes (if any) straightened and sealed, and all non-integral gaskets replaced; and
- (iii) inspected after cleaning but before painting, with rejection of packagings with visible pitting, significant reduction in material thickness, metal fatigue, damaged threads or closures, or other significant defects."

3510
(cont'd)

"Remanufactured packaging include metal drums that:

- (i) are produced as a UN type from a non-UN type;
- (ii) are converted from one UN type to another UN type; or
- (iii) undergo the replacement of integral structural components (such as non-removable heads).

Remanufactured packagings are subject to the same requirements of this Appendix that apply to a new packaging of the same type."

"Reused packagings:

packagings which have been examined and found free of defects affecting the ability to withstand the performance test; the term includes those which are refilled with the same or similar compatible contents and are carried within distribution chains controlled by the consignor of the product;"

- (3) Insert the following:

"Sift-proof packagings:

packagings impermeable to dry contents including fine solid material produced during carriage."

- 3511 (1) Amend the word "type" to read "kind".

- 3512 Add the following note at the beginning of marginal 3512:

"NOTE The marking indicates that the packaging which bears it corresponds to a successfully tested design type and that it complies with the provisions of this Appendix which are related to the manufacture, but not to the use, of the packaging. In itself, therefore, the mark does not necessarily confirm that the packaging may be used for any substance: generally the type of packaging (e.g. steel drum), its maximum capacity and/or mass, and any special requirements are specified for each substance in the appropriate packaging marginals in the classes."

3512 (1) Replace the first sentence with the following:
(cont'd)

"Each packaging shall bear markings which are durable, legible and placed in a location and of such a size relative to the packaging as to be readily visible. For packages with a gross mass of more than 30 kg, the markings or a duplicate thereof shall appear on the top or on a side of the packaging. Letters, numerals and symbols shall be at least 12 mm high, except for packagings of 30 litres or 30 kg capacity or less, when they shall be at least 6 mm in height and for packagings of 5 litres or 5 kg or less when they shall be of an appropriate size. The marking ..." (remainder unchanged).

(c) (ii) Second sentence: After "inner packagings", insert "and for light gauge metal packagings, removable head, intended for substances of Class 3, 5^{*}(c)".

(iii) Add the following:

"(iii) for packagings intended to contain substances of Class 6.2, 1^{*} and 2^{*}, 'Class 6.2' shall be used instead of the information required in (i) or (ii);"

(d) After "inner packagings", insert: "and for light gauge metal packagings, removable head, intended for substances of Class 3, 5^{*} (c)".

(2) Replace the existing text by the following:

"(2) Every reusable packaging liable to undergo a reconditioning process which might obliterate the packaging markings shall bear the marks indicated in (1) (a) to (e) in a permanent form. Marks are permanent if they are able to withstand the reconditioning process (e.g. embossed). For packagings other than metal drums of a capacity greater than 100 litres, these permanent marks may replace the corresponding durable markings prescribed in (1). In addition to the durable markings prescribed in (1), every new metal drum of a capacity greater than 100 litres shall, bear the marks described in (1) (a) to (e) on the base, with an indication

3512 of the nominal thickness of at least the metal used in the body
(cont'd) (in mm, to 0.1 mm), in permanent form (e.g. embossed). When the nominal thickness of either head of a metal drum is thinner than that of a body, the nominal thicknesses of the top head, body, and bottom head shall be marked on the bottom in a permanent form (e.g. embossed), for example '1.0 - 1.2 - 1.0' or '0.9 - 1.0 - 1.0'. Nominal thicknesses of metal shall be determined according to the appropriate ISO standard, e.g. ISO 3574 : 1986 steel drums. The marks indicated in (1) (f) and (g) shall not be applied in a permanent form (e.g. embossed) except as provided for below.

For remanufactured metal drums, if there is no change to the packaging type and no replacement or removal of integral structural components, the required markings need not be permanent (e.g. embossed). Every other remanufactured metal drum shall bear the markings in (1) (a) to (e) in a permanent form (e.g. embossed) on the top head or side.

Metal drums made from materials (e.g. stainless steel) designed to be reused repeatedly may bear the markings indicated in (1) (f) and (g) in a permanent form (e.g. embossed)."

(4) Add a new sub-paragraph as follows:

"(4) When, after reconditioning, the markings required by (1) (a) to (d) no longer appear on the top head or the side of a metal drum, the reconditioner shall apply them in a durable form followed by the markings required in (h), (i) and (j). These markings shall not identify a greater performance capability than that for which the original design type has been tested and marked."

(5) Amend as follows:

"(5) The letters "V" or "W" may follow the packaging code. The letter "V" signifies a special packaging [see 3558 (5)]. The letter "W" signifies that the packaging, although of the same type indicated by the code, is manufactured to a specification different to that in section III and is considered equivalent under the provisions of 3500(14)."

(7) Third example: For "4A1W" read "4AW".

- 3512 (7) Last example: After "200 mm²/s", add: "and for substances of Class 3, 5^{*}(c).
(cont'd)

Add the following examples:

"For a remanufactured steel drum intended to transport liquids:

u	1A2/Y/100/91	(a), (b), (c), (d) and (e)
n	USA/MM5	(f) and (g)"

"For fibreboard box intended to contain substances of 1^{*} and 2^{*} of Class 6.2:

u	4G/Class 6.2/S/92	(a) (i), (b), (c) (iii),
n	SP-9969-ERIKSSON	(d), (e), (f), (g)"

"For fibreboard box intended to contain inner packagings or solids:

u	4G/Y145/S/83	(a), (b), (c), (d), (e)
n	NL/VL823	(f) and (g)"

- 3514 Change the table headings as follows:

"Kind Material Category Code Marginal"

Delete "4A1, 4A2, 4B1 and 4B2" and insert instead:

"4A and 4B"

- 3525 (b) After the word "plastics" insert the following:

"or other suitable material"

- 3526 (b) Amend as follows:

"(b) Unless otherwise approved by the competent authority, the period of use permitted for the transport of dangerous substances shall not exceed five years, from the date of the manufacture of the packaging, except where a shorter period of use is prescribed because of the nature of the substance to be transported."

3527 (a) Add a second paragraph as follows:

"Fastenings shall be resistant to vibration experienced under normal conditions of carriage. End grain nailing shall be avoided whenever practicable. Joins which are likely to be highly stressed shall be made using clenched or annular ring nails or equivalent fastenings."

3530 (b) After "wood" in the first sentence, add:

"or other suitable material"

and after "wooden battens" in the second sentence add:

"or other suitable material".

(c) Renumber the last sentence as paragraph (d)

(d) Renumber the existing paragraph (d) as paragraph (e)

3532 Amend as follows the packaging codes:

"4A steel
4B aluminium"

(b) Delete "4A2 and 4B2"

3536 Amend as follows:

"(b) To prevent the entry of moisture, a bag of four plies or more shall be made waterproof by the use of either a water resistant ply as one of the two outermost plies or a water barrier made of a suitable protective material between the two outermost plies; a bag of three plies shall be made waterproof by the use of a water resistant ply as the outermost ply. Where there is a danger of the contained substance reacting with moisture or where it is packed damp, water resistant ply or barrier shall also be placed next to the substance. Joins and closures shall be waterproof."

3550 (2) Add a new last sentence as follows:

"A packaging design type is defined by the design, size, material and thickness, manner of construction and packing, but may include various surface treatments. It also includes packagings which differ from the design type only in their lesser design height."

(3) Add a final sentence as follows:

"For such tests on paper or fibreboard packagings, preparation at ambient conditions shall be considered equivalent to the requirements of marginal 3551(3)."

(6) Add as follows:

"(6) The competent authority may permit the selective testing of packagings that differ only in minor respects from a tested type, e.g. smaller sizes of inner packagings or inner packagings of lower net mass; and packagings such as drums, bags and boxes which are produced with small reductions in external dimension(s)."

(7) Add as follows:

"(7) Provided the validity of the test results is not affected and with the approval of the competent authority, several tests may be made on one sample."

3551 (1) Amend to read as follows:

"Tests shall be carried out on packagings and packages prepared as for despatch, including inner packagings of combination packagings. Inner or single receptacles or packagings shall be filled to not less than 95% of their maximum capacity for liquids or 98% for solids. For combination packagings where the inner packaging is designed to carry liquids and solids, separate testing is required for both liquid and solid contents. The substances or articles to be transported in the packagings may be replaced by other substances or articles except where this would invalidate the results of the tests. For solids, when another substance ..."
(remainder unchanged).

3551 (3) Add the following NOTE:

(cont'd)

"NOTE: Average values shall fall within these limits. Short term fluctuations and measurement limitations may cause individual measurements to vary by up to +/-5% relative humidity without significant impairment of test reproducibility."

(5) Add as follows, before the NOTE:

"Where the behaviour of the plastics material has been established by other means, the above compatibility test may be dispensed with. Such procedures shall be at least equivalent to the above compatibility test and be recognized by the competent authority."

3552 (1) Add immediately following the table:

"Where more than one orientation is possible for a given drop test, the orientation most likely to result in failure of the packaging shall be used."

(2) Replace the main text with the following:

"The temperature of the test sample and its contents shall be reduced to -18 °C or lower for the following packagings:

- (a) plastics drums (see 3526);
- (b) plastics jerricans (see 3526);
- (c) plastics boxes other than expanded polystyrene boxes (see 3531);
- (d) composite packagings (plastics material) (see 3537);
- (e) combination packagings with plastics inner packagings (see marginal 3538);
- (f) textile bags with inner plastics liner (see 3533);

- 3552 (g) woven plastics bags (see 3534), and
(cont'd) (h) plastics film bags (see 3535).

Where the test samples are prepared in this way, the conditioning in marginal 3551(3) may be waived. Test liquids shall be kept in the liquid state by the addition of anti-freeze if necessary."

- (4) (c) Add at the end: "and for substances of Class 3, 5° (c)"

- 3553 (1) After "200 mm²/s", add: "light gauge metal packagings, removable head, intended for substances of Class 3, 5° (c)".

- (4) Amend the text as follows:

"The test samples including their closures shall be restrained under water for 5 minutes while an internal air pressure is applied, the method of restraint shall not affect the results of the test. Other methods at least equally effective may be used."

- 3554 (1) After "200 mm²/s", add: "light gauge metal packagings, removable head, intended for substances of Class 3, 5° (c)".

- 3555 (3) Replace the existing text with the following:

"Test Method:

The test sample shall be subjected to a force applied to the top surface of the test sample equivalent to the total weight of identical packages which might be stacked on it during carriage.

The duration of the test shall be 24 hours, except that plastics drums and jerricans in accordance with marginal 3526, and composite packagings 6HH1 and 6HH2 in accordance with marginal 3537, intended for liquids, shall be subjected to the stacking test for a period of 28 days at a temperature of not less than 40 °C.

The minimum height of the stack including the test sample shall be 3 metres.

3555 (cont'd) For the test in accordance with marginal 3551 (5), the original filling substance shall be used. For the test in accordance with marginal 3551 (6), a stacking test shall be carried out with a standard liquid.

Where the contents of the test samples are non-dangerous liquids with relative density different from that of the liquid to be carried, the force shall be calculated in relation to the latter."

(4) Amend and move the existing footnote B/ to become a new final sentence in paragraph (4) as follows:

"Stacking stability shall be considered sufficient when, after the stacking test, and in the case of plastics packagings, after cooling to ambient temperature, two filled packagings of the same type placed on each test sample maintain their position for one hour."

3556 In the title, replace "55 °C" by "61 °C".

3558 Add the following new paragraphs (4) and (5):

(4) Add as follows:

"(4) Where an outer packaging of a combination packaging has been successfully tested with different types of inner packagings, a variety of such different inner packagings shall also be assembled in this outer packaging. In addition, provided an equivalent level of performance is maintained, the following variations in inner packagings are allowed without further testing of the package:

(a) Inner packagings of equivalent smaller size shall be used provided:

(i) The inner packagings are of similar design to the tested inner packagings (e.g. shape - round, rectangular etc.);

(ii) The material of construction of the inner packagings (glass, plastics, metal etc.) offers resistance to impact and stacking forces equal to or greater than that of the originally tested packaging;

- 3558 (cont'd)
- (iii) The inner packagings have the same or smaller openings and the closure is of similar design (e.g. screw cap, friction lid, etc.);
 - (iv) Sufficient additional cushioning material is used to take up void spaces and to prevent significant movement of inner packagings; and
 - (v) Inner packagings are oriented within the outer packaging in the same manner as in the tested package.
- (b) A lesser number of the tested inner packagings, or of the alternative types of inner packagings identified in (a) above, shall be used provided sufficient cushioning is added to fill the void space(s) and to prevent significant movement of the inner packagings."

(5) Add as follows:

"(5) Articles or inner packagings of any type for solids or liquids shall be assembled and presented for carriage without testing in an outer packaging under the following conditions:

- (a) The outer packaging shall have been successfully tested in accordance with marginal 3552 with fragile (e.g. glass) inner packagings containing liquids using the packing group I drop height.
- (b) The total combined gross mass of inner packagings shall not exceed one half of the gross mass of inner packagings used for the drop test in (a) above.
- (c) The thickness of the cushioning material between inner packagings and between inner packagings and the outside of the packaging shall not be reduced below the corresponding thickness in the originally tested packaging; and if a single inner packaging was used in the original test, the thickness of the cushioning between inner packagings shall not be less than the thickness of cushioning between the outside of the packaging and the inner packaging in the original test. If either fewer or smaller inner packagings are used (as compared to the inner packagings used in the drop test)

- 3558 (cont'd) sufficient additional cushioning material shall be used to take up void spaces.
- (d) The outer packaging shall have passed successfully the stacking test in marginal 3555 while empty. The total mass of identical packages shall be based on the combined mass of the inner packagings used for the drop test in (a) above.
 - (e) Inner packagings containing liquids shall be completely surrounded with a sufficient quantity of absorbent material to absorb the entire liquid contents of the inner packagings.
 - (f) If the outer packaging is intended to contain inner packagings for liquids and is not leakproof, or is intended to contain inner packagings for solids and is not sift-proof, a means of containing any liquid or solid contents in the event of leakage shall be provided in the form of a leakproof liner, plastics bag or other equally efficient means of containment. For packagings containing liquids, the absorbent material required in (e) above shall be placed inside the means of containing liquid contents.
 - (g) Packagings shall be marked in accordance with marginal 3512 as having been tested to Packing Group I performance for combination packagings. The marked gross mass in kilograms shall be the sum of the mass of the outer packagings plus one half of the mass of the inner packaging(s) as used for the drop test referred to in (a) above. The mark shall contain a letter "V" in accordance with marginal 3512 (5) as being a special packaging."

3559 Amend as follows:

"A test report containing at least the following particulars shall be drawn up and shall be available to the users of the packaging:

1. to 6. unchanged;
7. Maximum capacity;
8. Characteristics of test contents, e.g. viscosity and relative density for liquids and particle size for solids;
9. to 13. unchanged;

3559
(cont'd)

14. A unique test report identification;
15. Date of the test report;
16. The test report shall be signed with the name and status of the signatory."

Delete final sentence and replace as follows:

"The test report shall contain statements that the packaging prepared as for carriage was tested in accordance with the appropriate provisions of Appendix A.5 and that any use of other packaging methods may render it invalid. A copy of the test report shall be available to the competent authority."

3560

In the heading "B.", insert: ", remanufactured" after "new".

(1) Second indent; amend the beginning as follows:

"after remanufacturing or reconditioning, ..." (remainder unchanged).

Insert the following after the second indent:

"For this test, packagings need not have their own closures fitted.

The inner receptacle of composite packagings may be tested without the outer packaging provided the test results are not affected."

3571

Delete this marginal and "SECTION V Transitional period".

3571-
3599

ANNEX TO APPENDIX A.5

SECTION I

(d) Amend the specifications of white spirit as follows:

"boiling range 160-220 °C; relative density 0.78-0.80;
flashpoint >50 °C; aromatic content 16-21%."

(e) Amend the specification of nitric acid as follows:

"Nitric acid in a concentration of not less than 55% shall be used."

SECTION II

CLASS 3

Amend title A to read as follows:

"A. Substances having a flashpoint below 23 °C, not toxic, not corrosive"

Under 5°, read "Viscous substances" (delete ": Certain colours for rotogravures and for leathers").

Amend title B to read as follows:

"B. Substances having a flashpoint below 23 °C and toxic"

Under 17° (b), delete the synonym "(methyl alcohol)".

Replace title D by title E as follows:

"E. Substances having a flashpoint between 23 °C and 61 °C inclusive which might be slightly toxic or slightly corrosive"

Delete 32° (c) and substances listed under 32° (c).

Replace "33° (c)" by "(34° (c))".

CLASS 6.1

Replace the text under class 6.1 by the following:

"B. Organic substances which have a flashpoint of 23 °C or above or non-flammable organic substances.

12° Nitrogenous substances having a flashpoint above 61 °C:

(b)	aniline	Acetic acid
-----	---------	-------------

14° Oxygenated substances having a flashpoint above 61 °C:

(e)	ethylene glycol monobutyl ether	Acetic acid
	furfuryl alcohol	Acetic acid
	phenol solution	Acetic acid

27° Corrosive toxic organic substances, articles containing corrosive toxic organic substances (such as preparations and wastes), which cannot be classified under other collective headings

(b)	cresols or cresylic acid	Acetic acid"
-----	--------------------------	--------------

Insert a new text for class 6.2 as follows:

CLASS 6.2

"1° - 4°	All infectious substances considered to be liquids in accordance with marginal 2650 (5)	Water"
----------	---	--------

Amend the text for class 8 as follows:

CLASS 8

"A. Acid substances

Inorganic acids

1° (b)	Sulphuric acid	Water
	Sulphuric acid, spent	Water

2° (b)	Nitric acid with not more than 55% acid	Nitric acid
4° (b)	Perchloric acid with not more than 50% acid, by mass in aqueous solution	Nitric acid
5° (b) and (c)	Hydrochloric acid with not more than 36% pure acid Hydrobromic acid Hydriodic acid	Water
7° (b)	Hydrofluoric acid with not more than 60% hydrogen fluoride ^{1/}	Water
8° (b)	Fluoroboric acid with not more than 50% pure acid Fluorosilicic acid (hydrofluorosilicic acid)	Water Water
17° (b) and (c)	Chromic acid solution with not more than 30% pure acid	Nitric acid
17° (c)	Phosphoric acid	Water
Organic substances.		
32° (b)	Acrylic acid, formic acid, acetic acid, thioglycolic acid	Acetic acid
32° (c)	Methacrylic acid, propionic acid	Acetic acid
40° (c)	Alkylphenols, liquid	Acetic acid

^{1/} Maximum 60 litres; permissible period of use two years.

B. Basic substances

Inorganic substances

- | | | |
|---------|---|-------|
| 42° (b) | Sodium hydroxide solution, | |
| and (c) | potassium hydroxide solution | Water |
| 43° (c) | Ammonia solution | Water |
| 44° (b) | Hydrazine, aqueous solutions with
not more than 64% hydrazine, by mass | Water |

C. Other corrosive substances

- | | | |
|---------|--|-------------|
| 61° (c) | Chlorite and hypochlorite solutions 2/ | Nitric acid |
| 63° (c) | Formaldehyde solutions | Water" |

2/ Test to be carried out only with vent. If the test is carried out with nitric acid as the standard liquid, an acid-resistant vent shall be used. For hypochlorite solutions, vents of same design type, resistant to hypochlorite (e.g. of silicone rubber) but not resistant to nitric acid, are also permitted.

APPENDIX A.6

3600 (a) Amend as follows:

"(a) has a capacity of:

- (i) not more than 3.0 m³ (3,000 litres) for solids and liquids of Packing Groups II and III;
- (ii) not more than 1.5 m³ for solids of Packing Group I when packed in flexible, rigid plastics, composite, fibreboard and wooden IBCs;
- (iii) not more than 3.0 m³ for solids of Packing Group I when packed in metal IBCs;"

3601 (3) Replace the word "reconditioned" with "repaired".

3610 (1) Replace the definition of a flexible IBCs as follows:

"Flexible IBCs consist of a body constituted of film, woven fabric or any other flexible material or combinations thereof, and if necessary an inner coating or liner, together with any appropriate service equipment and handling devices."

(2) In the definition of "Liner", before the word "fibreboard" add "flexible".

Replace the definition of "Body" with the following:

"Body (for all categories of IBC other than composite IBCs) means the receptacle proper, including openings and their closures, but does not include service equipment (see below)."

3611 (2) Insert after "i.e.":

"X for substances of Packing groups I, II and III (IBC for solids only)".

3612 (1) (c) Amend text in brackets to read "(X, Y or Z)".

Add an example of a Packing Group I IBC:



11C/X/01 93
S/Aurigny 9876
3000/910

For a wooden IBC for solids with
an inner liner and authorized for
Packing Group I solids."

(3) Delete

3621 (9) Replace the word "reconditioned" with "repaired".

3623 (10) Add a new subparagraph (10) as follows:

"(10) The liner shall be made of a suitable material. The strength of the material used and the construction of the liner shall be appropriate to the capacity of the IBC and the intended use. Joins and closures shall be sift-proof and capable of withstanding pressures and impacts liable to occur under normal conditions of handling and carriage."

3624 (7) Amend as follows:

"(7) Unless otherwise approved by the competent authority, the period of use permitted for the transport of dangerous liquids shall not exceed five years from the date of manufacture of the receptacle of the IBC except where a shorter period of use is prescribed because of the nature of the liquid to be transported."

3625 (4) (i) Delete the words "body of",

(6) Amend as follows:

"(6) Unless otherwise approved by the competent authority, the period of use permitted for the transport of dangerous liquids shall not exceed five years from the date of manufacture of the receptacle of the IBC except where a shorter period of use is prescribed because of the nature of the liquid to be transported."

3650 (4) (b) Replace the text with the following:

"(b) where the substances to be carried have a relative density exceeding 1.2, the drop heights shall be calculated on the basis of the relative density (d) of the substance to be carried rounded up to the first decimal as follows:

3650

(cont'd)

Packing Group I	Packing Group II	Packing Group III
d x 1.5 m	d x 1.0 m	d x 0.67 m

"

3656

(2) Add the following:

"For this test the IBC need not have its closures fitted. The inner receptacle of composite IBCs may be tested without the outer packaging provided the test results are not affected."

3657

(4) (a) Replace the text with the following:

"1. For IBCs of types 21A, 21B and 21N, for Packing Group I solids, a 250 kPa (2.5 bar) gauge pressure;

2. For IBCs of types 21A, 21B, 21N, 31A, 31B and 31N, for Packing Group II or III substances, a 200 kPa (2 bar) gauge pressure;

3. In addition, for IBCs of types 31A, 31B and 31N, a 65 kPa (0.65 bar) gauge pressure. This test shall be performed before the 2 bar test."

(5) Replace the text as follows for metal IBCs:

"For IBCs of types 21A, 21B, 21N, 31A, 31B and 31N, when subjected to the test pressure specified in 4 (a) (1) or (2): no leakage.

For IBCs of types 31A, 31B and 31N, when subjected to the test pressure specified in 4 (a) 3: neither permanent deformation which would render the IBC unsafe for carriage, nor leakage."

3658

(3) Add the following new text:

"IBCs of 0.45 m³ or less capacity shall also be subject to a drop test on the most vulnerable part other than the part of the base of the IBC tested in the first drop (for metal IBCs); on the most vulnerable side (for flexible IBCs); flat on a side, flat on the top and on a corner (for all other types of IBC). The same or different IBCs may be used for each drop."

3658 (4) Replace the table with the following:
(cont'd)

"

Packing Group I	Packing Group II	Packing Group III
1.8 m	1.2 m	0.8 m

"

3659 (4) Replace the table with the following:

"

Packing Group I	Packing Group II	Packing Group III
1.8 m	1.2 m	0.8 m

"

3661 Delete existing text and replace with new text as follows:

"(1) A test report containing at least the following particulars shall be drawn up and shall be available to the users of the IBC:

1. Name and address of the test facility;
2. Name and address of the applicant (where appropriate);
3. A unique test report identification;
4. Date of the test report;
5. Manufacturer of the IBC;
6. Description of the IBC design type (e.g. dimensions, materials, closures, thickness, etc.), including method of manufacture (e.g. blow moulding) and which may include drawing(s) and/or photograph(s);
7. Maximum capacity;
8. Characteristics of test contents, e.g. viscosity and relative density for liquids and particle size for solids;
9. Test descriptions and results;
10. The test report shall be signed with the name and status of the signatory.

3661 (cont'd) (2) The test report shall contain statements that the IBC prepared as for carriage was tested in accordance with the appropriate provisions of Appendix A.6 and that the use of other packaging methods or components may render it invalid. A copy of the test report shall be available to the competent authority."

3662 (1) After "31HZ2," amend the text as follows:

"... 31HZ2 shall successfully undergo the leakproofness test, and be capable of meeting the appropriate levels according to marginal 3656(3) before they are used for carriage for the first time."

(2) Replace "after any reconditioning" with "after any repair, before it is reused for carriage",

3663 (1) Amend as follows:

"All metal IBC, all rigid ... (existing text) ... put into service, and thereafter at intervals not exceeding five years, with regard to ... (existing text)".

APPENDIX A.7

3700

Table IReplace:

" ¹⁹⁹ Au	10	200	0.9	200"
with				
" ¹⁹⁹ Au	10	200	0.9	20";
" ²⁴³ Cm	3	80	3×10^{-4}	8×10^{-2} "
with				
" ²⁴³ Cm	3	80	3×10^{-4}	8×10^{-3} ";
" ¹⁷⁵ Yb	30	800	0.9	2"
with				
" ¹⁷⁵ Yb	30	800	0.9	20";
" ²⁴⁷ Bk Berkelium(97)	2	50	2×10^{-4}	5×10^{-1} "
with				
" ²⁴⁷ Bk Berkelium(97)	2	50	2×10^{-4}	5×10^{-3} ";
" ¹²⁷ Xe Xenon(54)	0.2	5	0.2	5"
with				
" ¹²⁷ Xe	4	100	4	100";
" ²³⁵ U	Unlimited <u>3/</u>			Unlimited <u>3/</u> "
with				
" ²³⁵ U	Unlimited <u>3a/</u>			Unlimited <u>3a/</u> ";
"U (natural)	Unlimited			Unlimited"
with				
"U (natural)	Unlimited			Unlimited <u>3b/</u> ";

3700

(cont'd)

"U (enriched 5% or less) with "U (enriched 5% or less)	Unlimited <u>3b</u> /	Unlimited <u>3a</u> /"
	Unlimited <u>3a</u> /	Unlimited <u>3a</u> / <u>3b</u> /"
"U (enriched mor 5%) with "U (enriched more than 5%)	10 200	1×10^{-3} 2×10^{-2} "
	10 200	1×10^{-3} <u>3b</u> / 2×10^{-2} ;"
"U (depleted) with "U (depleted)	Unlimited	Unlimited"
	Unlimited	Unlimited <u>3b</u> /"

Insert:Below the line for ^{188}W :

" ^{122}Xe <u>2</u> / Xenon (54)	0.2	5	0.2	5"
" ^{123}Xe	0.2	5	0.2	5"

At the bottom of Table 1 replace reference 1/ as follows:

"1/ The Ci values quoted are obtained by rounding down from the TBq figure after conversion to Ci. This ensures that the magnitude of A_1 or A_2 in Ci is always less than that in TBq.";

At the bottom of Table 1 change "3/" to "3a/" and add reference 3b/ as follows:

"3b/ These values do not apply to reprocessed uranium".

Table I Minor changes:

Align the figures of the radionuclide ^{248}Cm ;
Delete the reference 2/ from the line of ^{175}Hf ;
Delete the symbol "x" from the last column of the ^{237}Np ;
Delete the reference 2/ from the line of ^{202}Pb ;
Delete the reference 2/ from the line ^{184}Re ";
Delete the reference 2/ from the line of ^{184}Re ;

- 3701 (2) In the seventh line after "half-life", insert the word "either".
- 3702 (1) (a) (i) In the last line change "or" to "and".
(5) In the fifth line after "3703", delete "(1)".
- 3710 (1) (b) In the second line, replace "its shielding, containment system," with "its shielding and containment,".
(c) Replace the existing paragraph with:
"(c) For each packaging containing fissile material, where, in order to comply with the provisions of marginal 3741, neutron poisons are specifically included as components of the package, tests shall be performed to confirm the presence and distribution of those neutron poisons.".
- 3712 (6) In the second line, after "Table IV", insert "or which shows radiation level in excess of 5 μ Sv/h (0.5 mrem/h)".
In the last line replace "5 μ /Sv/h" with "5 μ Sv/h" (Only English text).
(7) Replace with the following:
"(7) An overpack, container or vehicle dedicated to the transport of low specific activity material or surface contaminated objects under exclusive use shall be excepted from paragraphs (2) and (6) above solely with regard to its internal surface and only for as long as it remains under that specific exclusive use."
- 3713 (3) In the last line replace "levels specified in table IV." with "limits specified in Table IV."
(4) In the third line replace "columns 2 and 3 respectively in table V." with "columns 2 and 3 respectively in Table V."
- 3714 (5) Table VI, in the title of the Table VI delete the word "integrity"

3715 (1) (a) In the seventh line change "doe" to "dose"

(3) Table IX

In the first row and third line after "Index" add "(TI)";

In the third row and third line replace "and" with "or";

In the seventh row and third column replace: "Either the sum of
TI's or the larger of
the TI for radiation
control and the TI
for nuclear control"

with: "Either the sum of
the TI's or the
larger of the TI for
radiation exposure
control or the TI for
nuclear criticality
control";

In the eighth row and third line after "control" change "and" to
"or";

In the tenth row and third line after "control" change "and" to
"or".

3718 (c) In the second line, change "transpored" to "transported";

(10) Table X

In the row "More than 1 but not more than 10" change "III-YELLOW
and" to "III-YELLOW".

3719 (e) In the last line replace "palce" with "place";

SECTION IV

In the NOTE replace "and the 1988 Supplement" with "(As Amended
1990)".

- 3751 (b) At the end of the line delete "and".
- (c) At the end of the paragraph change "Appendix." to "Appendix; and".
- 3753 (b) At the end of the third line change "a)" to "(a).
- 3755 (b) In the first line change "marginal 3705" to "marginal 2705".
- 3757 (3) (a) After "of time" insert ",related to the shipment,".

APPENDIX A.9

3900 (1) After "1.5", add "1.6" and after "6.1", add "6.2". Delete "6.1A".

3902 Add:

"No. 1.6 (black on orange background: liable to explosion, division number '1.6' filling most of the upper half; compatibility group letter 'N' in the lower half; small figure '1' in bottom corner);

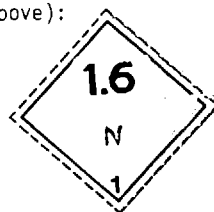
"No. 6.2 (Symbol of three crescents superimposed on a circle) infectious: to be kept apart in vehicles and at loading, unloading, or transloading points, from foodstuffs, other articles of consumption and animal feeds;"

Delete the current text which appears after "No. 6.2" and No. 6.1A.

Danger labels Delete the label No. 6.1A.

Insert:

Additional diagram "No. 1.6" in the same style as Nos. 1.4 and 1.5 in the Table of diagrams (see description above):



Insert model No. 6.2 as follows:



PART I

GENERAL PROVISIONS APPLICABLE TO THE CARRIAGE OF DANGEROUS SUBSTANCES
OF ALL CLASSES

10 011 In the preamble to the table, amend the first indent, to read:

"- special requirements ... subject, however, to compliance with the provisions of marginals 10 240 (1) (a) and 21 212" and delete the words: "- supervision of vehicles (marginals XX 321 of Parts I and II)".

Amend the table entries as follows:

1. Class 1, "substances" column, in the first line, "maximum total quantity of 50 kg", insert:

"48° (UN Nos. 0331 and 0332)".

2. Class 1, "substances" column, in the last line but two, replace "35° to 37°, 39° to 41°, 43°" by "35° to 43°".

3. Class 1, "substances" column, in the last line but one, replace "47°" by "46°, 47°".

4. Class 1, "substances" column, last line (maximum total quantity of 5 kg), amend to read:

"48° (UN No. 0482)".

10 011 Amend the table as follows:

		5 kg	20 kg	50 kg	100 kg	333 kg	500 kg	1 000 kg	Unlimited
3	6°, 12°, 13° and substances of "(a)" of 11°, 14° to 28° and 41° to 57°	X							
	Substances of "(b)" of 11°, 14° to 28° and 41° to 57°				X				
	1°(a), 2°(a) and 3°(b), 4°(a) and (b), 5°(a), and 7°(b)					X			
	31°(c) and 34°(c)							X	
	Other substances						X		

10 011

(cont'd)

		5 kg	20 kg	50 kg	10 0 kg	33 3 kg	50 0 kg	1 000 kg	Unlimit ed
4.1	1°(b) and 2°(c)								X
	6°(c) and 11°(c)					X			
	21° to 26°	X 1/							
	35°, 36°, 45°, 46°		X 1/						
	37° to 40°, 47° to 50°			X 1/					
6.2	2°		X						
	Substances of (b)				X				
8	6°, 14° and substances classified under (a)		X						
	Substances classified under (b)				X				
	Substances classified under (c)						X		
9	Substances or articles classified under 1°(b), 4°(c) or 5°			X					
	Substances or articles classified under 1°(c), 6° or 7°				X				
	11°(c) and 12°(c)							X	
	13°(b)				X				

1/ Excluding the mass of the refrigerating appliance if any.

10 012 Amend as follows:

1. Existing text becomes paragraph (1).

2. Add a new paragraph (2) as follows:

"(2) Where consignments from more than one consignor are carried in the same transport unit, the transport documents accompanying these consignments need not bear the inscription mentioned in paragraph (1)."

10 013 Delete paragraph (1) and delete "(2)" before the second paragraph.

10 014 Add the following definition: "The term 'base vehicle' means any incomplete motor vehicle or its trailer corresponding to a type approved in accordance with Appendix B.2".

10 220(2) Amend to read as follows:

"(2) Vehicles carrying liquids having a flash-point of 61 °C or below or the flammable substances of Class 2 as defined in marginal 2200(3) shall, in addition, comply with the requirements of marginals 220 532, 220 533 and 220 584 of Appendix B.2."

10 221(1) Amend to read as follows:

"(1) Motor vehicles (tractors and rigid vehicles) with a maximum mass exceeding 16 tons and trailers (i.e. full trailers, semi-trailers, and centre-axle trailers) with a maximum mass exceeding 10 tonnes ^{1/} making up the following types of transport unit:

- tank vehicles,
- vehicles carrying demountable tanks or batteries of receptacles,
- vehicles carrying tank-containers with a capacity of more than 3,000 litres, and,
- type III transport units, (see marginal 11 204 (3)),

^{1/} For semi-trailers and centre-axle trailers, the maximum mass refers to the weight transmitted to the ground by the axle or axles of the semi-trailer or centre-axle trailer, when that trailer is coupled to the drawing vehicle and carrying its maximum load.

10 221 (1) first registered after 30 June 1993, shall be fitted with an anti-
(cont'd) lock-braking system, the performance of which shall meet the provisions of marginals 220 520 and 220 521 of Appendix B.2.

10 221 (2) Amend to read as follows:

"(2) Each transport unit of a type specified in paragraph (1) above, which includes a motor vehicle and/or trailer of a type specified in (1) above, shall be fitted with an endurance braking system meeting the requirements of marginals 220 522 and 220 535 of Appendix B.2".

10 221 (3) Amend to read as follows:

"(3) Each transport unit of a type specified in paragraph (1) above in service after 31 December 1999 shall be equipped with the devices referred to in paragraphs (1) and (2)".

10 240 (1) (b) Add at the end of paragraph:

"Motor vehicles with a permissible maximum laden weight of less than 3.5 tonnes may be equipped with a portable fire extinguisher of a minimum capacity of 2 kg of powder."

(3) Amend the first sentence as follows:

"The portable fire extinguishers conforming to the provisions of paragraph (1) above shall be fitted with a seal verifying that they have not been used."

10 251 Read as follows:

"The requirements concerning the electrical equipment set out in marginal 220 511 of Appendix B2 shall apply to every transport unit carrying dangerous substances for which an approval according to marginals 10 282 or 10 283 is required. The requirements in marginal 220 512 to 220 516 of Appendix B.2 shall apply only to the following vehicles:

- (a) Transport units carrying tanks (fixed or demountable) or batteries of receptacles transporting either liquids having a flashpoint of 61° C or below, or inflammable substances of Class 2 as defined in marginal 2200 (3). Transport units carrying tanks (fixed or demountable) transporting diesel

10 251 fuel, gas-oil or heating oil light, with the identification
(cont'd) number 1202, registered before 1 July 1995 and not conforming
to this marginal, may, however, be used;

- (b) Transport units intended for the carriage of explosives and
having to comply with the requirements set out in
marginal 11 204 (3) for transport units of type III."

10 261 Add a new marginal 10 261 as follows:

"10 261 (1) Motor vehicles (tractors and rigid vehicles) with
a maximum mass exceeding 12 tonnes that will be
registered for the first time after 1 July 1995, shall
be equipped with a speed limitation device in accordance
with marginal 220 540 of Appendix B.2.

(2) The requirements of paragraph (1) above are also
applicable to vehicles with the same characteristics
registered between 1 January 1988 and 1 July 1995, as
from 1 July 1996."

10 281 Add a new paragraph 10 281 under the title "Approval of vehicles"
as follows:

"At the request of the manufacturer or his duly accredited
representative, base vehicles of new motor vehicles and their
trailers which are subject to approval according to
marginals 10 282 and 10 283, may be type approved by a competent
authority in accordance with Appendix B.2. This type-approval
shall be accepted as ensuring the conformity of the base vehicle
when the approval of the complete vehicle is obtained, provided
that no modification of the base vehicle alters its validity."

10 282 (2) Delete the last sentence.

10 315 Delete the second and third sentences of paragraph (3).

Paragraph (3) would then read:

(3) By means of appropriate endorsements on his certificate made
every five years by the competent authority or by any organization
recognized by that authority, a vehicle driver shall be able to
show that he has, in the year before the date of expiry of his
certificate, completed a refresher training course and has passed a
test approved by that authority."

10 315 Insert the following new paragraph (6):

"(6) The certificate shall be prepared in the language or one of the languages of the country of the competent authority which issued the certificate or recognized the issuing organization and, if this language is not English, French or German, also in English, French or German, except where otherwise provided by agreements concluded between the countries concerned with the transport operation."

Existing paragraphs (6) and (7) to be renumbered (7) and (8).

10 321 Replace at the beginning of the text "transport units" with "vehicles".

10 353 (2) Replace "55° C" with "61° C"

10 374 Delete.

10 381 (2) Delete the new (e) (see TRANS/WP.15/126/Add.12).

10 385 Add:

"(f) The measures to be taken to avoid or minimize damage in the event of spillage of substances considered to be pollutant to the aquatic environment in addition to the hazards indicated by the danger labels."

10 414 (1) Read as follows:

"(1) The various components of a load comprising dangerous substances shall be properly stowed on the vehicle and secured by appropriate means to prevent them from being significantly displaced in relation to each other and to the walls of the vehicle. The load may be protected, for example, by the use of side wall fastening straps, sliding slatboards and adjustable brackets, air bags and anti-slide locking devices. The load is also sufficiently protected within the meaning of the first sentence if each layer of the whole loading space is completely filled with packages."

(2) Delete this paragraph.

Renumber paragraphs (3) to (5) as paragraphs (2) to (4).

10 416 Insert a new marginal 10 416, as follows:

"Prohibition of smoking

10 416 Smoking shall be prohibited during handling operations in the vicinity of vehicles and inside the vehicles."

10 417 Replace "55° C" with "61° C".

10 500 (2) Amend the beginning of the sentence to read:

"(2) Tank-vehicles or transport units having one or more tanks carrying dangerous goods covered by Appendix B5 shall ..."
(remainder unchanged).

(3) Insert a new paragraph (3) as follows:

"(3) Transport units and containers carrying dangerous solid substances in bulk covered by Appendix B5 shall in addition display on the sides of each transport unit or container, clearly visible and parallel to the longitudinal axis of the vehicle, orange-coloured plates identical with those prescribed in paragraph (1). These orange-coloured plates shall bear the identification numbers prescribed for each of the substances carried in bulk in the transport unit or in the container."

Renumber existing paragraphs (3) to (12) as (4) to (13).

(4) Amend as follows:

"(4) For containers carrying dangerous solid substances in bulk and for tanks containers, the plates prescribed in paragraphs (2) and (3) may be replaced the provisions of last sentence of paragraph (6) concerning resistance to fire shall not apply."
(remainder unchanged).

(5) Read as follows:

"(5) For transport units carrying only one of the substances listed in Appendix B5, the orange-coloured plates prescribed in paragraphs (2) and (3) shall ..." (remainder unchanged).

10 500
(cont'd)

(7) Add at the end of text:

"and empty bulk vehicles and empty bulk containers, uncleaned".

(8) Add at the end of text:

"If plates are covered, the covering shall be total and remain effective after 15 minutes' engulfment in fire."

(10) Read as follows:

"(10) Bulk containers, tank-containers and batteries ..."
(remainder unchanged).

(11) Read as follows:

"(11) Bulk vehicles and vehicles with fixed ..." (remainder unchanged).

(12) Amend as follows:

"(12) The requirements of marginal 10 500 (10) and (11) are also applicable to empty fixed or demountable tanks, tank-containers and batteries of receptacles, uncleaned and not degassed and empty bulk vehicles and empty bulk containers, uncleaned."

10 602

Insert the following text after the first sentence:

"The period of validity of the temporary derogation shall be not more than five years from the date of its entry into force. The temporary derogation shall automatically come to an end from the date of the entry into force of a corresponding amendment to this annex".

PART II

SPECIAL PROVISIONS APPLICABLE TO THE CARRIAGE OF DANGEROUS SUBSTANCES OF CLASSES 1 TO 9 SUPPLEMENTING OR AMENDING THE REQUIREMENTS OF PART I

Class 1: Explosive substances and articles

- 11 204 (2) Amend (b), (c) and (d) as follows:

"(b) Engine and exhaust system

The engine and the exhaust system shall comply with the requirements of marginals 220 533 and 220 534 of Appendix B.2.

(c) Fuel tanks

The fuel tank shall comply with the requirements of marginal 220 532 of Appendix B.2.

(d) Driver's cab

The material used in the construction of the driver's cab shall comply with the requirements of marginal 220 531(1) of Appendix B.2. Auxiliary heating appliances shall comply with the requirements of marginal 220 536 of Appendix B.2."

- 11 205 Existing paragraph to become paragraph (1).

Delete NOTE and insert:

"(2) For carriage in containers the provisions of marginals 10 118 (3) and 11 118 shall apply. For free-flowing powdery substances of 2°, 4°, 8°, 26° and 29°, and for fireworks of 9°, 21° and 30°, the floor of a container shall have a non-metallic surface or covering."

- 11 211 Insert a new marginal as follows:

"For carriage in containers the provisions of marginals 10 118 (3) and 11 118 shall apply. For free-flowing powdery substances of 2°, 4°, 8°, 26° and 29°, and for fireworks of 9°, 21° and 30°, the floor of a container shall have a non-metallic surface or covering."

11 311 Add a new paragraph (3) as follows:

"(3) The presence of a driver's assistant on board shall not be required in the case of articles of 43*, identification No. 0336, carried in a type I transport unit."

11 401 Read:

"11 401 The total net mass in kg of explosive substance (or in the case of explosive articles, the total net mass of explosive substance contained in all the articles combined) which may be carried on one transport unit shall be limited as indicated in the table below (see also marginal 11 403 as regards the prohibition of mixed loading):

Maximum permissible net mass in kg of explosive in Class I goods
per transport unit

Division	1.1	1.2	1.3	1.4	1.5 and 1.6	
Item	1"-12"	13"-25"	26"-34"	35"-45"	46", 47"	48", 49", 50"
Transport Unit						51"
Type I	50	50	50	300*	Unlimited	80
Type II	1 000	3 000	5 000	15 000	Unlimited	5 000
Type III	15 000	15 000	25 000	15 000	Unlimited	15 000

* UN No. 0336: 3,000 kg (4,000 kg in a trailer)*.

11 402 Amend end of first sentence to read: "(in the order 1.1, 1.5, 1.2, 1.3, 1.6, 1.4)".

11 403 (1) Amend to read: "... Nos. 1, 1.4, 1.5 or 1.6 ...".

Add vertical and horizontal columns "N" and at point of intersections with "C" add "2/, 3/", with "D" add "2/, 3/", with "E" add "2/, 3/", with "N" add "2/" and with "S" add "x".

Add two new footnotes as follows:

"2/ Different types of 1.6N articles may be transported together as 1.6N articles only when it is proven by testing or analogy that there is no additional risk of sympathetic detonation between the articles. Otherwise they should be treated as hazard division 1.1."

- 11 403 (cont'd) "3/ When articles of compatibility group N are carried with substances or articles of compatibility groups C, D or E, the articles of compatibility group N should be considered as having the characteristics of compatibility group D."

- 11 414 Delete.

Marking and labelling

- 11 500 (1) Add at the beginning: "In addition of the provisions of marginal 10 500",
Amend to read: "... Nos. 1, 1.4, 1.5 or 1.6 ...".
- (2) Amend to read: "... in the order 1.1 (most dangerous), 1.5, 1.2, 1.3, 1.6, 1.4 (least dangerous)."
- (4) Amend to read: "... 43° No. 0301 and 0303".

Class 2: Gases: compressed, liquefied or dissolved under pressure

- 21 240 Delete.
- 21 403 Amend to read: "... conforming to models Nos. 1, 1.4, 1.5, 1.6 or 01".
- 21 407 (1), insert a second sentence to read:
"The permission and the notice provided for in (a) and (b) above respectively shall not be required if the substances are contained in cylinders, receptacles, 'assemblies of cylinders' or receptacles conforming to marginal 2207 having a capacity not exceeding 1,000 litres as described in marginal 2212 (1) (a), (b), (d) or (e)."

Class 3: Flammable liquids

- 31 321 Read as follows:

"The provisions of marginal 10 321 shall apply to the dangerous goods listed below in quantities exceeding those specified:

Substances of 1° to 5° (a) and (b), 7° (b), 21° to 26° and slightly toxic substances of 41° to 57°:	10 000 kg
---	-----------

- 31 321 Substances of 6° and 11° to 19°, 27°, 28°,
(cont'd) and toxic or very toxic substances of
41° to 57°: 5 000 kg".
- 31 403 Amend to read: "... conforming to models Nos. 1, 1.4, 1.5, 1.6 or
01".
- 31 410 Delete "or 6.1A"
- 31 414 Delete.
- 31 415 Replace "6° and 11° to 20°" by "6°, 11° to 19°, 27°, 28°, 32° and
the toxic or very toxic substances of 41° to 57°".
- 31 500 Read as follows:

"Vehicles with fixed or demountable tanks and tank-containers
containing or having contained (empty, uncleaned) substances of
this Class shall bear labels conforming to model No. 3.

Those containing or having contained the substances of this Class
listed in marginal 2312 (3) to (5) shall also bear labels in
accordance with that marginal."

Class 4.1: Flammable solids

- 41 105 Delete paragraphs (2) and (3), add new paragraphs (2) to (9) to
read as follows:
- "(2) Substances of 26° shall be shielded from direct sunlight and
heat during carriage.
- (3) Substances of 41° to 50° shall be forwarded so that the
control temperatures indicated in marginal 2400 (20), given for
listed substances in marginal 2401 and for non-listed substances in
the approved conditions of carriage [see marginal 2400 (16)], are
not exceeded.
- (4) Maintenance of the prescribed temperature is essential for the
safe carriage of many self-reactive substances. In general, there
shall be:
- thorough inspection of the transport unit prior to loading;

- 41 105
(cont'd)
- instructions to the carrier about the operation of the refrigeration system, including a list of the suppliers of coolant available en route;
 - procedures to be followed in the event of loss of control;
 - regular monitoring of operating temperatures; and
 - provision of a back-up refrigeration system or spare parts.

(5) Any control and temperature sensing devices in the refrigeration system shall be readily accessible and all electrical connections weather-proof. The temperature of the air space within the transport unit shall be measured by two independent sensors and the output shall be so recorded that temperature changes are readily detectable. The temperature shall be checked every four to six hours and logged. When substances having a control temperature of less than +25° C are carried, the transport unit shall be equipped with visible and audible alarms, powered independently of the refrigeration system, set to operate at or below the control temperature.

(6) If the control temperature is exceeded during carriage, an alert procedure shall be initiated involving any necessary repairs to the refrigeration equipment or an increase in the cooling capacity (e.g. by adding liquid or solid coolant). There shall also be frequent checking of the temperature and preparations for implementation of the emergency procedures. If the emergency temperature (see also marginals 2400 (20) and 2401) is reached, the emergency procedures shall be set in operation.

(7) The suitability of a particular means of temperature control for carriage depends on a number of factors. Amongst those to be considered are:

- the control temperature(s) of the substance(s) to be carried;
- the difference between the control temperature and the anticipated ambient temperature conditions;
- the effectiveness of the thermal insulation;
- the duration of carriage; and

41 105 - allowance of a safety margin for delays.
(cont'd)

(8) Suitable methods for preventing the control temperature being exceeded are, in order of increasing capability:

- (a) thermal insulation; provided that the initial temperature of the self-reactive substance(s) is sufficiently below the control temperature;
- (b) thermal insulation and coolant system; provided that:
 - an adequate quantity of non-flammable coolant (e.g. liquid nitrogen or solid carbon dioxide), allowing a reasonable margin for delay, is carried or the possibility of replenishment is assured;
 - liquid oxygen or air is not used as coolant;
 - there is a uniform cooling effect even when most of the coolant has been consumed; and
 - the need to ventilate the transport unit before entering is clearly indicated by a warning on the door(s);
- (c) thermal insulation and single mechanical refrigeration; provided that flameproof electrical fittings are used within the coolant compartment to prevent ignition of flammable vapours from the self-reactive substances.
- (d) thermal insulation and combined mechanical refrigeration system and coolant system; provided that:
 - the two systems are independent of one another; and
 - the requirements (b) and (c) are met;
- (e) thermal insulation and dual mechanical refrigeration system provided that:
 - apart from the integral power supply unit, the two systems are independent of one another;
 - each system alone is capable of maintaining adequate temperature control; and

41 105
(cont'd)

- flameproof electrical fittings are used within the coolant compartment to prevent ignition of inflammable vapours from the self-reactive substances.

(9) For substances of 41° and 42°, one of the following methods of temperature control described in paragraph (8) shall be used:

- method (c) when the maximum ambient temperature to be expected during carriage does not exceed the control temperature by more than 10° C; or
- method (d) or (e).

For substances of 43° to 50°, one of the following methods shall be used:

- method (a) when the maximum ambient temperature to be expected during carriage is at least 10° C below the control temperature;
- method (b) when the maximum ambient temperature to be expected during carriage does not exceed the control temperature by more than 30° C; or
- method (c), (d) or (e)."

41 204

Amend to read as follows:

"Substances of 31° to 40° shall be loaded in closed or sheeted vehicles. Where, under the provisions of 41 105, substances are required to be carried in insulated, refrigerated or mechanically-refrigerated vehicles, those vehicles shall satisfy the provisions of 41 248. Substances of 41° to 50° contained in protective packagings filled with a coolant shall be loaded in closed or sheeted vehicles. If the vehicles used are closed they shall be adequately ventilated. Sheeted vehicles shall be fitted with side boards and a tail-board. The sheets of these vehicles shall be of an impermeable and non-combustible material."

41 248 Add a new marginal as follows:

"Insulated, refrigerated and mechanically-refrigerated vehicles

41 248 Insulated, refrigerated and mechanically-refrigerated vehicles used in accordance with the provisions of 41 105 shall conform to the following conditions:

- (a) the vehicle shall be such and so equipped as regards its insulation and means of refrigeration (see marginal 41 105) that the maximum temperature prescribed in 41 105 is not exceeded. The overall heat transfer coefficient shall be not more than $0.4 \text{ W/m}^2 \text{ K}$;
- (b) the vehicle shall be so equipped that vapours from the substances or the coolant carried cannot penetrate into the driver's cab;
- (c) a suitable device shall be provided enabling the temperature prevailing in the loading space to be determined at any time from the cab;
- (d) the loading space shall be provided with vents or ventilating valves if there is any risk of a dangerous excess pressure arising therein. Care shall be taken where necessary to ensure that refrigeration is not impaired by the vents or ventilating valves;
- (e) the refrigerant shall not be flammable; and
- (f) the refrigerating appliance of a mechanically-refrigerated vehicle shall be capable of operating independently of the engine used to propel the vehicle."

41 321 Amend to read as follows:

"The provisions of 10 321 shall apply to the dangerous goods listed below in quantities exceeding those specified:

- substances of 21° to 25°: 1,000 kg
- substances of 26°: 100 kg
- substances of 31°, 32°, 43° and 44°: 1,000 kg

- 41 321 (cont'd)
- substances of 33°, 34°, 45° and 46°: 2,000 kg
 - substances of 35°, 36°, 47° and 48°: 5,000 kg
 - substances of 41° and 42°: 500 kg.

In addition, vehicles carrying more than 500 kg of substances of 41° and 42° shall be subject at all times to supervision to prevent any malicious act and to alert the driver and competent authorities in the event of loss or fire."

41 401 Amend to read as follows:

"(1) A transport unit shall carry not more than:

- 5,000 kg of substances of 31° and 32° if its loading space is ventilated at the top and the transport unit is insulated with heat-resistant material (see marginal 11 204 (3) (a)) or 1,000 kg of substances of 31° and 32° if the transport unit does not meet these requirements;
- 10,000 kg of substances of 33° and 34°;
- 20,000 kg of substances of 35°, 36°, 37°, 38°, 39° and 40°;
- 1,000 kg of substances of 41° and 42° or 5,000 kg if insulated with heat-resistant material;
- 5,000 kg of substances of 43° and 44° or 10,000 kg if insulated with heat-resistant material; and
- 20,000 kg of substances of 45°, 46°, 47°, 48°, 49° and 50°.

(2) When substances of this Class are carried together in one transport unit, the limits given in paragraph (1) shall not be exceeded and the total contents shall not exceed 20,000 kg."

41 402 Insert a new marginal 41 402 to read as follows:

"The provisions of marginals 10 500 and 41 204 shall not apply to the carriage of substances listed in or covered by 31° to 34° and 41° to 44° provided that the substance is packaged in accordance with packing method OP1A, OP1B, OP2A or OP2B, as required, and the quantity per transport unit is limited to 10 kg."

41 403 Read:

"(1) Packages bearing a label conforming to model No. 4.1 shall not be loaded together on one vehicle with packages bearing a label conforming to models Nos. 1, 1.4, 1.5, 1.6 or 01.

(2) Packages bearing labels conforming to models Nos. 4.1 and 01 shall not be loaded together in the same vehicle with packages bearing a label conforming to models Nos. 1, 1.4, 1.5, 1.6, 2, 3, 4.2, 4.3, 5.1, 5.2, 6.1, 7A, 7B, 7C, 8 or 9."

41 414 Amend to read as follows:

(1) Packages containing substances of 26° shall be stored only in cool, well-ventilated places away from heat sources.

(2) Packages containing substances of 41° to 50° shall not be placed on top of other goods; in addition, they shall be so stowed as to be readily accessible.

(3) For packages containing substances of 41° to 50°, the specified control temperature shall be maintained during the whole transport operation, including loading and unloading, as well as any intermediate stops [see marginal 41 105(2)].

(4) Packages shall be loaded so that a free circulation of air within the loading space provides a uniform temperature of the load. If the contents of one vehicle or large container exceed 5,000 kg of flammable solids, the load shall be divided into stacks of not more than 5,000 kg separated by air spaces of at least 0.05 m."

41 500 Amend as follows:

"Vehicles with fixed or demountable tanks and tank-containers, as well as vehicles and containers for the carriage of dangerous solid substances in bulk, containing or having contained (empty, uncleaned) substances of this Class shall bear labels conforming to model No. 4.1.

Those containing or having contained the substances of this Class listed in marginal 2412 (3) shall also bear labels in accordance with that marginal."

Class 4.2: Substances liable to spontaneous combustion

42 105 Insert a new marginal 42 105 as follows:

"Method of dispatch and restrictions on forwarding

42 105 Phosphorus of 22° may be carried only in tank-vehicles, demountable tanks and tank-containers."

42 403 Amend to read: "... conforming to models Nos. 1, 1.4, 1.5, 1.6 or 01".

42 414 Delete.

42 500 Amend as follows:

"Vehicles with fixed or demountable tanks and tank-containers, as well as vehicles and containers for the carriage of dangerous solid substances in bulk, containing or having contained (empty, uncleaned) substances of this Class shall bear labels conforming to model No. 4.2.

Those containing or having contained the substances of this Class listed in marginal 2442 (3) to (5) shall also bear labels in accordance with that marginal."

Class 4.3: Substances which, in contact with water, emit flammable gases

43 111 (1) Delete "15 (c)"

(3) Insert "ferrosilicon of 15° (c)", after "Aluminium dross of 13° (c)."

43 403 Amend to read: "... conforming to models Nos. 1, 1.4, 1.5, 1.6 or 01".

43 414 Delete the first and second sentences of the paragraph. The third sentence becomes the first sentence.

43 500 Amend as follows:

"Vehicles with fixed or demountable tanks and tank-containers, as well as vehicles and containers for the carriage of dangerous solid substances in bulk, containing or having contained (empty,

- 43 500 uncleaned) substances of this Class shall bear labels conforming to
(cont'd) model No. 4.3.

Those containing or having contained the substances of this Class listed in marginal 2482 (3) to (7) shall also bear labels in accordance with that marginal."

Class 5.1: Oxidizing substances

- 51 105 Insert a new marginal 51 105 as follows:

"Method of dispatch and restrictions on forwarding

51 105 Ammonium nitrate of 20° may be carried only in tank-vehicles, demountable tanks and tank-containers."

- 51 220 Amend as follows:

"For carriage of liquids of 1° (a):

(1) The provisions of marginals 220 531(2), 220 532 and 220 533 of Appendix B.2 shall apply;

(2) Unchanged.

(3) Text of existing (4). Existing (3) is deleted.

- 51 403 Amend to read: "... conforming to models Nos. 1, 1.4, 1.5, 1.6 or 01".

- 51 414 Amend to read: "The use of readily flammable materials for stowing packages in vehicles is prohibited".

- 51 500 Amend as follows:

"Vehicles with fixed or demountable tanks and tank-containers, as well as vehicles and containers for the carriage of dangerous solid substances in bulk, containing or having contained (empty, uncleaned) substances of this Class shall bear labels conforming to model No. 5.1.

Those containing or having contained the substances of this Class listed in marginal 2512 (3) shall also bear labels in accordance with that marginal."

Class 5.2: Organic peroxides

52 403 (1) Read: "... conforming to models Nos. 1, 1.4, 1.5, 1.6 or 01".

52 403 (2) Read: "... 1, 1.4, 1.5, 1.6, 2, 3, 4.1, 4.2, 4.3, 5.1, 6.1, 7A, 7B, 7C, 8 or 9".

(cont'd)

52 414 Delete (1) and (2).

Re-number (3) to (6) as (1) to (4), and amend the former (5), as the new (3) to read:

"(3) For packages containing substances of 11° to 20°, the control temperature shall be maintained during the whole transport operation, including loading and unloading, as well as any intermediate stops [see marginal 52 105(1)]."

52 500 Amend as follows:

"Vehicles with fixed or demountable tanks and tank-containers, as well as vehicles and containers for the carriage of solid dangerous substances in bulk, containing or having contained (empty, uncleaned) substances of this Class shall bear labels conforming to model No. 5.2.

Those containing or having contained the substances of this Class listed in marginal 2559 (3) to (4) shall also bear labels in accordance with that marginal."

Marginals 61 000 to 70 999: Replace by the following revised sections:

"Class 6.1: Toxic substancesGeneral

(Only the general provisions of Part I apply)

61 000-
61 099

Section 1: Mode of carriage

61 100-
61 110

Carriage in bulk

61 111 (1) Substances of 60° (c) and 3243 solids containing toxic liquid of 65° (b) may be carried in bulk as a full load.

(2) Substances of 60° (c) and 3243 solids containing toxic liquid of 65° (b) shall in such case be carried in sheeted, open vehicles. Vehicles containing 3243 solids containing toxic liquid of 65° (b) in bulk shall be leakproof or rendered leakproof, for example by means of a suitable and sufficiently stout inner lining.

(3) Solid wastes containing substances of 60° (c) may be carried under the same conditions as the substances themselves. Other solid wastes classified under the letter (c) of the various items may be carried in bulk only under the conditions of marginal 61 118.

61 112-
61 117

Carriage in containers

61 118 Containers intended for the carriage in bulk of solid wastes classified under (c) of the various items and 3243 solids containing toxic liquid of 65° (b) shall have complete walls and be sheeted or have a cover. Containers containing 3243 solids containing toxic liquid of 65° (b) in bulk shall be leakproof or rendered leakproof, for example by means of a suitable and sufficiently stout inner lining.

61 119-
61 199

Section 2: Special requirements to be fulfilled by the means of transport and its equipment

62 200-
61 259

Special equipment

- 61 260 Whenever motor fuel anti-knock mixtures of 31* (a) or receptacles having contained them are carried, the driver shall, when he is given the transport document, at the same time be given a portable equipment box fitted with a handle and containing:

Three copies of the written instructions specifying the action to be taken in the event of an accident or incident occurring during carriage (see marginal 61 385);

Two pairs of gloves and two pairs of boots made of rubber or some suitable plastics material;

Two respirators with an activated-charcoal cartridge of 500 cm³ capacity;

A bottle (made of bakelite, for example) containing 2 kg of potassium permanganate and bearing the inscription "dissolve in water before use";

Six fibreboard notices bearing the inscription "DANGER - volatile poison spilled. Do not approach without respirator" in the language or languages of each of the countries in whose territory carriage takes place.

This equipment box shall be kept in the driver's cab in a place where it can easily be found by the decontamination team.

61 261-
61 299

Section 3: General service provisions

61 300-
61 301

Action to be taken in the event of accident

61 302 (See marginal 61 385)

Precautions with respect to articles of consumption

61 303 (See marginal 61 410)

61 304-

61 320

Supervision of vehicles

61 321 The provisions of marginal 10 321 shall apply to the dangerous goods listed below in quantities exceeding those specified:

Substances of 1° to 5° and substances
classified under (a) of all items: 1,000 kg

Substances classified under (b)
of all items: 5,000 kg.

61 322-

61 384

Instructions in writing

61 385 Where motor fuel anti-knock mixtures of 31° (a), or receptacles which have contained them, are carried, the text of the written instructions shall specify, inter alia, the following:

(A) Precautions to be observed

The substance being carried is highly toxic. In the event of leakage from one of the receptacles the following precautions should be taken:

1. Avoid:

- (a) Contact with the skin;
- (b) Inhalation of vapours;
- (c) Introduction of the liquid into the mouth.

2. When drums which are torn open or damaged or wetted with liquid are being handled, the use of the following is compulsory:

- (a) Respirators;
- (b) Gloves made of rubber or some suitable plastics material;

61 385
(cont'd)

(c) Boots made of rubber or some suitable plastics material.

In the event of a serious accident involving obstruction of the public highway, it is essential that persons arriving to clear the site should be warned of the danger incurred.

(B) Action to be taken

All practicable steps, including the use of the notices referred to in marginal 61 260, shall be taken to keep persons at a distance of not less than 15 metres from the site of the accident; the notices contained in the equipment box shall be set up round the enclosure and onlookers shall be kept away.

The respirators, gloves and boots will enable one person to approach the load and verify its condition.

Should any of the drums be torn open, the following should be done:

(a) Additional respirators, gloves and boots with which to equip the workmen should be procured urgently;

(b) Drums still intact should be set aside;

(c) The liquid spilled on the vehicle or on the ground should be neutralized by copious swilling with an aqueous solution of potassium permanganate (a neutralizing agent a bottle of which is kept in the equipment box); the solution is easily prepared by stirring 0.5 kg of permanganate with 15 litres of water in a bucket; swilling should be carried out several times, because it takes 2 kg of potassium permanganate to neutralize completely 1 kg of the substance being carried.

Where practicable, the best way to decontaminate the area is to pour petrol over the spilled fluid and ignite it.

(C) Important notice

In case of accident, one of the first steps which must be taken is to notify by telegram or telephone ... (insert here the address and telephone numbers of the establishments to be notified in each of the countries in whose territory carriage is to take place).

61 385 A vehicle which has been contaminated with the substance carried
(cont'd) shall not be put back into service until it has been decontaminated
under the supervision of a competent person. Any wooden parts of
the vehicle which have been attacked by the substance carried shall
be removed and burnt.

61 386-
61 399

Section 4: Special provisions concerning loading, unloading and
handling

61 400-
61 402

Prohibition of mixed loading on one vehicle

61 403 Packages bearing a label conforming to model No. 6.1 shall not be
loaded together on one vehicle with packages bearing a label
conforming to models Nos. 1, 1.4, 1.5, 1.6 or 01.

61 404-
61 406

Places of loading and unloading

61 407 (1) The following operations are prohibited:

(a) Loading or unloading substances of 1° to 5° and any
substance classified under (a) of other items in a public place in
a built-up area without special permission from the competent
authorities;

(b) Loading or unloading the said substances in a public
place elsewhere than in a built-up area without prior notice having
been given to the competent authorities, unless the said operations
are justified for serious reasons of safety.

(2) If, for any reason, handling operations have to be carried
out in a public place, then substances and articles of different
kinds shall be separated according to the labels.

61 408-
61 409

Precautions with respect to articles of consumption

61 410 Substances of Class 6.1 shall be kept apart from foodstuffs, other articles of consumption and animal feeds in vehicles and at places of loading, unloading or transloading.

61 411-

61 414

Cleaning after unloading

61 415 (1) A vehicle which has been contaminated with substances of 31^{*} (a) or with a mixture thereof shall not be put back into service until it has been decontaminated under the supervision of a competent person. Any wooden parts of the vehicle which have been attacked by substances of 31^{*} (a) shall be removed and burnt.

(2) If substances in this Class have leaked and been spilled in a vehicle, it may not be reused until after it has been thoroughly cleaned and, if necessary, decontaminated. All other goods and articles carried in the same vehicle shall be examined for possible contamination.

61 416-

61 499

Section 5: Special provisions concerning the operation of vehicles (tank-vehicles) and containers (tank-containers)**Marking and labelling****Marking**

61 500 (1) Whenever substances of 31^{*} (a) are carried, the vehicle shall display on each side a warning notice to the effect that, if any liquid escapes, the greatest caution must be exercised and that the vehicle must not be approached without respirator, gloves and boots of rubber or some suitable plastics material.

Labelling

(2) Vehicles with fixed or demountable tanks and tank-containers, as well as vehicles and containers for the carriage of dangerous solid substances in bulk, containing or having contained (empty,

61 500 uncleaned) substances of this Class shall bear labels conforming to
(cont'd) model No. 6.1.

Those containing or having contained (empty, uncleaned) the substances of this Class listed in marginal 2612 (3) to (10) shall also bear labels in accordance with that marginal.

61 501-
61 508

Halts of limited duration for service requirements

61 509 Halts for service requirements shall so far as possible not be made in residential or urban areas. A halt near such a place may not be prolonged except with the agreement of the competent authorities.

61 510-
61 514

Protection against the action of the sun

61 515 During the period April to October inclusive, when a vehicle carrying hydrogen cyanide of 1st is stationary, the packages shall, if the legislation of the country in which the vehicle is halted so requires, be effectively protected against the action of the sun, e.g. by means of sheets placed not less than 20 cm above the load.

61 516-
61 599

Section 6: Transitional provisions, derogations, and provisions peculiar to certain countries

(Only the general provisions of Part I apply)

61 600-
61 999

Class 6.2: Infectious substances

General

(Only the general provisions of Part I apply)

62 000-
62 099

Section 1: Mode of carriage

62 100-
62 104

62 105 Packages containing substances of this Class shall be carried in closed or covered vehicles

62 106-
62 117

Carriage in containers

62 118 (1) Packages containing substances of this Class may be carried in small containers.

(2) The mixed loading prohibitions of marginal 62 403 shall also apply to the contents of small containers.

62 119-
62 199

Section 2: Special requirements to be fulfilled by the means of transport and its equipment

62 200-
62 239

Fire-fighting appliances

62 240 The provisions of marginal 10 240 (1) (b), (3) and (4), shall not apply.

62 241-
62 299

Section 3: General service provisions

62 300-
62 301

Action to be taken in the event of accident

62 302 (See marginal 62 385)

Precautions with respect to articles of consumption

62 303 (See marginal 62 410)

62 304-

62 320

Supervision of vehicles

62 321 The provisions of marginal 10 321 shall apply to all substances of 1°, whatever their mass. They shall also apply to substances of 2° whose quantity exceeds a mass of 100 kg. However, the provisions of marginal 10 321 need not be applied where the loaded compartment is locked and the packages carried are otherwise protected against any illicit unloading.

62 322-

62 352

62 353 The provisions of marginal 10 353 shall not apply.

62 354-

62 384

Instructions in writing

62 385 The instructions in writing shall also include:

(a) the provision that, in the cases provided for marginal 10 385 (1) (d) the local health or veterinary authorities shall be informed;

(b) information as to how the substance(s) are to be absorbed and contained, and how the dangers of the substance(s) of Class 6.2 are to be eliminated on the spot, e.g. suitable disinfectants;

(c) information on suitable protective equipment for the driver.

62 386-

62 399

Section 4: Special provisions concerning loading, unloading and handling

62 400-
62 402

Prohibition of mixed loading on one vehicle

- 62 403 (1) Packages bearing a label conforming to model No. 6.2 shall not be loaded together in the same vehicle with foodstuffs, other articles of consumption and animal feeds.
- (2) Packages bearing a label conforming to model No. 6.2 shall not be loaded together in the same vehicle with packages bearing a label conforming to models Nos. 1, 1.4, 1.5, 1.6 or 01.

62 404-
62 409

Precaution with respect to articles of consumption

- 62 410 Substances of class 6.2 shall not be loaded together in the same vehicle with foodstuffs, other articles of consumption and animal feeds (see 62 403(1)). They shall be kept apart from foodstuffs, other articles of consumption and animal feeds at places of loading, unloading or transloading.
- 62 411-
- 62 412 Substances of item 4^a shall be filled in tanks or in specially equipped vehicles in a manner which avoids risks to humans, animals and the environment, e.g. by loading in bags or by airtight connections.

62 413-

Handling and storage

- 62 414 (1) Packages containing substances of this Class shall be so stowed that they are readily accessible.
- (2) When packages of this Class are to be carried at ambient temperature of not more than 15° C or refrigerated, the temperature shall be maintained when unloading or during storage.
- (3) Packages of this Class shall be stored only in cool places away from sources of heat.

Cleaning after unloading

- 62 415 If substances of this Class have leaked and been spilled in a vehicle, it may not be reused until after it has been thoroughly cleaned and, if necessary, disinfected. All goods and articles carried in such a vehicle shall be checked for possible contamination. The wooden parts of the vehicle which have come into contact with the substances of items 1* and 2* shall be removed and burnt.

62 416-
62 499

Section 5: Special provisions concerning the operation of vehicles (tank-vehicles) and containers (tank-containers)

Marking and labelling

Labelling

- 62 500 Vehicles with fixed tanks or demountable tanks; specially equipped vehicles and tank-containers containing or having contained (empty, uncleaned) substances of 4*, shall bear labels conforming to model No. 6.2.

62 501-
62 508

Halts of limited duration for service requirements

- 62 509 Halts of vehicles carrying substances of 1* and 2* for service, requirements shall so far as possible not be made in residential or urban areas. A halt near such a place may not be prolonged except with the agreement of the competent authorities.

62 510-
62 599

Section 6: Transitional provisions, derogations and provisions peculiar to certain countries

(Only the general provisions of Part I apply)

62 600-
70 999*

Class 7: Radioactive material

71 315 Delete.

71 321 Amend as follows:

"The provisions of marginal 10 321 shall apply to all material, in whatever mass. In addition, these goods shall be subject at all times to supervision to prevent any malicious act and to alert the driver and the competent authorities in the event of loss or fire. However, the provisions of marginal 10 321 need not be applied where:

(a) The loaded compartment is locked and the packages carried are otherwise protected against illicit unloading; and

(b) The dose rate does not exceed 5 $\mu\text{Sv/h}$ (0.5 mrem/h) at any accessible point on the outer surface of the vehicle."

71 374 Delete.

71 403 Amend to read: "... conforming to models Nos. 1, 1.4, 1.5, 1.6 or 01".

Marginals 81 000 to 90 999: Replace by the following revised sections:

"Class 8: Corrosive substances

General

(Only the general provisions of Part I apply)

81 000-

81 099

Section 1: Mode of carriage

81 100-

81 110

Carriage in bulk

81 111 (1) Lead sulphate of 1° (b), substances of 13° (b) and 3244 solids with corrosive liquid of 65° (b) and solid wastes classified under the letter (c) of the various items may be carried in bulk as a full load. The body of the vehicle shall be equipped with a suitable and sufficiently stout inner lining. If the vehicle is sheeted the sheet shall be so placed that it cannot touch the load. Vehicles containing substances of 65° (b) (3244) shall be leakproof or rendered leakproof, for example by the means of a suitable and sufficiently stout inner lining.

(2) Solid wastes containing substances of 13° may be carried under the same conditions as the substances themselves. Other solid wastes classified under the letter (c) of the various items may only be carried in bulk under the conditions of marginal 81 118.

81 112-

81 117

Carriage in containers

81 118 Containers intended for the carriage in bulk of lead sulphate of 1° (b), substances of 13° (b), 3244 solids containing corrosive liquid of 65° (b) or solid wastes classified under (c) of the

- 81 118 various items shall have complete walls and a suitable lining and
(cont'd) be sheeted or have a cover.

Containers containing 3244 solids containing corrosive liquid of 65° (b) in bulk shall be leakproof or rendered leakproof, for example by the means of a suitable and sufficiently stout inner lining.

- 81 119-
81 199

Section 2: Special requirements to be fulfilled by the means of transport and its equipment

- 81 200-
81 299

Section 3: General service provisions

- 81 300-
81 320

Supervision of vehicles

- 81 321 The provisions of marginal 10 321 shall apply to the substances listed below in quantities exceeding those specified:

Substances classified under (a) of all items:	10,000 kg
Bromine of 14°:	1,000 kg.

- 81 322-
81 399

Section 4: Special provisions concerning loading, unloading and handling

- 81 400-
81 402

Prohibition of mixed loading on one vehicle

- 81 403 Packages bearing a label conforming to model No. 8 shall not be loaded together on the same vehicle with packages bearing a label conforming to models Nos. 1, 1.4, 1.5, 1.6 or 01.

- 81 404-
81 409

Precautions with respect to articles of consumption

- 81 410 Packages bearing labels conforming to model No. 6.1 shall be kept apart from foodstuffs, other articles of consumption and animal feeds in vehicles and at places of loading, unloading or transloading.

81 411-
81 412

Cleaning before loading

- 81 413 Vehicles intended to carry packages containing substances of 2* (a) 2., 3* (a), 4*, 73* or 74* shall be carefully cleaned and in particular be free of all combustible waste (straw, hay, paper, etc.).

Cleaning after unloading

- 81 415 If substances from packages bearing labels conforming to model No. 6.1 have leaked and been spilled in a vehicle, it may not be reused until after it has been thoroughly cleaned and, if necessary, decontaminated. All other goods and articles carried in the same vehicle shall be examined for possible contamination.

81 416-
81 499

Section 5: Special provisions concerning the operation of vehicles (tank-vehicles) and containers (tank-containers)

Marking and labelling

Labelling

- 81 500 Vehicles with fixed or demountable tanks or tank-containers, as well as vehicles and containers for the carriage of dangerous solid substances in bulk, containing or having contained (empty, uncleaned) substances of this Class shall bear labels conforming to model No. 8.

Those containing or having contained (empty, uncleaned) the substances of this Class listed in marginal 2812 (3) to (10) shall also bear labels in accordance with that marginal.

81 501-
81 599

Section 6: Transitional provisions, derogations and provisions
peculiar to certain countries

(Only the general provisions of Part I apply)

81 600-
90 999"

Class 9: Miscellaneous dangerous substances and articles

91 105 Read:

"Packages containing substances of this Class shall be carried in closed or covered vehicles."

91 111 Add: "and 12° (c)".

91 118 Add: "and 12° (c)".

91 240 Delete.

91 321 Add:

"Substances classified under (b) of 13°: 1,000 kg".

91 385 The current text becomes paragraphe (1).

Add the following paragraph (2):

(2) For substances of 11° and 12°, the instructions in writing shall also include, the measures to be taken to avoid or minimize damage in the event of spillage of these substances which are considered to be pollutant to the aquatic environment."

Add a new paragraph (3) as follows:

(3) For substances of 13°, the instructions in writing shall also include:

91 385 (a) the provision that, in the case of damage to or leakage from a package containing substances of 13°, the local health or veterinary authorities shall be informed;

(b) information as to how the substance(s) is/are to be absorbed and contained, and how the dangers of the substance(s) of 13° are to be eliminated on the spot, e.g. suitable disinfectants;

(c) information on suitable protective equipment for the driver."

91 403 Amend to read: "... conforming to models Nos. 1, 1.4, 1.5, 1.6 or 01".

Handling and storage

91 414 (1) Packages containing substances of 13° shall be so stowed that
(new) they are readily accessible.

(2) When packages containing substances of 13° are to be carried refrigerated, the functioning of the cooling chain shall be ensured when unloading or during storage.

(3) Packages containing substances of 13° shall only be stored in cool places away from sources of heat.

91 415 The current text becomes paragraph (1), with the inclusion of ", 1° to 12°", after "Class 9".

Add the following new paragraph (2).

"(2) If a substance of 13° has escaped and has contaminated a vehicle, this vehicle may be reused only after it has been thoroughly cleaned and, if necessary, disinfected. All goods and articles carried in such a vehicle shall be checked for possible contamination. The wooden parts of the vehicle which have come into contact with the substances of 13° shall be removed and burnt."

91 500 (2) Amend as follows:


"(2) Vehicles with fixed or demountable tanks and tank-containers, as well as vehicles and containers for the carriage of dangerous solid substances in bulk, containing or having contained substances of this Class, with the exception of substances of 4° (c), shall bear labels conforming to model No. 9.

- 91 500 (cont'd) Those containing or having contained the substances of this Class listed in marginal 2912 (4) to (6) shall also bear labels in accordance with that marginal."

Appendices B.1a/B.1b

Note: In the following amendments, the letter X in a marginal number indicates that the amendment applies to both appendices (e.g. 21X 310 means "211 310 and 212 310").

- 211 126 Amend this marginal to read:

"211 126 Shells intended for the carriage of liquids having a flash-point of 61 °C or below or for the carriage of flammable gases, shall be linked to the chassis by means of at least one good electrical connection. Any metal contact capable of causing electrochemical corrosion shall be avoided. Shells shall be provided with at least one earth fitting clearly marked with the symbol "", capable of being electrically connected."

- 212 126 Replace "55 °C" by "61 °C".

- 211 174 Insert before the present text the following sentence:

"During loading and unloading of tanks, appropriate measures shall be taken to prevent the release of dangerous quantities of gases and vapours."

- 211 187 Insert the following new marginal 211 187:

"Fixed tanks (tank-vehicles), demountable tanks and batteries of receptacles constructed before 1 January 1990 shall, if used after 31 December 2004, conform to the provisions of marginal 211 127 (5), applicable as from 1 January 1990, concerning wall thickness and protection against damage."

21X 310 Amend as follows:

"The following substances of marginal 2301 may be carried in fixed or demountable tanks/tank-containers:

- (a) Propyleneimine, inhibited, of 12°;
- (b) Substances classified under (a) of 11°, 14° to 22°, 26° and 27°, 41° to 57°;
- (c) Substances classified under (b) of 11°, 14° to 27°, 41° to 57°, and substances of 32° and 33°;
- (d) Substances of 1° to 5°, 31°, 34° and 61° (c), with the exception of isopropyl nitrate, n-propyl nitrate and nitromethane of 3° (b)."

21X 320 Amend as follows:

"Shells intended for the carriage of inhibited propyleneimine of 12° shall be designed for a calculation pressure (see marginal 21X 127 (2)) of not less than 1.5 MPa (15 bar) (gauge pressure)."

- | | | |
|---------|------------------|--|
| 21X 331 | (Last sentence) | } after "referred to in
marginal 21X 310 (c)", insert
the words "except those of 33°". |
| 21X 332 | (First sentence) | |
| 21X 370 | (First sentence) | |

21X 332 Insert a fourth sentence as follows:

"If shells intended for the carriage of substances of 33° are fitted with safety valves, these shall satisfy the requirements of marginals 21X 134 and 21X 135."

In the last sentence, replace "55 °C" by "61 °C".

21X 371 Amend as follows:

"Tank-vehicles and demountable tanks/tank-containers approved for the carriage of substances of 11°, 12°, 14° to 20°, 27°, 32° and 41° to 57° shall not be used for the carriage of foodstuffs, articles of consumption or animal feeds."

211 380 Insert a new marginal 211 380, as follows:

"211 380 Fixed tanks (tank-vehicles) and demountable tanks intended for the carriage of substances of 32° and 33° of marginal 2301, built according to the requirements of this Appendix applicable prior to 1 January 1995, but which do not, however, conform to the requirements applicable as from 1 January 1995, may still be used up to 31 December 2000."

212 380 Insert a new marginal 212 380, as follows:

"212 380 Tank-containers intended for the carriage of substances of 32° and 33° of marginal 2301, built according to the requirements of this Appendix applicable prior to 1 January 1995, but which do not, however, conform to the requirements applicable as from 1 January 1995, may still be used up to 31 December 1999."

21X 471 The beginning should read as follows:

"Shells containing substances of 31° to 33° of marginal 2431 and substances of 2°(b), 3°(a) and 3°(b) of marginal 2471 ..."
(remainder unchanged).

21X 510 (b) Delete "and liquid substances and solutions assimilable under (a) or (b) of these items"; delete the words "highly oxidizing or oxidizing".

21X 510 (d) Delete "and liquid substances and solutions assimilable under (a) or (b) of these items"; delete the words "slightly oxidizing".

21X 510 (e) Delete "as well as powdery or granular substances assimilable under (b) or (c) of these items"; delete the words "oxidizing and slightly oxidizing"..

Amend the title before marginals 21X 600 to read:

"Class 6.1: Toxic substances

"Class 6.2: Infectious substances".

21X 610 Amend as follows:

"(1) The following substances of marginal 2601 may be carried in fixed or demountable tanks/tank-containers:

(a) The substances listed by name in 2° to 4°;

(b) Highly toxic substances classified under (a) of 6° to 13° - with the exception of isopropyl chloroformate of 10° -, 15° to 17°, 20°, 22°, 23°, 25° to 28°, 31° to 36°, 41°, 44°, 51°, 52°, 55°, 61°, 65° to 68°, 71° to 87° and 90°, carried in the liquid state;

(c) Toxic or slightly toxic substances classified under (b) or (c) of 11°, 12°, 14° to 28°, 32° to 36°, 41°, 44°, 51° to 55°, 57° to 62°, 64° to 68°, 71° to 87° and 90°, carried in the liquid state;

(d) Toxic or slightly toxic powdery or granular substances classified under (b) or (c) of 12°, 14°, 17°, 19°, 21°, 23°, 25° to 27°, 32° to 35°, 41°, 44°, 51° to 55°, 57° to 68°, 71° to 87° and 90°.

NOTE: For the carriage in bulk of substances of 60° (c) and substances of 65° (b) (3243) and solid wastes classified under (c) of the various items, see marginal 61 111.

(2) Substances of marginal 2651, 3° and 4°, may be carried in fixed or demountable tanks/tank-containers."

21X 620 Amend as follows:

"Shells intended for the carriage of substances referred to in marginal 21X 610(1)(a) listed by name under 2° to 4° of marginal 2601 shall be designed for a calculation pressure (see marginal 21X 127 (2)) of not less than 1.5 MPa (15 bar) (gauge pressure)."

21X 621 Replace "21X 610 (b)" by "21X 610 (1) (b)".

21X 622 Replace "21X 610 (c)" by "21X 610 (1) (c) and 21X 610 (2)".

Add the following sentence:

"Shells intended for the carriage of chloroacetic acid of 24° (b) of marginal 2601 shall be provided with an enamel or equivalent protective lining if the material of the shell is attacked by chloroacetic acid."

21X 623 Replace "21X 610 (d)" by "21X 610 (1) (d)".

21X 630 Replace "21X 610 (a) and (b)" by "21X 610 (1) (a) and (b)".

21X 631 Replace "21X 610 (c) and (d)" by "21X 610 (1) (c) and (d) and (2)".

21X 650 In the first sentence, replace "21X 610 (a), (b) and (c)" by "21X 610 (1) (a), (b) and (c) and (2)".

21X 650 In the second sentence, after "31° (a)", add "of marginal 2601".

21X 651 Replace "21X 610 (d)" by "21X 610 (1) (d)".

21X 670 After "3°", add "of marginal 2601".

21X 671 Replace "21X 610 (a) and (b)" by "21X 610 (1) (a) and (b)".

21X 760 Replace "the trefoil symbol, as shown on labels Nos. 7A to 7D" by "the trefoil symbol described in marginal 2705(5)."

21X 810 Amend as follows:

The following substances of marginal 2801 may be carried in fixed or demountable tanks/tank-containers;

- (a) Substances listed by name in 6° and 14°;
- (b) Substances classified under (a) of 1°, 2°, 3°, 7°, 8°, 12°, 17°, 32°, 33°, 39°, 40°, 46°, 47°, 52° to 56°, 64° to 68° and 70°, 72° to 76°, carried in the liquid state;
- (c) Phosphorus oxybromide of 15° and substances classified under (b) or (c) of 1° to 5°, 7°, 8°, 10°, 12°, 17°, 31° to 40°, 42° to 47°, 51° to 56°, 61° to 76°, carried in the liquid state;

- 21X 810 (suite) (d) Powdery or granular corrosive or slightly corrosive substances classified under (b) or (c) of 9°, 11°, 13°, 16°, 31°, 34°, 35°, 39°, 41°, 45°, 46°, 52°, 55°, 62°, 65°, 67°, 69°, 71°, 73° and 75°.

NOTE: For the carriage in bulk of lead sulphate of 1° (b), of substances of 13° (b), and solid wastes and solids containing a corrosive liquid of 65° (b) of identification No. 3244 classified under (c) of the various items, see marginal 81 111.

- 21X 820 Amend the text to read:

Shells intended for the carriage of substances listed by name in 6° and 14° shall be designed for a calculation pressure (see marginal 21X 127 (2)) of not less than 2.1 MPa (21 bar) (gauge pressure).

Shells intended for the carriage of substances of 14° shall be provided with a lead lining not less than 5 mm thick or an equivalent lining. The requirement of Appendix B.1d shall apply to the materials and construction of welded shells, intended for the carriage of substances of 6°.

- 21X 822 Second sentence, delete.

- 21X 830 Replace "24°" by "14°".

- 21X 850 Replace "anhydrous hydrofluoric acid or aqueous solutions of hydrofluoric acid" by "substances". Delete the second subparagraph.

- 21X 851 Replace "bromine of 24°" by "substances of 14°".

- 21X 860 Insert the following new 21X860 as follows:

"Shells intended for the carriage of substances of 6° and 14° shall bear, in addition to the particulars referred to in marginal 21X 160, the date (month, year) of the most recent inspection of the internal condition."

- 21X 861 Existing 21X 860 is renumbered 21X 861 and is amended as follows:

"Shells intended for the carriage of inhibited sulphur trioxide of 1° (a) and substances of 6° and 14° shall bear in addition, on the plate referred to in marginal 21X 160, the maximum permissible load mass in kg of the shell."

21X 870 Amend as follows:

"Shells intended for the carriage of inhibited sulphur trioxide of 1° (a) shall not be filled to more than 88% of their capacity; those intended for the carriage of substances of 14° shall be filled to not less than 88% and not more than 92% of their capacity or to 2.86 kg per litre of capacity.

"Shells intended for the carriage of substances of 6° shall not be filled to more than 0.84 kg per litre of capacity."

21X 871 Amend as follows:

"Shells intended for the carriage of substances of 6°, 7° and 14° shall be hermetically closed (see marginal 21X 127 (2)) during carriage and the closures shall be protected with lockable caps."

21X 910 Amend to read:

"Substances of 1°, 2°, 4° (c), 11° and 12° of marginal 2901 may be carried in fixed or demountable tanks and in tank-containers."

In the NOTE, add "and 12°".

21X 920 Amend to read:

"Shells intended for the carriage of substances of 1°, 4°, 11° and 12° shall be designed in accordance with the requirements of Part I of this Appendix."

21X 951 Amend to read:

"Shells intended for the carriage of substances of 1°, 4°, 11° and 12° shall be subject to the initial and periodic hydraulic pressure tests at the calculation pressure used in their design as defined in marginal 21X 123."

Appendix B.1c

213 010 (e) To read:

"Substances of 1° (b) and (c), 2° (b), 5°, 8° (b) and (c), 17° (c), 42°, 43° (c) and 61° of Class 8."

REPLACE APPENDIX B.2 by the following:

"APPENDIX B.2

UNIFORM PROVISIONS CONCERNING THE CONSTRUCTION OF VEHICLES
INTENDED FOR THE CARRIAGE OF DANGEROUS GOODS INCLUDING PROVISIONS
FOR THEIR TYPE APPROVAL WHERE APPROPRIATE

220 000-
220 099

Section 1: Scope

220 100 (1) The provisions of this Appendix apply to the construction of base vehicles of motor vehicles and their trailers intended for the carriage of dangerous goods, which are subject to approval according to marginals 10 282, 11 282, 10 283, and to "type II" transport units according to marginal 11 204(2), and to their type approval.

(2) For the type-approval of a vehicle type in accordance with marginal 10 281, all sections of this Appendix shall apply.

(3) In the case of single vehicles which have not been subject to the type-approval procedure in accordance with marginal 10 281, only the provisions of section 5 of this Appendix apply.

220 101-
220 199

Section 2: Definitions

220 200 For the purpose of this Appendix:

(1) "Vehicle" means a chassis-cab vehicle, a tractor for semi-trailer or a trailer-chassis or a trailer with a self-supporting body intended for the transport of dangerous goods;

(2) "Vehicle type" means vehicles which do not differ essentially with regard to the constructional features specified in this Appendix.

Section 3: Application for type-approval

220 300 The application for type-approval of a vehicle type with regard to its specific constructional features shall be submitted by the vehicle manufacturer or by his duly accredited representative.

220 301 The application for type-approval shall be accompanied by the under-mentioned documents in triplicate and by the following particulars :

(1) a detailed description of the vehicle type with respect to its relevant structure, engine (compression-ignition, positive-ignition), dimensions, configuration and constituent materials;

(2) The type of vehicle according to the dangerous goods which the vehicle is intended to transport, i.e.:

Type EX/II for vehicles intended for the carriage of explosives as type II transport units (see marginal 11 204);

Type EX/III for vehicles intended for the carriage of explosives as type III transport units (see marginal 11 204);

Type FL for vehicles intended for the carriage of liquids with a flashpoint of not more than 61 °C or flammable gases, in fixed tanks, demountable tanks or batteries of receptacles;

Type OX for vehicles intended for the carriage of substances of class 5.1, marginal 2501, item 1^a(a), in fixed tanks, demountable tanks or batteries of receptacles;

Type AT for vehicles intended for the carriage of dangerous goods in tank-containers with a capacity of more than 3 000 litres, or vehicles other than those of types EX/II, EX/III, FL or OX intended for the carriage of dangerous goods in fixed tanks, demountable tanks or batteries of receptacles

(3) drawings of the vehicle; and

(4) particulars of :

(a) the technical maximum mass (kg) ;

(b) the type(s) of endurance braking system(s)

220 302 A vehicle representative of the type to be approved shall be submitted to the technical service responsible for conducting the approval tests.

220 303 The competent authority shall verify the existence of satisfactory arrangements for ensuring effective control of the conformity of production before type approval is granted.

220 304-

220 399

Section 4: Type-approval

220 400 If the vehicle submitted for approval pursuant to this Appendix meets the provisions of section 5 below, approval of that vehicle type shall be granted.

220 401 An approval number shall be assigned to each type approved. Its first two digits (00 for the Appendix in its present form) shall indicate the series of amendments incorporating the most recent major technical amendments made to the provisions at the time of issue of the approval. The same Contracting Party may not assign the same number to another vehicle type within the meaning of marginal 220 200 (2) above.

220 402 Notice of approval or of extension of approval of a vehicle type pursuant to this Appendix shall be communicated to the Contracting Parties by means of a form conforming to the model reproduced in marginal 221 000.

220 403 There shall be affixed, conspicuously and in a readily accessible place specified on the approval form, to every vehicle conforming to a vehicle type approved under this Appendix an international approval mark consisting of:

(1) a circle surrounding the letters "ADR" followed by the distinguishing number of the country which has granted approval */;

*/ 1 for Germany, 2 for France, 3 for Italy, 4 for the Netherlands, 5 for Sweden, 6 for Belgium, 7 for Hungary, 8 for the Czech Republic, 9 for Spain, 10 for Yugoslavia, 11 for the United Kingdom, 12 for Austria, 13 for Luxembourg, 14 for Switzerland, 15 (reserved), 16 for Norway, 17 for Finland, 18 for Denmark, 20 for Poland, 21 for Portugal, 22 (reserved), 23 for Greece, 24 (reserved), 25 for Croatia, 26 for Slovenia, 27 for Slovakia, 28 for Belarus, 29 and 30 (reserved), 31 for Bosnia Herzegovina. Subsequent numbers shall be assigned by the Secretary General of the United Nations to other countries which become Contracting Parties to the ADR.

220 403 (2) the approval number to the right of the circle prescribed in (cont'd) paragraph (1); and

(3) an additional symbol separated from the approval number and consisting of the symbol identifying the vehicle type approved in accordance with marginal 220 301(2).

220 404 The approval mark shall be clearly legible and be indelible.

220 405 The approval mark shall be placed close to or on the vehicle data plate affixed by the manufacturer.

220 406-

220 499

Section 5: Technical provisions

220 500 Motor vehicles and trailers intended for use as transport units for dangerous goods shall, depending on their category and type, comply with the following provisions according to the table below.

TECHNICAL SPECIFICATIONS	TYPE OF VEHICLE ACCORDING TO MARGINAL 220 301 (2)				
	EX/II	EX/III	AT	FL	OX
220 510 ELECTRICAL EQUIPMENT					
220 511 - wiring		X	X	X	X
220 512 - battery master switch		X		X	
220 513 - batteries	X	X		X	
220 514 - tachographs		X		X	
220 515 - permanently energized installations		X		X	
220 516 - electrical installation behind cab		X		X	
220 520 BRAKING					
220 521 - Anti-lock		X	X	X	X
220 522 - endurance		X	X	X	X
220 530 FIRE RISKS					
220 531 - cab : materials	X	X			
- cab : thermal shield					X
220 532 - fuel tanks	X	X		X	X
220 533 - engine	X	X		X	X
220 534 - exhaust system	X	X		X	
220 535 - endurance braking system		X	X	X	X
220 536 - auxiliary heating	X	X			
220 540 SPEED LIMITATION	X	X	X	X	X

TABLE

220 501-

220 509

Electrical equipment

General provisions

220 510 The electrical installation as a whole shall meet the provisions of marginal 220 511 to 220 515 in accordance with the table of marginal 220 500.

Wiring

220 511 (1) The size of conductors shall be large enough to avoid overheating. Conductors shall be adequately insulated. All circuits shall be protected by fuses or automatic circuit breakers, except for the following :

- from the battery to cold start and stopping systems of the engine
- from the battery to the alternator
- from the alternator to the fuse or circuit breaker box
- from the battery to the starter motor
- from the battery to the power control housing of the endurance braking system (see marginal 220 522 below), if this system is electrical or electromagnetic.

The above unprotected circuits shall be as short as possible.

(2) Cables shall be securely fastened and positioned in such a way that the conductors are adequately protected against mechanical and thermal stresses.

Battery master switch

220 512 (1) A switch for breaking the electrical circuits shall be placed as close to the battery as possible.

(2) Direct or indirect control devices shall be installed, one in the driver's cab and a second on the outside of the vehicle. They shall be readily accessible and distinctively marked. The control device located in the driver's cab shall be within immediate reach of the driver seated in the driver's seat. It shall be protected against inadvertent operation by either adding a protective cover, or by using a dual movement control device or by other suitable means.

220 512 (3) It shall be possible to open the switch while the engine is (cont'd) running, without causing any dangerous excess voltage. Operation of the switch shall not constitute a fire hazard in an explosive atmosphere ; this can be ensured by using a switch having a casing with protection degree IP65 in accordance with IEC Standard 529.

(4) The cable connections on the battery master switch shall have a protection degree IP54. However this does not apply if these connections are contained in a housing which may be the battery box. In this case it is sufficient to insulate the connections against short circuits, for example with a rubber cap.

Batteries

220 513 The battery terminals shall be electrically insulated or covered by the insulating battery box cover. If the batteries are not located under the engine bonnet, they shall be fitted in a vented box.

Tachographs

220 514 The electrical supply to the tachograph shall be provided via a safety barrier connected directly to the battery. The electrical supply leads to and from the tachograph, which remain energized when the battery master-switch is open, shall be intrinsically safe according to the requirements of European Standard EN 50 020. The tachograph and the safety barrier shall meet the requirements for associated electrical equipment according to European Standard EN 50 020.

Permanently energized installations

220 515 Those parts of the electrical installation, other than the tachograph, which remain energized when the battery master-switch is open, shall be suitable for use in a hazardous area and shall meet the appropriate requirements of European Standard EN 50 014 and one of European Standards EN 50 015 to 50 020 or EN 50 028. The requirements for the relevant gas group according to the product being carried shall be met.

Provisions concerning that part of the electrical installation
situated to the rear of the driver's cab

220 516 The whole installation shall be so designed, constructed and protected such that it cannot provoke any ignition or short-circuit under normal conditions of use of vehicles and that these risks can be minimized in the event of an impact or deformation. In particular :

(1) Wiring

The wiring located behind the driver's cab shall be protected against impact, abrasion and chafing during normal vehicle operation. Examples of appropriate protection are given in the figures 1, 2, 3 and 4 below. However, the sensor cables of anti-lock braking devices do not need additional protection.

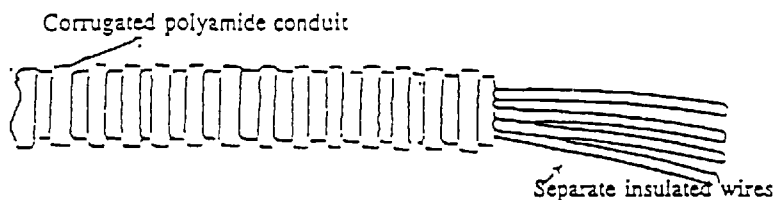


Figure N° 1

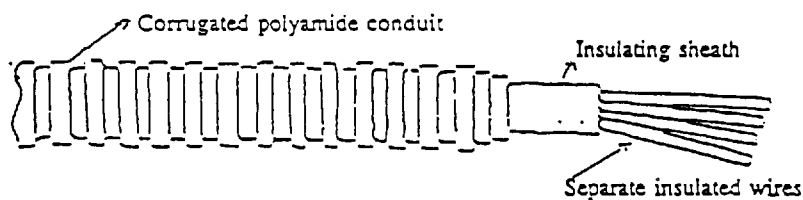


Figure N° 2

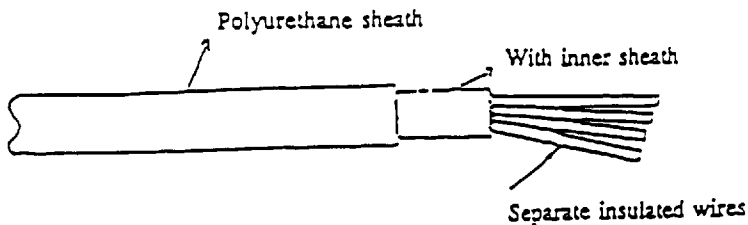


Figure N° 3.

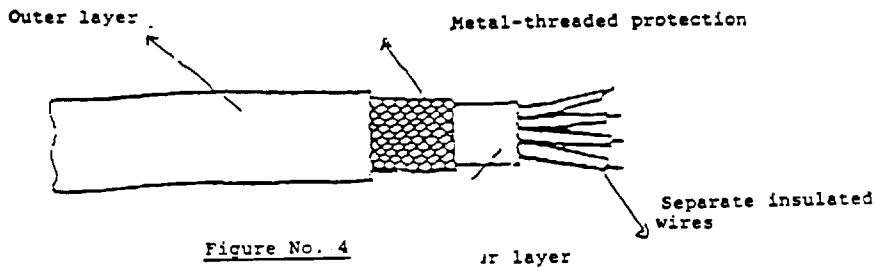


Figure No. 4

(2) Lighting

Lamp bulbs with a screw cap shall not be used.

Electrical lifting mechanism

210 517 The electrical equipment of the mechanism for lifting a bogie axle shall be installed outside the chassis frame in a sealed housing.

220 518-

220 519

Braking equipmentGeneral provisions

220 520 In addition to the following technical provisions, to be applied in accordance with the table of marginal 220 500, motor vehicles and trailers intended for use as transport units for dangerous goods shall fulfil all relevant technical requirements of the ECE Regulation N° 13 or the Directive 71/320/EEC ^{*}/ in their latest amended form applicable at the time of vehicle approval.

^{*}/ Originally published in the Official Journal of the European Communities No. L 202 of 6.9.1971.

Anti-lock Braking System

220 521 (1) Motor vehicles having a maximum mass exceeding 16 tonnes, or authorized to tow a trailer with a maximum mass exceeding 10 tonnes, shall be equipped with an anti-lock braking system of category 1 according to ECE Regulation N° 13, Annex 13, or to Directive 71/320/EEC */.

(2) Trailers having a maximum mass exceeding 10 tonnes shall be equipped with an anti-lock braking system of category A according to ECE Regulation No. 13, Annex 13, or to Directive 71/320/EEC */.

(3) Electrical connections between drawing vehicles and the trailers for the anti-lock system in the trailer shall be made by means of a connector conforming to ISO 7638:1985.

Endurance braking system

220 522 (1) Endurance braking system means a system intended to stabilize vehicle speed on a long descent, without the use of the service, secondary or parking braking systems.

(2) Motor vehicles having a maximum mass exceeding 16 tonnes or authorized to tow a trailer with a maximum mass exceeding 10 tonnes shall be fitted with an endurance braking system which complies with the following requirements:

- (a) The endurance braking system may be a single device or a combination of several devices. Each device may have its own control.
- (b) All three endurance braking control options provided for in ECE Regulation N° 13, paragraph 2.14 or in Directive 71/320/EEC */ shall be permitted, but, in the case of a failure of the anti-lock system, integrated or combined retarders shall be switched off automatically.

*/ Originally published in the Official Journal of the European Communities N. L 202 of 6.9.1971.

- 220 522 (c) The effectiveness of the endurance braking system shall be
(cont'd) controlled by the anti-lock braking system such that the axle(s) braked by the endurance braking system cannot be locked by the endurance braking system at speeds above 15 km/h. However, this provision shall not apply to that part of the braking system constituted by natural engine braking.
- (d) The endurance braking system shall comprise several stages of effectiveness, including a low stage appropriate for the unladen condition. Where the endurance braking system of a motor vehicle is constituted by its engine, the different gear ratios shall be considered to provide the different stages of effectiveness.
- (e) The performance of the endurance braking system must be such that it fulfils the requirements of ECE Regulation N° 13, Annex 5 (Type II A test), or of the corresponding EEC Directive **/, with a laden vehicle mass comprising the laden mass of the motor vehicle and its authorized maximum towed mass but not exceeding a total of 44 tonnes.
- (f) If the motor vehicle does not fulfil the performance requirements for the endurance braking system as defined in paragraph (2) (e) above, it shall at least fulfil the requirements of ECE Regulation N° 13, Annex 5, or the corresponding EEC Directive **/, and shall be restricted to be coupled only to a trailer fitted with an endurance braking system. Such a motor vehicle must be fitted with a control device for the endurance braking system on the trailer.
- (3) If a trailer is equipped with an endurance braking system it shall fulfil the requirements of ECE Regulation N° 13, Annex 5, or the corresponding EEC Directive **/, and the provisions of paragraphs (2) (a) to (2) (d) above.

**/ Exact reference to be included.

220 523-

220 529

Prevention of fire risks

General provisions

220 530 The following technical provisions shall apply in accordance with the table of marginal 220 500.

Vehicle cab

220 531 (1) Only material not readily flammable shall be used in the construction of the driver's cab. This provision will be deemed to be met if, in accordance with the procedure specified in ISO standard 3795:1989, samples of the following cab components have a burn rate not exceeding 100 mm/min : seat cushions, seat backs, safety belts, head lining, opening roofs, arm rests, all trim panels including door, front, rear, and side panels, compartment shelves, head restraints, floor coverings, sun visors, curtains, shades, wheel housing covers, engine compartment covers, mattress covers and any other interior materials, including padding and crash-deployed elements, that are designed to absorb energy on contact by occupants in the event of a crash.

(2) Unless the driver's cab is made of not readily flammable materials, a shield made of metal or other suitable material of the same width as the tank shall be fitted at the back of the cab. Any windows in the back of the cab or in the shield shall be hermetically closed and made of fire resistant safety glass with fire resistant frames. Furthermore, there shall be a clear space of not less than 15 cm between the tank and the cab or the shield.

Fuel tanks

220 532 The fuel tanks for supplying the engine of the vehicle shall meet the following requirements:

(1) The fuel tanks shall be so placed as to be protected as far as possible against any collision.

(2) In the event of any leakage, the fuel shall drain to the ground without coming into contact with hot parts of the vehicle or the load.

- 220 532 (3) Fuel tanks containing petrol shall be equipped with an effective (cont'd) flame trap at the filler opening or with a closure with which the opening can be kept hermetically sealed.

Engine

- 220 533 The engine propelling the vehicle shall be so equipped and situated to avoid any danger to the load through heating or ignition. In the case of transport of explosive substances or articles (vehicle types EX/II and EX/III) the engine shall be placed forward of the front wall of the body; it may nevertheless be placed under the body, provided this is done in such a way as to avoid any heating, even localized, of the load.

Exhaust system

- 220 534 The exhaust system as well as the exhaust pipes shall be so directed or protected to avoid any danger to the load through heating or ignition. Parts of the exhaust system situated directly below the fuel tank (diesel) shall have a clearance of at least 100 mm or be protected by a thermal shield. In the case of transport of explosive substances or articles (vehicle types EX/II and EX/III) the exhaust system shall be placed forward of the front wall of the body or separated from the load-carrying part of the vehicle by a fire-resistant and heat-insulating screen. In this case the exhaust pipe outlet shall be directed outwards from the vehicle.

Vehicle endurance braking

- 220 535 Vehicles equipped with endurance braking systems emitting high temperatures placed behind the rear wall of the driver's cab shall be equipped with a thermal shield securely fixed and located between this system and the tank or load so as to avoid any heating, even local, of the tank shell or the load.

In addition, the thermal shield shall protect the braking system against any outflow or leakage, even accidental, of the load. For instance, a protection including a twin-shell shield shall be considered satisfactory.

Auxiliary heating device

- 220 536 Auxiliary heating for the cab shall be sufficiently secure from the standpoint of fire prevention and shall be placed forward of the protective wall (rear wall of the cab). The heating appliance shall be placed as far forward and as high as possible (at least 80 cm above floor level) and shall be fitted with devices preventing any object from being brought into contact with the hot surfaces of the appliance or its exhaust pipe. Only appliances with a means of rapidly restarting the combustion air ventilator (max. 20 s) may be used.

220 537-

220 539

Speed limitation device

- 220 540 Motor vehicles (rigid vehicles and tractors for semi-trailers) with a maximum mass exceeding 12 tonnes, shall be equipped in accordance with marginal 10 261 with a speed limitation device according to the provisions of ECE Regulation N° 89 or of Directives 92/6/EEC and 92/24/EEC. The set speed V as defined in paragraph 2.1.2 of ECE Regulation No. 89 shall not exceed 85 km/h.

220 541-

220 599

Section 6: Modification of the vehicle type and extension of approval

- 220 600 Every modification of the vehicle type shall be notified to the administrative department which approved the vehicle type. The department may then either:

(1) Consider that the modifications made are unlikely to have an appreciable adverse effect and that in any case the vehicle still complies with the requirements, or

(2) Require a further test report from the technical service responsible for conducting the tests.

- 220 601 Confirmation or refusal of approval, specifying the alteration, shall be communicated by the procedure specified in marginal 220 402 to the Contracting Parties.

220 602 The competent authority issuing an extension of approval shall assign a series number to each communication form drawn up for such an extension and inform thereof the other Parties by means of a communication form conforming to the model in marginal 221 000.

220 603-

220 699

Section 7: Conformity of production

Initial assessment

220 700 The approval authority of a Contracting Party shall verify - before granting type approval - the existence of satisfactory arrangements and procedures for ensuring effective control so that vehicles when in production conform to the approved type.

220 701 The requirement in marginal 220 700 shall be verified to the satisfaction of the authority granting type approval but may also be verified, on behalf of the authority granting type approval, by the approval authority of another Contracting Party. In that case, the latter approval authority prepares a statement of compliance outlining the areas and production facilities it has covered as relevant to the vehicle(s) to be type approved.

220 702 The approval authority shall also accept the manufacturer's registration to harmonized standard ISO 9002 (the scope of which/covers the vehicle(s) to be approved) or an equivalent accreditation standard as satisfying the requirements of marginal 220 700. The manufacturer shall provide details of the registration and undertake to inform the approval authority of any revisions to its validity or scope.

220 703 On receiving an application from the authority of another Contracting Party the approval authority shall send forthwith the statement of compliance mentioned in the last sentence of marginal 220 701 or advise that it is not in a position to provide such a statement.

220 704-

220 709

Conformity of production

- 220 710 Every vehicle approved under this Appendix shall be so manufactured as to conform to the type approved by meeting the provisions set out in section 5 above.
- 220 711 The approval authority of a Contracting Party granting a type approval pursuant to this Appendix shall verify the existence of adequate arrangements and documented control plans, to be agreed with the manufacturer for each approval, to carry out at specified intervals those tests or associated checks necessary to verify continued conformity with the approved type including specifically, where applicable, tests specified in this Appendix.
- 220 712 The holder of the approval shall in particular:
- (1) Ensure the existence of procedures for effective control of the conformity of vehicles to the type approval;
 - (2) Have access to the testing equipment necessary for checking the conformity to each approved type;
 - (3) Ensure that test results data are recorded and that annexed documents remain available for a period to be determined in agreement with the approval authority. This period shall not exceed 10 years;
 - (4) Analyse results of each type of test, in order to verify and ensure the stability of the vehicle characteristics, making allowance for variation of an industrial production;
 - (5) Ensure that for each type of vehicle, at least the checks and tests prescribed in this Appendix are carried out;
 - (6) Ensure that any set of samples or test pieces giving evidence of non-conformity in the type of test in question gives rise to a further sampling and test. All the necessary steps shall be taken to restore conformity of the corresponding production.

220 713 The authority which has granted type approval may at any time verify the conformity control methods applied in each production facility. The normal frequency of these verifications shall be consistent with the arrangements (if any) accepted under marginals 220 701 or 220 702 of this Appendix and be such as to ensure that the relevant controls are reviewed over a period consistent with the climate of trust established by the approval authority.

(1) At every inspection, the test records and production records shall be available to the visiting inspector.

(2) Where the nature of the test is appropriate, the inspector may select samples at random to be tested in the manufacturer's laboratory or by the Technical Service according to section 9 below. The minimum number of samples may be determined according to the results of the manufacturer's own verification.

(3) Where the level of control appears unsatisfactory, or when it seems necessary to verify the validity of the tests carried out in application of paragraph (2) above, the inspector shall select samples to be sent to the Technical Service which conducts the type approval tests.

(4) The approval authority may carry out any check or test prescribed in this Appendix.

(5) In cases where unsatisfactory results are found during an inspection, the approval authority shall ensure that all necessary steps are taken to restore conformity of production as rapidly as possible."

220 714-

220 719

Penalties for non-conformity of production

220 720 The approval granted in respect of a vehicle type pursuant to this Appendix may be withdrawn if the provisions laid down in section 5 above are not complied with.

220 721 If a Contracting Party withdraws an approval it has previously granted, it shall forthwith so notify the other Contracting Parties by means of a communication form conforming to the model in marginal 221 000.

220 722-

220 799

Section 8: Production definitely discontinued

- 220 800 If the holder of the approval completely ceases to manufacture a type of vehicle approved in accordance with this Appendix, he shall so inform the authority which granted the approval. Upon receiving the relevant communication, that authority shall inform thereof the other Parties by means of a communication form conforming to the model in marginal 221 000.

220 801-

220 899

Section 9: Names and addresses of technical services responsible for conducting approval tests and of administrative departments

- 220 900 The Contracting Parties shall communicate to the United Nations secretariat the names and addresses of the technical services responsible for conducting approval tests and of the administrative departments which grant approval and to which forms certifying approval or extension, or refusal or withdrawal of approval or production definitely discontinued, issued in other countries, are to be sent.

220 901-

220 999

221 000

COMMUNICATION

(Maximum format : A4 (210 x 297 mm))

ADR 1/

issued by: Name of Administration

.....

.....

.....

CONCERNING: 2/ APPROVAL GRANTED
 APPROVAL EXTENDED
 APPROVAL REFUSED
 APPROVAL WITHDRAWN
 PRODUCTION DEFINITELY DISCONTINUED OF A VEHICLE
 TYPE WITH REGARD TO SPECIFIC CONSTRUCTIONAL
 FEATURES FOR THE TRANSPORT OF DANGEROUS GOODS

Approval N° Extension N°

1. Trade name or mark of vehicle
2. Vehicle type : Chassis-cab, tractor for semi-trailer, trailer,
 semi-trailer, trailer with a self-supporting body 2/
3. Type of vehicle according to marginal 220 301(2) (EX/II, EX/III, FL,
 OX, AT).....
4. Manufacturer's name and address
5. If applicable, name and address of manufacturer's representative
6. Mass of vehicle :
- 6.1 Technical maximum mass of complete vehicle

 1/ Distinguishing number of the country which has granted
 /extended/refused/withdrawn approval (see footnote 1/ to marginal 220 403
 (1)).

2/ Strike out what does not apply.

7. Specific equipment of the vehicle:
 - 7.1 The vehicle is/is not equipped with specific electrical devices.
Summary description:
 - 7.2 The vehicle is/is not equipped with a brake anti-lock device.
Approval number:
Category of device:
 - 7.3 The vehicle is/is not equipped with an endurance braking system ...
Approval number:

Technical maximum mass of the vehicle corresponding to the performance
of the endurance braking system

Summary description
 - 7.4 The vehicle is/is not equipped with devices for the prevention of fire
risks.
Summary description:
 - 7.5 In the case of a motor vehicle
 - 7.5.1 Type of engine: positive-ignition; compression ignition
 - 7.5.2 The vehicle is/is not equipped with a device to limit the speed by
construction adjusted to a speed of ... km/h.

Approval number:
8. Vehicle submitted for approval on
9. Technical service responsible for carrying out approval inspections ..
.....
10. Date of report issued by that service
11. Number of report issued by that service

12. Approval granted / refused / extended / withdrawn 2/.....
13. Position of approval mark on the vehicle
14. Place
15. Date
16. Signature

2/ Strike out what does not apply.

221 001-
229 999"

Appendix B.5 marginal 250 000 should be replaced by the new marginal
below:

"250 000 List of substances and identification numbers

(1) The hazard identification number consists of two or three figures. In general, the figures indicate the following hazards:

- 2 Emission of gas due to pressure or to chemical reaction
- 3 Flammability of liquids (vapours) and gases or self-heating liquid
- 4 Flammability of solids or self-heating solid
- 5 Oxidizing (fire-intensifying) effect
- 6 Toxicity or risk of infection
- 7 Radioactivity
- 8 Corrosivity
- 9 Risk of spontaneous violent reaction

Note: The risk of spontaneous violent reaction within the meaning of figure 9 include the possibility following from the nature of a substance of a risk of explosion, disintegration and polymerization reaction following the release of considerable heat or flammable and/or toxic gases.

Doubling of a figure indicates an intensification of that particular hazard.

Where the hazard associated with a substance can be adequately indicated by a single figure, this is followed by zero.

The following combinations of figures, however, have a special meaning: 22, 323, 333, 362, 382, 423, 44, 446, 462, 482, 539, 606, 623, 642, 823, 842 and 90, see (2) below.

If a hazard identification number is prefixed by the letter "X", this indicates that the substance will react dangerously with water. For such substances, water may only be used by approval of experts.

(2) The hazard identification numbers listed in paragraph (3) have the following meanings:

- 20 inert gas
- 22 refrigerated gas
- 223 refrigerated flammable gas
- 225 refrigerated oxidizing (fire-intensifying) gas

- 250 000
(cont'd)
- 23 flammable gas
 - 236 flammable gas, toxic
 - 239 flammable gas, which can spontaneously lead to violent reaction
 - 25 oxidizing (fire-intensifying) gas
 - 26 toxic gas
 - 265 toxic gas, oxidizing (fire-intensifying)
 - 266 highly toxic gas
 - 268 toxic gas, corrosive
 - 286 corrosive gas, toxic
 - 30 flammable liquid (flash-point between 23 °C and 61 °C, inclusive) or flammable liquid or solid in the molten state with a flash-point above 61 °C, heated to a temperature equal to or above its flash-point, or self-heating liquid
 - 323 flammable liquid which reacts with water, emitting flammable gases
 - X323 flammable liquid which reacts dangerously with water, emitting flammable gases~/
 - 33 highly flammable liquid (flash-point below 23°C)
 - 333 pyrophoric liquid
 - X333 pyrophoric liquid which reacts dangerously with water~/
 - 336 highly flammable liquid, toxic
 - 338 highly flammable liquid, corrosive
 - X338 highly flammable liquid, corrosive, which reacts dangerously with water~/
 - 339 highly flammable liquid which can spontaneously lead to violent reaction
 - 36 flammable liquid (flash-point between 23 °C and 61 °C inclusive), slightly toxic, or self-heating liquid, toxic
 - 362 flammable liquid, toxic, which reacts with water, emitting flammable gases
 - X362 flammable liquid toxic, which reacts dangerously with water, emitting flammable gases~/
 - 38 flammable liquid (flash-point between 23 °C and 61 °C, inclusive), corrosive

~/ Water not to be used except by approval of experts.

250 000
(cont'd)

- 382 flammable liquid, corrosive, which reacts with water, emitting flammable gases
- X382 flammable liquid, corrosive, which reacts dangerously with water, emitting flammable gases^{2/}
- 39 flammable liquid, which can spontaneously lead to violent reaction
- 40 flammable or self-heating solid
- 423 solid which reacts with water, emitting flammable gases
- X423 flammable solid which reacts dangerously with water, emitting flammable gases^{2/}
- 44 flammable solid, in the molten state at an elevated temperature
- 446 flammable solid, toxic, in the molten state, at an elevated temperature
- 46 flammable or self-heating solid, toxic
- 462 toxic solid which reacts with water, emitting flammable gases
- 48 flammable or self-heating solid, corrosive
- 482 corrosive solid which reacts with water, emitting flammable gases
- 50 oxidizing (fire-intensifying) substance
- 539 flammable organic peroxide
- 55 strongly oxidizing (fire-intensifying) substance
- 556 strongly oxidizing (fire-intensifying) substance, toxic
- 558 strongly oxidizing (fire-intensifying) substance, corrosive
- 559 strongly oxidizing (fire-intensifying) substance, which can spontaneously lead to violent reaction
- 56 oxidizing substance (fire-intensifying), toxic
- 568 oxidizing substance (fire-intensifying), toxic, corrosive
- 58 oxidizing substance (fire-intensifying), corrosive
- 59 oxidizing substance (fire-intensifying) which can spontaneously lead to violent reaction
- 60 toxic or slightly toxic substance
- 606 infectious substance
- 623 toxic liquid, which reacts with water, emitting flammable gases
- 63 toxic substance, flammable (flash-point between 23°C and 61°C inclusive)
- 638 toxic substance, flammable (flash-point between 23°C and 61°C inclusive), corrosive

^{2/} Water not to be used except by approval of experts.

- 250 000
(cont'd)
- 639 toxic substance, flammable (flash-point between 23°C and 61°C inclusive) which can spontaneously lead to violent reaction
- 64 toxic solid, flammable or self-heating
- 642 toxic solid, which reacts with water, emitting flammable gases
- 65 toxic substance, oxidizing (fire-intensifying)
- 66 highly toxic substance
- 663 highly toxic substance, flammable (flash-point not above 61°C)
- 664 highly toxic solid, flammable or self-heating
- 665 highly toxic substance, oxidizing (fire-intensifying)
- 668 highly toxic substance, corrosive
- 669 highly toxic substance which can spontaneously lead to violent reaction
- 68 toxic substance, corrosive
- 69 toxic substance, which can spontaneously lead to violent reaction
- 70 radioactive material
- 72 radioactive gas
- 723 radioactive gas, flammable
- 73 radioactive liquid, flammable (flash-point not above 61°C)
- 74 radioactive solid, flammable
- 75 radioactive material, oxidizing (fire-intensifying)
- 76 radioactive material, toxic
- 78 radioactive material, corrosive
- 80 corrosive or slightly corrosive substance
- X80 corrosive or slightly corrosive substance, which reacts dangerously with water[~]/
- 823 corrosive liquid which reacts with water, emitting flammable gases
- 83 corrosive or slightly corrosive substance, flammable (flash-point between 23°C and 61°C inclusive)
- X83 corrosive or slightly corrosive substance, flammable, (flash-point between 23°C and 61°C inclusive), which reacts dangerously with water[~]/
- 836 corrosive or slightly corrosive substance, flammable (flash-point between 23°C and 61°C), toxic
- 839 corrosive or slightly corrosive substance, flammable (flash-point between 23°C and 61°C inclusive) which can spontaneously lead to violent reaction

[~]/ Water not to be used except by approval of experts

- 250 000
(cont'd)
- X839 corrosive or slightly corrosive substance, flammable (flash-point between 23°C and 61°C inclusive), which can spontaneously lead to violent reaction and which reacts dangerously with water~/
 - 84 corrosive solid, flammable or self-heating
 - 842 corrosive solid which reacts with water, emitting flammable gases
 - 85 corrosive or slightly corrosive substance, oxidizing (fire-intensifying)
 - 856 corrosive or slightly corrosive substance, oxidizing (fire-intensifying) and toxic
 - 86 corrosive or slightly corrosive substance, toxic
 - 88 highly corrosive substance
 - X88 highly corrosive substance, which reacts dangerously with water~/
 - 883 highly corrosive substance, flammable (flash-point between 23°C and 61°C inclusive)
 - 884 highly corrosive solid, flammable or self-heating
 - 885 highly corrosive substance, oxidizing (fire-intensifying)
 - 886 highly corrosive substance, toxic
 - X886 highly corrosive substance, toxic, which reacts dangerously with water~/
 - 89 corrosive or slightly corrosive substance, which can spontaneously lead to violent reaction
 - 90 environmentally hazardous substance; miscellaneous dangerous substances

(3) The identification numbers referred to in marginal 10 500 are listed in Tables I, II and III below.

Note 1: The identification numbers to be shown on the orange plates should be looked for first in Table I. If in the case of substances of classes 3, 4.1, 4.2, 4.3, 5.1, 5.2, 6.1, 6.2, 7, 8 and 9 the name of the substance to be carried or the collective heading which covers it is not listed in Table I, the identification numbers are to be taken from Table II.

Note 2: Table III contains all the entries in Tables I and II in substance identification number order.

~/ Water not to be used except by approval of experts

Table 1

List of substances described under their chemical names or under collective headings which are given a specific "substance identification number" (column (b)). [For solutions and mixtures of substances (such as preparations and wastes), see also marginal 2002 (8) and (9)].

This table also includes substances not shown in the class lists of substances, but which nevertheless fall within the classes and item numbers shown in column (e).

NOTE: For substances of Classes 3, 4.1, 4.2, 4.3, 5.1, 6.1, 6.2, 7, 8 and 9 not mentioned in this table, see Table II. Substances are listed in alphabetical order.

Name of substance (a)	Substance Identification No. (Lower part) (b)	Hazard Identification No. (Upper part) (c)	Label (d)	Class and item number (e)
Acetal	1088	33	3	3, 3°(b)
Acetaldehyde	1089	33	3	3, 1°(a)
Acetaldehyde oxime	2332	30	3	3, 31°(c)
Acetic acid, glacial	2789	83	8+3	8, 32°(b)2.
Acetic acid, solution	2789	83	8+3	8, 32°(b)2.
Acetic acid, solution	2790	80	8	8, 32°(b)1.,(c)
Acetic anhydride	1715	83	8+3	8, 32°(b)2.
Acetone	1090	33	3	3, 3°(b)
Acetone cyanohydrin, stabilized	1541	66	6.1	6.1, 12°(a)
Acetone oils	1091	33	3	3, 3°(b)
Acetonitrile (methyl cyanide)	1648	33	3	3, 3°(b)
Acetyl bromide	1716	80	8	8, 35°(b)1.
Acetyl chloride	1717	X338	3+8	3, 25°(b)
Acetyl iodide	1898	80	8	8, 35°(b)1.
Acetyl methyl carbinol	2621	30	3	3, 31°(c)
Acridine	2713	60	6.1	6.1, 12°(c)
Acrolein, dimer, stabilized	2607	39	3	3, 31°(c)
Acrolein, inhibited	1092	663	6.1+3	6.1, 8°(a)
Acrylamide	2074	60	6.1	6.1, 12°(c)
Acrylic acid, inhibited	2218	839	8+3	8, 32°(b)2.

Name of substance (a)	Substance Identification No. (Lower part) (b)	Hazard Identification No. (Upper part) (c)	Label (d)	Class and item number (e)
Acrylonitrile, inhibited	1093	336	3+6.1	3, 11°(a)
Adhesives	1133	33	3	3, 5°(a),(b),(c)
Adhesives	1133	30	3	3, 31°(c)
Adiponitrile	2205	60	6.1	6.1, 12°(c)
Air, compressed	1002	20	2	2, 2°(a)
Air, deeply-refrigerated	1003	225	2+05	2, 8°(a)
Alcoholic beverages	3065	30	3	3, 31°(c)
Alcoholic beverages	3065	33	3	3, 3°(b)
Aldol	2839	60	6.1	6.1, 14°(b)
Alkali metal amalgam	1389	X423	4.3	4.3, 11°(a)
Alkali metal amides	1390	423	4.3	4.3, 19°(b)
Alkali metal dispersion	1391	X423	4.3	4.3, 11°(a)
Alkaline earth metal amalgam	1392	X423	4.3	4.3, 11°(a)
Alkaline earth metal dispersion	1391	X423	4.3	4.3, 11°(a)
Alkylsulphonic acids, liquid	2584	80	8	8, 1°(b)
Alkylsulphonic acids, liquid	2586	80	8	8, 34°(c)
Alkylsulphonic acids, solid	2583	80	8	8, 1°(b)
Alkylsulphonic acids, solid	2585	80	8	8, 34°(c)
Alkylsulphuric acids	2571	80	8	8, 34°(b)
Allyl acetate	2333	336	3+6.1	3, 17°(b)
Allyl alcohol	1098	663	6.1+3	6.1, 8°(a)
Allyl bromide	1099	336	3+6.1	3, 16°(a)
Allyl chloride	1100	336	3+6.1	3, 16°(a)
Allyl chloroformate	1722	638	6.1+8+3	6.1, 28°(a)
Allyl ethyl ether	2335	336	3+6.1	3, 17°(b)
Allyl formate	2336	336	3+6.1	3, 17°(a)
Allyl glycidyl ether	2219	30	3	3, 31°(c)
Allyl iodide	1723	338	3+8	3, 25°(b)
Allyl isothiocyanate, inhibited	1545	639	6.1+3	6.1, 20°(b)
Allylamine	2334	663	6.1+3	6.1, 7°(a)2.

Name of substance (a)	Substance Identification No. (Lower part) (b)	Hazard Identification No. (Upper part) (c)	Label (d)	Class and item number (e)
Allyltrichlorosilane, stabilised	1724	X839	8+3	8, 37°(b)
Aluminium alkyl halides	3052	X333	4.2+4.3	4.2, 32°(a)
Aluminium alkyl hydrides	3076	X333	4.2+4.3	4.2, 32°(a)
Aluminium alkyls	3051	X333	4.2+4.3	4.2, 31°(a)
Aluminium borohydride	2870	X333	4.2+4.3	4.2, 17°(a)
Aluminium borohydride in devices	2870	X333	4.2+4.3	4.2, 17°(a)
Aluminium bromide solution	2580	80	8	8, 5°(c)
Aluminium bromide, anhydrous	1725	80	8	8, 11°(b)
Aluminium carbide	1394	423	4.3	4.3, 17°(b)
Aluminium chloride solution	2581	80	8	8, 5°(c)
Aluminium chloride, anhydrous	1726	80	8	8, 11°(b)
Aluminium dross	3170	423	4.3	4.3, 13°(b),(c)
Aluminium ferrosilicon powder	1395	462	4.3+6.1	4.3, 15°(b)
Aluminium nitrate	1438	50	5.1	5.1, 22°(c)
Aluminium powder, coated	1309	40	4.1	4.1, 13°(b),(c)
Aluminium powder, uncoated	1396	423	4.3	4.3, 13°(b)
Aluminium resinate	2715	40	4.1	4.1, 12°(c)
Aluminium silicon powder, uncoated	1398	423	4.3	4.3, 13°(c)
2-Amino-4-chlorophenol	2673	60	6.1	6.1, 12°(b)
2-Amino-5-diethylaminopentane	2946	60	6.1	6.1, 12°(c)
2-(2-Aminoethoxy) ethanol	3055	80	8	8, 53°(c)
N-Aminoethylpiperazine	2815	80	8	8, 53°(c)
Aminophenols (o-, m-, p-)	2512	60	6.1	6.1, 12°(c)
Aminopyridines (o-, m-, p-)	2671	60	6.1	6.1, 12°(b)
Ammonia	1005	268	6.1	2, 3°(at)
Ammonia dissolved in water with more than 35 % but not more than 40 % ammonia	2073	268	6.1	2, 9°(at)
Ammonia dissolved in water with more than 40 % but not more than 50 % ammonia	2073	268	6.1	2, 9°(at)

Name of substance (a)	Substance Identification No. (Lower part) (b)	Hazard Identification No. (Upper part) (c)	Label (d)	Class and item number (e)
Ammonia solution containing between 10 and 35% ammonia	2672	80	8	8, 43°(c)
Ammonium arsenate	1546	60	6.1	6.1, 51°(b)
Ammonium dichromate	1439	50	5.1	5.1, 27°(b)
Ammonium dinitro-o-cresolate	1843	60	6.1	6.1, 12°(b)
Ammonium fluoride	2505	60	6.1	6.1, 63°(c)
Ammonium fluorosilicate	2854	60	6.1	6.1, 64°(c)
Ammonium hydrogendifluoride, solid	1727	80	8	8, 9°(b)
Ammonium hydrogendifluoride solution	2817	86	8+6.1	8, 7°(b),(c)
Ammonium hydrogen sulphate	2506	80	8	8, 13°(b)
Ammonium metavanadate	2859	60	6.1	6.1, 58°(b)
Ammonium nitrate	1942	50	5.1	5.1, 21°(c)
Ammonium nitrate fertilizers, type A1	2067	50	5.1	5.1, 21°(c)
Ammonium nitrate fertilizers, type A2	2068	50	5.1	5.1, 21°(c)
Ammonium nitrate fertilizers, type A3	2069	50	5.1	5.1, 21°(c)
Ammonium nitrate fertilizers, type A4	2070	50	5.1	5.1, 21°(c)
Ammonium nitrate, liquid, (hot concentrated solution)	2426	59	5.1	5.1, 20°
Ammonium persulphate	1444	50	5.1	5.1, 18°(c)
Ammonium polysulphide solution	2818	86	8+6.1	8, 45°(c)
Ammonium polysulphide solution	2818	86	8+6.1	8, 45°(b)1.
Ammonium polyvanadate	2861	60	6.1	6.1, 58°(b)
Ammonium sulphide, solution	2683	86	8+6.1+3	8, 45°(b)2.
Amyl acetates	1104	30	3	3, 31°(c)
Amyl acid phosphate	2819	80	8	8, 38°(c)
Amyl alcohols	1105	30	3	3, 31°(c)
Amyl alcohols	1105	33	3	3, 3°(b)
Amyl butyrates	2620	30	3	3, 31°(c)
Amyl chloride	1107	33	3	3, 3°(b)
Amyl formates	1109	30	3	3, 31°(c)

Name of substance (a)	Substance Identification No. (Lower part) (b)	Hazard Identification No. (Upper part) (c)	Label (d)	Class and item number (e)
Amyl mercaptan	1111	33	3	3, 3°(b)
n-Amyl methyl ketone	1110	30	3	3, 31°(c)
Amyl nitrate	1112	30	3	3, 31°(c)
Amyl nitrite	1113	33	3	3, 3°(b)
Amylamines (n-amylamine, tert-amylamine)	1106	338	3+8	3, 22°(b)
Amylamine (sec-amylamine)	1106	38	3+8	3, 33°(c)
Amyltrimethylchlorosilane	1728	X80	8	8, 36°(b)
Aniline	1547	60	6.1	6.1, 12°(b)
Aniline hydrochloride	1548	60	6.1	6.1, 12°(c)
Anisidines	2431	60	6.1	6.1, 12°(c)
Anisole (phenyl methyl ether)	2222	30	3	3, 31°(c)
Anisoyl chloride	1729	80	8	8, 35°(b)1.
Antimony lactate	1550	60	6.1	6.1, 59°(c)
Antimony pentachloride solution	1731	80	8	8, 12°(b),(c)
Antimony pentachloride, liquid	1730	80	8	8, 12°(b)
Antimony pentafluoride	1732	86	8+6.1	8, 10°(b)
Antimony potassium tartrate	1551	60	6.1	6.1, 59°(c)
Antimony powder	2871	60	6.1	6.1, 59°(c)
Antimony trichloride	1733	80	8	8, 11°(b)
Argon, compressed	1006	20	2	2, 1°(a)
Argon, deeply-refrigerated	1951	22	2	2, 7°(a)
Arsenic	1558	60	6.1	6.1, 51°(b)
Arsenic acid, liquid	1553	66	6.1	6.1, 51°(a)
Arsenic acid, solid	1554	60	6.1	6.1, 51°(b)
Arsenic bromide	1555	60	6.1	6.1, 51°(b)
Arsenic pentoxide	1559	60	6.1	6.1, 51°(b)
Arsenic trichloride	1560	66	6.1	6.1, 51°(a)
Arsenic trioxide	1561	60	6.1	6.1, 51°(b)
Arsenical dust	1562	60	6.1	6.1, 51°(b)

Name of substance (a)	Substance Identification No. (Lower part) (b)	Hazard Identification No. (Upper part) (c)	Label (d)	Class and item number (e)
Arylsulphonic acids, liquid	2584	80	8	8, 1°(b)
Arylsulphonic acids, liquid	2586	80	8	8, 34°(c)
Arylsulphonic acids, solid	2583	80	8	8, 1°(b)
Arylsulphonic acids, solid	2585	80	8	8, 34°(c)
Barium	1400	423	4.3	4.3, 11°(b)
Barium bromate	2719	56	5.1+6.1	5.1, 29°(b)
Barium chlorate	1445	56	5.1+6.1	5.1, 29°(b)
Barium hypochlorite	2741	56	5.1+6.1	5.1, 29°(b)
Barium nitrate	1446	56	5.1+6.1	5.1, 29°(b)
Barium oxide	1884	60	6.1	6.1, 60°(c)
Barium perchlorate	1447	56	5.1+6.1	5.1, 29°(b)
Barium permanganate	1448	56	5.1+6.1	5.1, 29°(b)
Barium peroxide	1449	56	5.1+6.1	5.1, 29°(b)
Battery fluid, alkali	2797	80	8	8, 42°(b)
Battery fluid, acid	2796	80	8	8, 1°(b)
Benzene	1114	33	3	3, 3°(b)
Benzenesulphonyl chloride	2225	80	8	8, 35°(c)
Benzidine	1885	60	6.1	6.1, 12°(b)
Benzonitrile	2224	60	6.1	6.1, 12°(b)
Benzoquinone	2587	60	6.1	6.1, 14°(b)
Benzotrichloride	2226	80	8	8, 66°(b)
Benzotrifluoride	2338	33	3	3, 3°(b)
Benzoyl chloride	1736	80	8	8, 35°(b)1.
Benzyl bromide	1737	68	6.1+8	6.1, 27°(b)
Benzyl chloride	1738	68	6.1+8	6.1, 27°(b)
Benzyl chloroformate	1739	88	8	8, 64°(a)
Benzyl iodide	2653	60	6.1	6.1, 15°(b)
Benzyl dimethylamine	2619	83	8+3	8, 54°(b)
Benzylidene chloride	1886	60	6.1	6.1, 15°(b)
Beryllium nitrate	2464	56	5.1+6.1	5.1, 29°(b)

Name of substance (a)	Substance Identification No. (Lower part) (b)	Hazard Identification No. (Upper part) (c)	Label (d)	Class and item number (e)
Beryllium powder	1567	64	6.1+4.1	6.1, 54°(b)1.
Bisulphates, aqueous solution	2837	80	8	8, 1°(b),(c)
Blue asbestos (Crocidolite)	2212	90	9	9, 1°(b)
Borneol	1312	40	4.1	4.1, 6°(c)
Boron tribromide (boron bromide)	2692	X88	8	8, 12°(a)
Boron trifluoride	1008	26	6.1	2, 1°(at)
Boron trifluoride acetic acid complex	1742	80	8	8, 33°(b)
Boron trifluoride diethyl etherate	2604	883	8+3	8, 33°(a)
Boron trifluoride dihydrate	2851	80	8	8, 10°(b)
Boron trifluoride dimethyl etherate	2965	382	4.3+3+8	4.3, 2°(a)
Boron trifluoride propionic acid complex	1743	80	8	8, 33°(b)
Bromine or bromine solution	1744	886	8+6.1	8, 14°
Bromine pentafluoride	1745	568	5.1+6.1+8	5.1, 5°
Bromine trifluoride	1746	568	5.1+6.1+8	5.1, 5°
2-Bromo-2-nitropropane-1,3-diol	3241	60	6.1	6.1, 17°(c)
1-Bromo-3-chloropropane	2688	60	6.1	6.1, 15°(c)
1-Bromo-3-methylbutane	2341	30	3	3, 31°(c)
Bromoacetic acid	1938	80	8	8, 31°(b)
Bromoacetone	1569	63	6.1+3	6.1, 16°(b)
Bromoacetyl bromide	2513	X80	8	8, 35°(b)1.
Bromobenzene	2514	30	3	3, 31°(c)
Bromobenzyl cyanides	1694	66	6.1	6.1, 17°(a)
1-Bromobutane	1126	33	3	3, 3°(b)
2-Bromobutane	2339	33	3	3, 3°(b)
Bromochlorodifluoromethane (R 12B1)	1974	20	2	2, 3°(a)
Bromochloromethane	1887	60	6.1	6.1, 15°(c)
2-Bromoethyl ethyl ether	2340	33	3	3, 3°(b)
Bromoform	2515	60	6.1	6.1, 15°(c)
Bromomethylpropanes	2342	33	3	3, 3°(b)

Name of substance (a)	Substance Identification No. (Lower part) (b)	Hazard Identification No. (Upper part) (c)	Label (d)	Class and item number (e)
2-Bromopentane	2343	33	3	3, 3°(b)
Bromopropanes	2344	33	3	3, 3°(b)
3-Bromopropyne	2345	33	3	3, 3°(b)
Bromotrifluoromethane (R 13 B1)	1009	20	2	2, 5°(a)
Brown asbestos (Amosite or Mysorite)	2212	90	9	9, 1°(b)
Brucine	1570	66	6.1	6.1, 90°(a)
1,3-Butadiene	1010	239	3	2, 3°(c)
1,2-Butadiene	1010	239	3	2, 3°(c)
Butane, technically-pure	1011	23	3	2, 3°(b)
Butanedione (diacetyl)	2346	33	3	3, 3°(b)
Butanols	1120	33	3	3, 3°(b)
Butanols	1120	30	3	3, 31°(c)
Butoxyl	2708	30	3	3, 31°(c)
Butyl acetates	1123	30	3	3, 31°(c)
Butyl acetates	1123	33	3	3, 3°(b)
Butyl acid phosphate	1718	80	8	8, 38°(c)
Butyl acrylate, inhibited	2348	39	3	3, 31°(c)
n-Butyl bromide	1126	33	3	3, 3°(b)
n-Butyl chloroformate	2743	638	6.1+3+8	6.1, 28°(b)
n-Butyl formate	1128	33	3	3, 3°(b)
tert-Butyl isocyanate	2484	663	6.1+3	6.1, 6°(a)
n-Butyl isocyanate	2485	663	6.1+3	6.1, 6°(a)
Butyl mercaptan	2347	33	3	3, 3°(b)
n-Butyl methacrylate, inhibited	2227	39	3	3, 31°(c)
Butyl methyl ether	2350	33	3	3, 3°(b)
Butyl nitrites	2351	33	3	3, 3°(b)
Butyl nitrites	2351	30	3	3, 31°(c)
Butyl propionate	1914	30	3	3, 31°(c)
Butyl vinyl ether, inhibited	2352	339	3	3, 3°(b)
n-Butylamine	1125	338	3+8	3, 22°(b)

Name of substance (a)	Substance Identification No. (Lower part) (b)	Hazard Identification No. (Upper part) (c)	Label (d)	Class and item number (e)
N-Butylaniline	2738	60	6.1	6.1, 12°(b)
Butylbenzenes	2709	30	3	3, 31°(c)
tert-Butylcyclohexyl chloroformate	2747	60	6.1	6.1, 17°(c)
1-Butylene (1-Butene)	1012	23	3	2, 3°(b)
cis-2-Butylene (cis-2-Butene)	1012	23	3	2, 3°(b)
trans-2-Butylene (trans-2-Butene)	1012	23	3	2, 3°(b)
1,2-Butylene oxide, stabilized	3022	339	3	3, 3°(b)
N,n-Butylimidazole	2690	60	6.1	6.1, 12°(b)
Butyltoluenes	2667	60	6.1	6.1, 25°(c)
Butyltrichlorosilane	1747	X83	8+3	8, 37°(b)
1,4-Butynediol	2716	60	6.1	6.1, 14°(c)
Butyraldehyde	1129	33	3	3, 3°(b)
Butyraldoxime	2840	30	3	3, 31°(c)
Butyric acid	2820	80	8	8, 32°(c)
Butyric anhydride	2739	80	8	8, 32°(c)
Butyronitrile	2411	336	3+6.1	3, 11°(b)
Butyryl chloride	2353	338	3+8	3, 25°(b)
Cacodylic acid	1572	60	6.1	6.1, 51°(b)
Cadmium compound	2570	66	6.1	6.1, 61°(a)
Cadmium compound	2570	60	6.1	6.1, 61°(b),(c)
Caesium	1407	X423	4.3	4.3, 11°(a)
Caesium hydroxide	2682	80	8	8, 41°(b)
Caesium hydroxide, solution	2681	80	8	8, 42°(b),(c)
Caesium nitrate	1451	50	5.1	5.1, 22°(c)
Calcium	1401	423	4.3	4.3, 11°(b)
Calcium arsenate	1573	60	6.1	6.1, 51°(b)
Calcium arsenate and calcium arsenite mixture, solid	1574	60	6.1	6.1, 51°(b)
Calcium carbide	1402	423	4.3	4.3, 17°(b)
Calcium chlorate	1452	50	5.1	5.1, 11°(b)

Name of substance (a)	Substance Identification No. (Lower part) (b)	Hazard Identification No. (Upper part) (c)	Label (d)	Class and item number (e)
Calcium chlorate, aqueous solution	2429	50	5.1	5.1, 11°(b)
Calcium chlorite	1453	50	5.1	5.1, 14°(b)
Calcium cyanamide	1403	423	4.3	4.3, 19°(c)
Calcium dithionite	1923	40	4.2	4.2, 13°(b)
Calcium hypochlorite mixture, dry	2208	50	5.1	5.1, 15°(c)
Calcium hypochlorite, dry	1748	50	5.1	5.1, 15°(b)
Calcium hypochlorite, hydrated	2880	50	5.1	5.1, 15°(b)
Calcium hypochlorite, hydrated mixture	2880	50	5.1	5.1, 15°(b)
Calcium hypochlorite, mixture, dry	1748	50	5.1	5.1, 15°(b)
Calcium manganese silicon	2844	423	4.3	4.3, 12°(c)
Calcium nitrate	1454	50	5.1	5.1, 22°(c)
Calcium perchlorate	1455	50	5.1	5.1, 13°(b)
Calcium permanganate	1456	50	5.1	5.1, 17°(b)
Calcium peroxide	1457	50	5.1	5.1, 25°(b)
Calcium resinate	1313	40	4.1	4.1, 12°(c)
Calcium resinate, fused	1314	40	4.1	4.1, 12°(c)
Calcium silicide	1405	423	4.3	4.3, 12°(b),(c)
Camphor oil	1130	30	3	3, 31°(c)
Camphor, synthetic	2717	40	4.1	4.1, 6°(c)
Caproic acid	2829	80	8	8, 32°(c)
Carbon	1361	40	4.2	4.2, 1°(b),(c)
Carbon black	1361	40	4.2	4.2, 1°(b),(c)
Carbon dioxide	1013	20	2	2, 5°(a)
Carbon dioxide containing not more than 35% ethylene oxide by mass	1041	239	3	2, 6°(c)
Carbon dioxide containing not less than 1% and not more than 10% oxygen by mass	1014	20	2	2, 6°(a)
Carbon dioxide containing not more than 35% ethylene oxide by mass	1952	239	3	2, 6°(c)
Carbon dioxide, deeply-refrigerated	2187	22	2	2, 7°(a)

Name of substance (a)	Substance Identification No. (Lower part) (b)	Hazard Identification No. (Upper part) (c)	Label (d)	Class and item number (e)
Carbon disulphide	1131	336	3+6.1	3, 18°(a)
Carbon monoxide	1016	236	6.1+3	2, 1°(bt)
Carbon tetrabromide	2516	60	6.1	6.1, 15°(c)
Carbon tetrachloride	1846	60	6.1	6.1, 15°(b)
Carbon sulphide	1131	336	3+6.1	3, 18°(a)
Carbon, activated	1362	40	4.2	4.2, 1°(c)
Cerium	3078	423	4.3	4.3, 13°(b)
Chloral, anhydrous, inhibited	2075	60	6.1	6.1, 17°(b)
Chlorate and borate mixture	1458	50	5.1	5.1, 11°(b)
Chlorate and magnesium chloride mixture	1459	50	5.1	5.1, 11°(b)
Chloric acid, aqueous solution	2626	50	5.1	5.1, 4°(b)
Chlorine	1017	266	6.1+8	2, 3°(at)
Chlorite solution with not less than 16% available chlorine	1908	80	8	8, 61°(b),(c)
1-Chloro-1,1-difluoroethane (R 142b)	2517	23	3	2, 3°(b)
1-Chloro-1,2,2,2-tetrafluoroethane (R 124)	1021	20	2	2, 3°(a)
1-Chloro-2,2,2-trifluoroethane (R 133a)	1983	20	2	2, 3°(a)
3-Chloro-4-methylphenyl isocyanate	2236	60	6.1	6.1, 19°(b)
4-Chloro-o-toluidine hydrochloride	1579	60	6.1	6.1, 17°(c)
Chloroacetaldehyde	2232	66	6.1	6.1, 17°(a)
Chloroacetic acid solution	1750	68	6.1+8	6.1, 27°(b)
Chloroacetic acid, molten	3250	68	6.1+8	6.1, 24°(b)
Chloroacetic acid, solid	1751	68	6.1+8	6.1, 27°(b)
Chloroacetone, stabilized	1695	60	6.1	6.1, 17°(b)
Chloroacetonitrile	2668	63	6.1+3	6.1, 11°(b)
Chloroacetophenone	1697	60	6.1	6.1, 17°(b)
Chloroacetyl chloride	1752	668	6.1+8	6.1, 27°(a)
Chloroanilines, liquid	2019	60	6.1	6.1, 12°(b)

Name of substance (a)	Substance Identification No. (Lower part) (b)	Hazard Identification No. (Upper part) (c)	Label (d)	Class and item number (e)
Chloroanilines, solid	2018	60	6.1	6.1, 12°(b)
Chloroanisidines	2233	60	6.1	6.1, 17°(c)
Chlorobenzene	1134	30	3	3, 31°(c)
Chlorobenzotrifluorides (o-, m-, p-)	2234	30	3	3, 31°(c)
Chlorobenzyl chlorides	2235	60	6.1	6.1, 17°(c)
Chlorobutanes	1127	33	3	3, 3°(b)
Chlorocresols	2669	60	6.1	6.1, 14°(b)
Chlorodifluoromethane (R 22)	1018	20	2	2, 3°(a)
Chlorodinitrobenzenes	1577	60	6.1	6.1, 12°(b)
Chloroform	1888	60	6.1	6.1, 15°(c)
Chloromethyl chloroformate	2745	68	6.1 + 8	6.1, 27°(b)
Chloromethyl ethyl ether	2354	336	3 + 6.1	3, 16°(b)
Chloronitroanilines	2237	60	6.1	6.1, 17°(c)
Chloronitrobenzenes	1578	60	6.1	6.1, 12°(b)
Chloronitrotoluenes	2433	60	6.1	6.1, 17°(c)
Chloropentafluoroethane (R 115)	1020	20	2	2, 3°(a)
Chlorophenolates, liquid	2904	80	8	8, 62°(c)
Chlorophenolates, solid	2905	80	8	8, 62°(c)
Chlorophenols, liquid	2021	60	6.1	6.1, 17°(c)
Chlorophenols, solid	2020	60	6.1	6.1, 17°(c)
Chlorophenyltrichlorosilane	1753	X80	8	8, 36°(b)
Chloropicrin	1580	66	6.1	6.1, 17°(a)
Chloroplatinic acid, solid	2507	80	8	8, 16°(c)
Chloroprene, inhibited	1991	336	3 + 6.1	3, 16°(a)
2-Chloropropane	2356	33	3	3, 2°(a)
1-Chloropropane (Propyl chloride)	1278	33	3	3, 2°(b)
3-Chloropropanol-1	2849	60	6.1	6.1, 17°(c)
2-Chloropropene	2456	33	3	3, 1°(a)
2-Chloropropionic acid	2511	80	8	8, 32°(c)
2-Chloropyridine	2822	60	6.1	6.1, 12°(b)

Name of substance (a)	Substance Identification No. (Lower part) (b)	Hazard Identification No. (Upper part) (c)	Label (d)	Class and item number (e)
Chlorosulphonic acid	1754	88	8	8, 12°(a)
Chlorotoluenes (o-, m-, p-)	2238	30	3	3, 31°(c)
Chlorotoluidines	2239	60	6.1	6.1, 17°(c)
Chlorotrifluoromethane (R 13)	1022	20	2	2, 5°(a)
Chromic acid, solution	1755	80	8	8, 17°(b),(c)
Chromic fluoride, solid	1756	80	8	8, 9°(b)
Chromic fluoride, solution	1757	80	8	8, 8°(b),(c)
Chromium nitrate	2720	50	5.1	5.1, 22°(c)
Chromium oxychloride	1758	88	8	8, 12°(a)
Chromium trioxide, anhydrous	1463	58	5.1 + 8	5.1, 31°(b)
Chromosulphuric acid	2240	88	8	8, 1°(a)
Coal tar distillates	1136	33	3	3, 3°(b)
Coal tar distillates	1136	30	3	3, 31°(c)
Coating solution	1139	33	3	3, 5°(a),(b),(c)
Coating solution	1139	30	3	3, 31°(c)
Cobalt naphthenates, powder	2001	40	4.1	4.1, 12°(c)
Cobalt resinate, precipitated	1318	40	4.1	4.1, 12°(c)
Copper acetoarsenite	1585	60	6.1	6.1, 51°(b)
Copper arsenite	1586	60	6.1	6.1, 51°(b)
Copper chlorate	2721	50	5.1	5.1, 11°(b)
Copper chloride	2802	80	8	8, 11°(c)
Copper cyanide	1587	60	6.1	6.1, 41°(b)
Copra	1363	40	4.2	4.2, 2°(c)
Cotton waste, oily	1364	40	4.2	4.2, 3°(c)
Cotton, wet	1365	40	4.2	4.2, 3°(c)
Cresols (o-,m-,p-)	2076	68	6.1 + 8	6.1, 27°(b)
Cresylic acid	2022	68	6.1 + 8	6.1, 27°(b)
Crotonaldehyde, stabilized	1143	663	6.1 + 3	6.1, 8°(a)
Crotonic acid	2823	80	8	8, 31°(c)

Name of substance (a)	Substance Identification No. (Lower part) (b)	Hazard Identification No. (Upper part) (c)	Label (d)	Class and item number (e)
Crotonylene (2-Butyne)	1144	339	3	3, 1°(a)
Cupriethylenediamine, solution	1761	86	8+6.1	8, 53°(b)(c)
Cyanogen bromide	1889	668	6.1+8	6.1, 27°(a)
Cyanuric chloride	2670	80	8	8, 39°(b)
Cyclobutyl chloroformate	2744	638	6.1+3+8	6.1, 28°(b)
1,5,9-Cyclododecatriene	2518	60	6.1	6.1, 25°(c)
Cycloheptane	2241	33	3	3, 3°(b)
Cycloheptatriene	2603	336	3+6.1	3, 19°(b)
Cycloheptene	2242	33	3	3, 3°(b)
Cyclohexane	1145	33	3	3, 3°(b)
Cycloheptene	2242	33	3	3, 3°(b)
Cyclohexanone	1915	30	3	3, 31°(c)
Cyclohexene	2256	33	3	3, 3°(b)
Cyclohexenyltrichlorosilane	1762	X80	8	8, 36°(b)
Cyclohexyl acetate	2243	30	3	3, 31°(c)
Cyclohexyl isocyanate	2488	63	6.1+3	6.1, 18°(b)
Cyclohexyl mercaptan	3054	30	3	3, 31°(c)
Cyclohexylamine	2357	83	8+3	8, 54°(b)
Cyclohexyltrichlorosilane	1763	X80	8	8, 36°(b)
Cyclooctadienes	2520	30	3	3, 31°(c)
Cyclooctatetraene	2358	33	3	3, 3°(b)
Cyclopentane	1146	33	3	3, 3°(b)
Cyclopentanol	2244	30	3	3, 31°(c)
Cyclopentanone	2245	30	3	3, 31°(c)
Cyclopentene	2246	33	3	3, 2°(b)
Cyclopropane	1027	23	3	2, 3°(b)
Cymenes (o-, m-, p-) (Methyl isopropyl benzenes)	2046	30	3	3, 31°(c)
Decaborane	1868	46	4.1+6.1	4.1, 16°(b)
Decahydronaphthalene	1147	30	3	3, 31°(c)

Name of substance (a)	Substance Identification No. (Lower part) (b)	Hazard Identification No. (Upper part) (c)	Label (d)	Class and item number (e)
n-Decane	2247	30	3	3, 31°(c)
Deuterium	1957	23	3	2, 1°(b)
1,2-Di-(dimethylamino) ethane	2372	33	3	3, 3°(b)
Di-n-amylamine	2841	36	3+6.1	3, 32°(c)
Di-n-butylamine	2248	83	8+3	8, 54°(b)
Di-n-propyl ether	2384	33	3	3, 3°(b)
Diacetone alcohol, chemically pure	1148	30	3	3, 31°(c)
Diacetone alcohol, technically-pure	1148	33	3	3, 3°(b)
Diallyl ether	2360	336	3+6.1	3, 17°(b)
Diallylamine	2359	338	3+8+6.1	3, 27°(b)
4,4'-Diaminodiphenylmethane	2651	60	6.1	6.1, 12°(c)
Dibenzylchlorosilane	2434	X80	8	8, 36°(b)
Dibromobenzene	2711	30	3	3, 31°(c)
1,2-Dibromobutan-3-one	2648	60	6.1	6.1, 17°(b)
Dibromochloropropanes	2872	60	6.1	6.1, 15°(c)
Dibromomethane	2664	60	6.1	6.1, 15°(c)
Dibutyl ethers	1149	30	3	3, 31°(c)
Dibutylaminoethanol	2873	60	6.1	6.1, 12°(c)
1,2-Dichloro-1,1,2,2-tetrafluoroethane (R 114)	1958	20	2	2, 3°(a)
1,1-Dichloro-1-nitroethane	2650	60	6.1	6.1, 17°(b)
Dichloroacetic acid	1764	80	8	8, 32°(b)1.
1,3-Dichloroacetone	2649	60	6.1	6.1, 17°(b)
Dichloroacetyl chloride	1765	X80	8	8, 35°(b)1.
Dichloroanilines	1590	60	6.1	6.1, 12°(b)
o-Dichlorobenzene	1591	60	6.1	6.1, 15°(c)
2,2'-Dichlorodiethyl ether	1916	63	6.1+3	6.1, 16°(b)
Dichlorodifluoromethane (R 12)	1028	20	2	2, 3°(a)
Dichlorodifluoromethane and ethylene oxide mixture with not more than 12% ethylene oxide by mass	3070	26	6.1	2, 4°(at)

Name of substance (a)	Substance Identification No. (Lower part) (b)	Hazard Identification No. (Upper part) (c)	Label (d)	Class and item number (e)
1,2-Dichloroethane (Ethylene dichloride)	1184	336	3+6.1	3, 16°(b)
1,1-Dichloroethane (Ethylidene chloride)	2362	33	3	3, 3°(b)
1,2-Dichloroethylene	1150	33	3	3, 3°(b)
Dichlorofluoromethane (R 21)	1029	20	2	2, 3°(a)
Dichloroisocyanuric acid salts	2465	50	5.1	5.1, 26°(b)
Dichloroisocyanuric acid, dry	2465	50	5.1	5.1, 26°(b)
Dichloroisopropyl ether	2490	60	6.1	6.1, 17°(b)
Dichloromethane	1593	60	6.1	6.1, 15°(c)
Dichloropentanes	1152	30	3	3, 31°(c)
Dichlorophenyl isocyanates	2250	60	6.1	6.1, 19°(b)
Dichlorophenyltrichlorosilane	1766	X80	8	8, 36°(b)
1,2-Dichloropropane	1279	33	3	3, 3°(b)
1,3-Dichloropropanol-2	2750	60	6.1	6.1, 17°(b)
Dichloropropenes	2047	30	3	3, 31°(c)
Dichloropropenes	2047	33	3	3, 3°(b)
Dicyclohexylamine	2565	80	8	8, 53°(c)
Dicyclohexylammonium nitrite	2687	40	4.1	4.1, 11°(c)
Dicyclopentadiene	2048	30	3	3, 31°(c)
Didymium nitrate	1465	50	5.1	5.1, 22°(c)
Diesel fuel	1202	30	3	3, 31°(c)
Diethoxymethane	2373	33	3	3, 3°(b)
3,3-Diethoxypropene	2374	33	3	3, 3°(b)
Diethyl carbonate (Ethyl carbonate)	2366	30	3	3, 31°(c)
Diethyl ether (ethyl ether)	1155	33	3	3, 2°(a)
Diethyl ketone	1156	33	3	3, 3°(b)
Diethyl sulphate	1594	60	6.1	6.1, 14°(b)
Diethyl sulphide	2375	33	3	3, 3°(b)
Diethylamine	1154	338	3+8	3, 22°(b)
Diethylaminoethanol	2686	30	3	3, 31°(c)

Name of substance (a)	Substance Identification No. (Lower part) (b)	Hazard Identification No. (Upper part) (c)	Label (d)	Class and item number (e)
Diethylaminopropylamine	2684	38	3+8	3, 33°(c)
N,N-Diethylaniline	2432	60	6.1	6.1, 12°(c)
Diethylbenzenes (o-, m-, p-)	2049	30	3	3, 31°(c)
Diethyldichlorosilane	1767	X83	8+3	8, 37°(b)
Diethylenetriamine	2079	80	8	8, 53°(b)
N,N-Diethylethylenediamine	2685	83	8+3	8, 54°(b)
Diethylthiophosphoryl chloride	2751	80	8	8, 35°(b)1.
Diethylzinc	1366	X333	4.2+4.3	4.2, 31°(a)
1,1-Difluoroethane (R 152a)	1030	23	3	2, 3°(b)
1,1-Difluoroethylene (Vinylidene fluoride)	1959	239	3	2, 5°(c)
Difluorophosphoric acid, anhydrous	1768	80	8	8, 8°(b)
2,3-Dihdropyran	2376	33	3	3, 3°(b)
Diisobutyl ketone	1157	30	3	3, 31°(c)
Diisobutylamine	2361	38	3+8	3, 33°(c)
Diisobutylene, isomeric compounds	2050	33	3	3, 3°(b)
Diisooctyl acid phosphate	1902	80	8	8, 38°(c)
Diisopropyl ether	1159	33	3	3, 3°(b)
Diisopropylamine	1158	338	3+8	3, 22°(b)
Diketene, inhibited	2521	663	6.1+3	6.1, 13°(a)
1,2-Dimethoxyethane	2252	33	3	3, 3°(b)
1,1-Dimethoxyethane	2377	33	3	3, 3°(b)
Dimethyl carbonate	1161	33	3	3, 3°(b)
Dimethyl disulphide	2381	33	3	3, 3°(b)
Dimethyl ether	1033	23	3	2, 3°(b)
Dimethyl sulphate	1595	668	6.1+8	6.1, 27°(a)
Dimethyl sulphide	1164	33	3	3, 2°(b)
Dimethyl thiophosphoryl chloride	2267	68	6.1+8	6.1, 27°(b)
Dimethylamine, anhydrous	1032	236	3+6.1	2, 3°(bt)
Dimethylamine aqueous solution	1160	338	3+8	3, 22°(b)

Name of substance (a)	Substance Identification No. (Lower part) (b)	Hazard Identification No. (Upper part) (c)	Label (d)	Class and item number (e)
2-Dimethylaminoacetonitrile	2378	336	3+6.1	3, 11°(b)
2-Dimethylaminoethanol	2051	83	8+3	8, 54°(b)
Dimethylaminoethyl methacrylate	2522	69	6.1	6.1, 12°(b)
N,N-Dimethylaniline	2253	60	6.1	6.1, 12°(b)
2,3-Dimethylbutane	2457	33	3	3, 3°(b)
1,3-Dimethylbutylamine	2379	338	3+8	3, 22°(b)
Dimethylcarbamoyl chloride	2262	80	8	8, 35°(b)1.
Dimethylcyclohexanes	2263	33	3	3, 3°(b)
Dimethylcyclohexylamine	2264	83	8+3	8, 54°(b)
Dimethyldichlorosilane	1162	X338	3+8	3, 21°(b)
Dimethyldiethoxysilane	2380	33	3	3, 3°(b)
Dimethyldioxanes	2707	33	3	3, 3°(b)
Dimethyldioxanes	2707	30	3	3, 31°(c)
N,N-Dimethylformamide	2265	30	3	3, 31°(c)
Dimethylhydrazine, symmetrical	2382	663	6.1+3	6.1, 7°(a)2.
Dimethylhydrazine, unsymmetrical	1163	663	6.1+3+8	6.1, 7°(a)1.
Dimethyl-N-propylamine	2266	338	3+8	3, 22°(b)
Dimethylzinc	1370	X333	4.2+4.3	4.2, 31°(a)
Dinitro-o-cresol	1598	60	6.1	6.1, 12°(b)
Dinitroanilines	1596	60	6.1	6.1, 12°(b)
Dinitrobenzenes	1597	60	6.1	6.1, 12°(b)
Dinitrophenol solutions	1599	60	6.1	6.1, 12°(b),(c)
Dinitrotoluenes	2038	60	6.1	6.1, 12°(b)
Dinitrotoluenes, molten	1600	60	6.1	6.1, 24°(b)1.
Dioxane	1165	33	3	3, 3°(b)
Dioxolane	1166	33	3	3, 3°(b)
Dipentene	2052	30	3	3, 31°(c)
Diphenylamine chloroarsine	1698	66	6.1	6.1, 34°(a)
Diphenylchloroarsine	1699	66	6.1	6.1, 34°(a)
Dipenyldichlorosilane	1769	X80	8	8, 36°(b)

Name of substance (a)	Substance Identification No. (Lower part) (b)	Hazard Identification No. (Upper part) (c)	Label (d)	Class and item number (e)
Diphenylmethane-4,4'-diisocyanate	2489	60	6.1	6.1, 19°(c)
Diphenylmethyl bromide	1770	80	8	8, 65°(b)
Dipropyl ketone	2710	30	3	3, 31°(c)
Dipropylamine	2383	338	3+8	3, 22°(b)
Disodium trioxosilicate pentahydrate	3253	80	8	8, 41°(c)
Divinyl ether inhibited	1167	339	3	3, 2°(a)
Dodecyltrichlorosilane	1771	X80	8	8, 36°(b)
Epibromohydrin	2558	663	6.1+3	6.1, 16°(a)
Epichlorohydrin	2023	63	6.1+3	6.1, 16°(b)
1,2-Epoxy-3-ethoxypropane	2752	30	3	3, 31°(c)
Ethane	1035	23	3	2, 5°(b)
Ethane, deeply-refrigerated	1961	223	3	2, 7°(b)
Ethanol (Ethyl alcohol) or ethanol (Ethyl alcohol) solution containing more than 70 vol.-% alcohol	1170	33	3	3, 3°(b)
Ethanolamine or ethanolamine solution	2491	80	8	8, 53°(c)
Ethanol solution (Ethyl alcohol solution) containing more than 24 vol.-% and not more than 70 vol.-% alcohol	1170	30	3	3, 31°(c)
Ethyl acetate	1173	33	3	3, 3°(b)
Ethyl acrylate, inhibited	1917	339	3	3, 3°(b)
Ethyl amyl ketones	2271	30	3	3, 31°(c)
Ethyl borate	1176	33	3	3, 3°(b)
Ethyl bromide	1891	60	6.1	6.1, 15°(b)
Ethyl bromoacetate	1603	63	6.1+3	6.1, 16°(b)
Ethyl butyl ether	1179	33	3	3, 3°(b)
Ethyl butyrate	1180	30	3	3, 31°(c)
Ethyl chloride	1037	236	3+6.1	2, 3°(b)
Ethyl chloroacetate	1181	63	6.1+3	6.1, 16°(b)
Ethyl chloroformate	1182	663	6.1+3+8	6.1, 10°(a)

Name of substance (a)	Substance Identification No. (Lower part) (b)	Hazard Identification No. (Upper part) (c)	Label (d)	Class and item number (e)
Ethyl chlorothioformate	2826	80	8	8, 64°(b)
Ethyl crotonate	1862	33	3	3, 3°(b)
Ethyl cyanoacetate	2666	60	6.1	6.1, 12°(c)
Ethyl formate	1190	33	3	3, 3°(b)
Ethyl isobutyrate	2385	33	3	3, 3°(b)
Ethyl lactate	1192	30	3	3, 31°(c)
Ethyl mercaptan	2363	33	3+6.1	3, 2°(a)
Ethyl methacrylate	2277	339	3	3, 3°(b)
Ethyl methyl ketone (methyl ethyl ketone)	1193	33	3	3, 3°(b)
Ethyl nitrite solution	1194	336	3+6.1	3, 15°(a)
Ethyl orthoformate	2524	30	3	3, 31°(c)
Ethyl oxalate	2525	60	6.1	6.1, 14°(c)
Ethyl propionate	1195	33	3	3, 3°(b)
Ethyl propyl ether	2615	33	3	3, 3°(b)
Ethyl 2-chloropropionate	2935	30	3	3, 31°(c)
N-Ethyl-N-benzylaniline	2274	60	6.1	6.1, 12°(c)
Ethylamine, anhydrous	1036	236	3+6.1	2, 3°(bt)
Ethylamine, aqueous solution	2270	338	3+8	3, 22°(b)
N-Ethylaniline	2272	60	6.1	6.1, 12°(c)
2-Ethylaniline	2273	60	6.1	6.1, 12°(c)
Ethylbenzene	1175	33	3	3, 3°(b)
N-Ethylbenzyltoluidines	2753	60	6.1	6.1, 12°(c)
2-Ethylbutanol	2275	30	3	3, 31°(c)
Ethylbutyl acetate	1177	30	3	3, 31°(c)
2-Ethylbutyraldehyde	1178	33	3	3, 3°(b)
Ethylchloroarsine	1892	66	6.1	6.1, 34°(a)
Ethylchlorosilane	1183	X338	4.3+3+8	4.3, 1°(a)
Ethylene	1962	23	3	2, 5°(b)
Ethylene chlorohydrin	1135	663	6.1+3	6.1, 16°(a)

Name of substance (a)	Substance Identification No. (Lower part) (b)	Hazard Identification No. (Upper part) (c)	Label (d)	Class and item number (e)
Ethylene dibromide	1605	66	6.1	6.1, 15°(a)
Ethylene glycol diethyl ether	1153	30	3	3, 31°(c)
Ethylene glycol monobutyl ether	2369	60	6.1	6.1, 14°(c)
Ethylene glycol monoethyl ether	1171	30	3	3, 31°(c)
Ethylene glycol monoethyl ether acetate	1172	30	3	3, 31°(c)
Ethylene glycol monomethyl ether	1188	30	3	3, 31°(c)
Ethylene glycol monomethyl ether acetate	1189	30	3	3, 31°(c)
Ethylene oxide and propylene oxide mixture	2983	336	3+6.1	3, 17°(a)
Ethylene oxide containing more than 10% but not more than 50% carbon dioxide	1041	236	3+6.1	2, 6°(ct)
Ethylene oxide containing not more than 10% carbon dioxide by mass	1041	236	3+6.1	2, 4°(ct)
Ethylene oxide with nitrogen	1040	236	3+6.1	2, 4°(ct)
Ethylene, acetylene and propylene in mixture, refrigerated liquid	3138	223	3	2, 8°(b)
Ethylene, deeply-refrigerated	1038	223	3	2, 7°(b)
Ethylenediamine	1604	83	8+3	8, 54°(b)
Ethyleneimine, inhibited	1185	663	6.1+3	6.1, 4°
2-Ethylhexyl chloroformate	2748	68	6.1+8	6.1, 27°(b)
2-Ethylhexylamine	2276	38	3+8	3, 33°(c)
Ethylphenyldichlorosilane	2435	X80	8	8, 36°(b)
1-Ethylpiperidine	2386	338	3+8	3, 23°(b)
N-Ethyltoluidines	2754	60	6.1	6.1, 12°(b)
Ethyltrichlorosilane	1196	X338	3+8	3, 21°(b)
Extracts, aromatic, liquid	1169	30	3	3, 31°(c)
Extracts, aromatic, liquid	1169	33	3	3, 5°(a),(b),(c)
Extracts, flavouring, liquid	1197	33	3	3, 5°(a),(b),(c)
Extracts, flavouring, liquid	1197	30	3	3, 31°(c)

Name of substance (a)	Substance Identification No. (Lower part) (b)	Hazard Identification No. (Upper part) (c)	Label (d)	Class and item number (e)
Ferric arsenate	1606	60	6.1	6.1, 51°(b)
Ferric arsenite	1607	60	6.1	6.1, 51°(b)
Ferric chloride, anhydrous	1773	80	8	8, 11°(c)
Ferric chloride solution	2582	80	8	8, 5°(c)
Ferric nitrate	1466	50	5.1	5.1, 22°(c)
Ferrocium	1323	40	4.1	4.1, 13°(b)
Ferrosilicon	1408	462	4.3+6.1	4.3, 15°(c)
Ferrous arsenate	1608	60	6.1	6.1, 51°(b)
Ferrous metal borings, shavings, turnings or cuttings	2793	40	4.2	4.2, 12°(c)
Fluoroboric acid	1775	80	8	8, 8°(b)
Fluoroacetic acid	2642	66	6.1	6.1, 17°(a)
Fluoroanilines	2941	60	6.1	6.1, 12°(c)
Fluorobenzene	2387	33	3	3, 3°(b)
Fluorophosphoric acid, anhydrous	1776	80	8	8, 8°(b)
Fluorosilicic acid	1778	80	8	8, 8°(b)
Fluorosulphonic acid	1777	88	8	8, 8°(a)
Fluorotoluenes	2388	33	3	3, 3°(b)
Formaldehyde solution	2209	80	8	8, 63°(c)
Formaldehyde solution, flammable	1198	38	3+8	3, 33°(c)
Formic acid	1779	80	8	8, 32°(b)1.
Fuel, aviation, turbine engine	1863	33	3	3, 1°(a), 2°(a),(b), 3°(b)
Fuel, aviation, turbine engine	1863	30	3	3, 31°(c)
Fumaryl chloride	1780	80	8	8, 35°(b)1.
Furan	2389	33	3	3, 1°a
Furfural (furfuraldehyde)	1199	30	3	3, 31°(c)
Furfuryl alcohol	2874	60	6.1	6.1, 14°(c)
Furfurylamine	2526	38	3+8	3, 33°(c)
Fusel oil	1201	33	3	3, 3°(b)
Fusel oil	1201	30	3	3, 31°(c)

Name of substance (a)	Substance Identification No. (Lower part) (b)	Hazard Identification No. (Upper part) (c)	Label (d)	Class and item number (e)
Gallium	2803	80	8	8, 65°(c)
Gas mixture R 500	2602	20	2	2, 4°(a)
Gas mixture R 502	1973	20	2	2, 4°(a)
Gas mixture R 503	2599	20	2	2, 6°(a)
Gas oil	1202	30	3	3, 31°(c)
Glycerol alpha-monochlorohydrin	2689	60	6.1	6.1, 17°(c)
Glycidaldehyde	2622	336	3 + 6.1	3, 17°(b)
Guanidine nitrate	1467	50	5.1	5.1, 22°(c)
Hafnium powder, dry	2545	40	4.2	4.2, 12°(b),(c)
Hafnium powder, wetted	1326	40	4.1	4.1, 13°(b)
Heating oil (light)	1202	30	3	3, 31°(c)
Helium, compressed	1046	20	2	2, 1°(a)
Helium, deeply-refrigerated	1963	22	2	2, 7°(a)
n-Heptaldehyde	3056	30	3	3, 31°(c)
Heptanes	1206	33	3	3, 3°(b)
n-Heptene	2278	33	3	3, 3°(b)
Hexachloroacetone	2661	60	6.1	6.1, 17°(c)
Hexachlorobenzene	2729	60	6.1	6.1, 15°(c)
Hexachlorobutadiene	2279	60	6.1	6.1, 15°(c)
Hexachlorocyclopentadiene	2646	66	6.1	6.1, 15°(a)
Hexachlorophene	2875	60	6.1	6.1, 17°(c)
Hexadecyltrichlorosilane	1781	X80	8	8, 36°(b)
Hexadiene	2458	33	3	3, 3°(b)
Hexaethyl tetraphosphate	1611	60	6.1	6.1, 23°(b)
Hexafluoroacetone hydrate	2552	60	6.1	6.1, 17°(b)
Hexafluoroethane (R 116)	2193	20	2	2, 5°(a)
Hexafluorophosphoric acid	1782	80	8	8, 8°(b)
Hexafluoropropylene (R 1216)	1858	26	6.1	2, 3°(at)
Hexaldehyde	1207	30	3	3, 31°(c)
Hexamethylene diisocyanate	2281	60	6.1	6.1, 19°(b)

Name of substance (a)	Substance Identification No. (Lower part) (b)	Hazard Identification No. (Upper part) (c)	Label (d)	Class and item number (e)
Hexamethylenediamine, solid	2280	80	8	8, 52°(c)
Hexamethylenediamine, solution	1783	80	8	8, 53°(b), (c)
Hexamethyleneimine	2493	338	3+8	3, 23°(b)
Hexamethylenetetramine	1328	40	4.1	4.1, 6°(c)
Hexanes	1208	33	3	3, 3°(b)
Hexanols	2282	30	3	3, 31°(c)
1-Hexene	2370	33	3	3, 3°(b)
Hexyltrichlorosilane	1784	X80	8	8, 36°(b)
Hydrazine, aqueous solution	2030	86	8+6.1	8, 44°(b)
Hydrazine hydrate	2030	86	8+6.1	8, 44°(b)
Hydrazine, aqueous solution	3293	60	6.1	6.1, 65°(c)
Hydriodic acid, solution	1787	80	8	8, 5°(b),(c)
Hydrobromic acid, solution	1788	80	8	8, 5°(b),(c)
Hydrochloric acid, solution	1789	80	8	8, 5°(b),(c)
Hydrofluoric acid and sulphuric acid mixture	1786	886	8+6.1	8, 7°(a)
Hydrofluoric acid solution containing between 60 and 85% hydrogen fluoride	1790	886	8+6.1	8, 7°(a)
Hydrofluoric acid solution containing less than 60% hydrogen fluoride	1790	86	8+6.1	8, 7°(b)
Hydrofluoric acid solution containing more than 85% hydrogen fluoride	1790	886	8+6.1	8, 6°
Hydrogen bromide	1048	286	8+6.1	2, 3°(at)
Hydrogen chloride	1050	286	8+6.1	2, 5°(at)
Hydrogen cyanide, aqueous solution (Hydrocyanic acid)	1613	663	6.1+3	6.1, 2°
Hydrogen cyanide, solution in alcohol	3294	663	6.1+3	6.1, 2°
Hydrogen fluoride, anhydrous	1052	886	8+6.1	8, 6°
Hydrogen peroxide and peroxyacetic acid mixture, stabilized	3149	58	5.1+8	5.1, 1°(b)
Hydrogen peroxide, aqueous solution	2014	58	5.1+8	5.1, 1°(b)

Name of substance (a)	Substance Identification No. (Lower part) (b)	Hazard Identification No. (Upper part) (c)	Label (d)	Class and item number (e)
Hydrogen peroxide, aqueous solution	2984	50	5.1	5.1, 1°(c)
Hydrogen peroxide, aqueous solution, stabilized	2015	559	5.1+8	5.1, 1°(a)
Hydrogen peroxide, stabilized	2015	559	5.1+8	5.1, 1°(a)
Hydrogen sulphide	1053	236	3+6.1	2, 3°(bt)
Hydrogen, compressed	1049	23	3	2, 1°(b)
Hydrogen, deeply-refrigerated	1966	223	3	2, 7°(b)
Hydroquinone	2662	60	6.1	6.1, 14°(c)
Hydroxylamine sulphate	2865	80	8	8, 16°(c)
Hypochlorite solution with between 5 and 16% active chlôrine	1791	80	8	8, 61°(b),(c)
3,3'-Iminodipropylamine	2269	80	8	8, 53°(c)
Iodine monochloride	1792	80	8	8, 12°(b)
Iodine pentafluoride	2495	568	5.1+6.1+8	5.1, 5°
2-Iodobutane	2390	33	3	3, 3°(b)
Iodomethylpropanes	2391	33	3	3, 3°(b)
Iodopropanes	2392	30	3	3, 31°(c)
Iron oxide, spent	1376	40	4.2	4.2, 16°(c)
Iron pentacarbonyl	1994	663	6.1+3	6.1, 3°
Iron sponge, spent	1376	40	4.2	4.2, 16°(c)
Isobutane	1969	23	3	2, 3°(b)
Isobutanol	1212	30	3	3, 31°(c)
Isobutyl acetate	1213	33	3	3, 3°(b)
Isobutyl acrylate, inhibited	2527	39	3	3, 31°(c)
Isobutyl formate	2393	33	3	3, 3°(b)
Isobutyl isobutyrate	2528	30	3	3, 31°(c)
Isobutyl isocyanate	2486	336	3+6.1	3, 14°(b)
Isobutyl methacrylate, inhibited	2283	39	3	3, 31°(c)
Isobutyl propionate	2394	33	3	3, 3°(b)
Isobutylamine	1214	338	3+8	3, 22°(b)
Isobutylene	1055	23	3	2, 3°(b)

Name of substance (a)	Substance Identification No. (Lower part) (b)	Hazard Identification No. (Upper part) (c)	Label (d)	Class and item number (e)
Isobutyraldehyde	2045	33	3	3, 3°(b)
Isobutyric acid	2529	38	3+8	3, 33°(c)
Isobutyric anhydride	2530	38	3+8	3, 33°(c)
Isobutyronitrile	2284	336	3+6.1	3, 11°(b)
Isobutryl chloride	2395	338	3+8	3, 25°(b)
Isocyanatobenzotrifluorides	2285	63	6.1+3	6.1, 18°(b)
Isoheptene	2287	33	3	3, 3°(b)
Isohexene	2288	33	3	3, 3°(b)
Isooctenes	1216	33	3	3, 3°(b)
Isopenten	2371	33	3	3, 1°(a)
Isophorone diisocyanate	2290	60	6.1	6.1, 19°(c)
Isophoronediamine	2289	80	8	8, 53°(c)
Isoprene, inhibited	1218	339	3	3, 2°(a)
Isopropanol (Isopropyl alcohol)	1219	33	3	3, 3°(b)
Isopropenyl acetate	2403	33	3	3, 3°(b)
Isopropenylbenzene	2303	30	3	3, 31°(c)
Isopropyl 2-chloropropionate	2934	30	3	3, 31°(c)
Isopropyl acetate	1220	33	3	3, 3°(b)
Isopropyl acid phosphate	1793	80	8	8, 38°(c)
Isopropyl butyrate	2405	30	3	3, 31°(c)
Isopropyl chloroacetate	2947	30	3	3, 31°(c)
Isopropyl isobutyrate	2406	33	3	3, 3°(b)
Isopropyl isocyanate	2483	336	3+6.1	3, 14°(a)
Isopropyl propionate	2409	33	3	3, 3°(b)
Isopropylamine	1221	338	3+8	3, 22°(a)
Isopropylbenzene (Cumene)	1918	30	3	3, 31°(c)
Kerosene	1223	30	3	3, 31°(c)
Krypton, compressed	1056	20	2	2, 1°(a)
Krypton, deeply-refrigerated	1970	22	2	2, 7°(a)
Lead acetate	1616	60	6.1	6.1, 62°(c)

Name of substance (a)	Substance Identification No. (Lower part) (b)	Hazard Identification No. (Upper part) (c)	Label (d)	Class and item number (e)
Lead arsenates	1617	60	6.1	6.1, 51°(b)
Lead arsenites	1618	60	6.1	6.1, 51°(b)
Lead cyanide	1620	60	6.1	6.1, 41°(b)
Lead dioxide	1872	56	5.1+6.1	5.1, 29°(c)
Lead nitrate	1469	56	5.1+6.1	5.1, 29°(c)
Lead perchlorate	1470	56	5.1+6.1	5.1, 29°(b)
Lead phosphite, dibasic	2989	40	4.1	4.1, 11°(b),(c)
Lead sulphate	1794	80	8	8, 1°(b)
Lithium	1415	X423	4.3	4.3, 11°(a)
Lithium alkyls	2445	X333	4.2+4.3	4.2, 31°(a)
Lithium ferrosilicon	2830	423	4.3	4.3, 12°(b)
Lithium hydride, fused solid	2805	423	4.3	4.3, 16°(b)
Lithium hydroxide, monohydrate	2680	80	8	8, 41°(b)
Lithium hydroxide, solution	2679	80	8	8, 42°(b),(c)
Lithium hypochlorite, mixture or dry	1471	50	5.1	5.1, 15°(b)
Lithium nitrate	2722	50	5.1	5.1, 22°(c)
Lithium peroxide	1472	50	5.1	5.1, 25°(b)
Lithium silicon	1417	423	4.3	4.3, 12°(b)
London purple	1621	60	6.1	6.1, 51°(b)
Magnesium	1869	40	4.1	4.1, 13°(c)
Magnesium alkyls	3053	X333	4.2+4.3	4.2, 31°(a)
Magnesium alloys	1869	40	4.1	4.1, 13°(c)
Magnesium arsenate	1622	60	6.1	6.1, 51°(b)
Magnesium bromate	1473	50	5.1	5.1, 16°(b)
Magnesium chlorate	2723	50	5.1	5.1, 11°(b)
Magnesium diamide	2004	40	4.2	4.2, 16°(b)
Magnesium diphenyl	2005	X333	4.2+4.3	4.2, 31°(a)
Magnesium fluorosilicate	2853	60	6.1	6.1, 64°(c)
Magnesium granules, coated	2950	423	4.3	4.3, 11°(c)
Magnesium nitrate	1474	50	5.1	5.1, 22°(c)

Name of substance (a)	Substance Identification No. (Lower part) (b)	Hazard Identification No. (Upper part) (c)	Label (d)	Class and item number (e)
Magnesium perchlorate	1475	50	5.1	5.1, 13°(b)
Magnesium peroxide	1476	50	5.1	5.1, 25°(b)
Magnesium powder	1418	423	4.3+4.2	4.3, 14°(b)
Magnesium silicide	2624	423	4.3	4.3, 12°(b)
Maleic anhydride	2215	80	8	8, 31°(c)
Malononitrile	2647	60	6.1	6.1, 12°(b)
Maneb	2210	40	4.2+4.3	4.2, 16°(c)
Maneb preparation	2210	40	4.2+4.3	4.2, 16°(c)
Maneb preparation, stabilized	2968	423	4.3	4.3, 20°(c)
Maneb, stabilized	2968	423	4.3	4.3, 20°(c)
Manganese nitrate	2724	50	5.1	5.1, 22°(c)
Manganese resinate	1330	40	4.1	4.1, 12°(c)
Mercuric arsenate	1623	60	6.1	6.1, 51°(b)
Mercuric chloride	1624	60	6.1	6.1, 52°(b)
Mercuric nitrate	1625	60	6.1	6.1, 52°(b)
Mercurous nitrate	1627	60	6.1	6.1, 52°(b)
Mercury	2809	80	8	8, 66°(c)
Mercury acetate	1629	60	6.1	6.1, 52°(b)
Mercury ammonium chloride	1630	60	6.1	6.1, 52°(b)
Mercury benzoate	1631	60	6.1	6.1, 52°(b)
Mercury bromides	1634	60	6.1	6.1, 52°(b)
Mercury cyanide	1636	60	6.1	6.1, 41°(b)
Mercury gluconate	1637	60	6.1	6.1, 52°(b)
Mercury iodide	1638	60	6.1	6.1, 52°(b)
Mercury nucleate	1639	60	6.1	6.1, 52°(b)
Mercury oleate	1640	60	6.1	6.1, 52°(b)
Mercury oxide	1641	60	6.1	6.1, 52°(b)
Mercury oxycyanide, desensitized	1642	60	6.1	6.1, 41°(b)
Mercury potassium iodide	1643	60	6.1	6.1, 52°(b)
Mercury salicylate	1644	60	6.1	6.1, 52°(b)

Name of substance (a)	Substance Identification No. (Lower part) (b)	Hazard Identification No. (Upper part) (c)	Label (d)	Class and item number (e)
Mercury sulphate	1645	60	6.1	6.1, 52°(b)
Mercury thiocyanate	1646	60	6.1	6.1, 52°(b)
Mesityl oxide	1229	30	3	3, 31°(c)
Metal catalyst, dry	2881	40	4.2	4.2, 12°(b),(c)
Metal catalyst, wetted	1378	40	4.2	4.2, 12°(b)
Metaldehyde	1332	40	4.1	4.1, 6°(c)
Methacrylaldehyde, inhibited	2396	336	3+6.1	3, 17°(b)
Methacrylic acid, inhibited	2531	89	8	8, 32°(c)
Methacrylonitrile, inhibited	3079	336	3+6.1	3, 11°(a)
Methallyl alcohol	2614	30	3	3, 31°(c)
Methane, compressed	1971	23	3	2, 1°(b)
Methane, deeply-refrigerated	1972	223	3	2, 7°(b)
Methanesulphonyl chloride	3246	668	6.1+8	6.1, 27°(a)
Methanol	1230	336	3+6.1	3, 17°(b)
1-Methoxy-2-propanol	3092	30	3	3, 31°(c)
4-Methoxy-4-methylpentan-2-one	2293	30	3	3, 31°(c)
Methoxymethyl isocyanate	2605	336	3+6.1	3, 14°(a)
Methyl acetate	1231	33	3	3, 3°(b)
Methyl acrylate, inhibited	1919	339	3	3, 3°(b)
Methyl benzoate	2938	60	6.1	6.1, 14°(c)
Methyl bromide	1062	26	6.1	2, 3°(at)
Methyl bromide and ethylene dibromide mixture, liquid	1647	66	6.1	6.1, 15°(a)
Methyl bromoacetate	2643	60	6.1	6.1, 17°(b)
Methyl butyrate	1237	33	3	3, 3°(b)
Methyl chloride	1063	236	3+6.1	2, 3°(bt)
Methyl chloroacetate	2295	63	6.1+3	6.1, 16°(b)
Methyl chloroformate	1238	663	6.1+3+8	6.1, 10°(a)
Methyl chloromethyl ether	1239	663	6.1+3	6.1, 9°(a)
Methyl dichloroacetate	2299	60	6.1	6.1, 17°(c)

Name of substance (a)	Substance Identification No. (Lower part) (b)	Hazard Identification No. (Upper part) (c)	Label (d)	Class and item number (e)
Methyl formate	1243	33	3	3, 1°(a)
Methyl iodide	2644	60	6.1	6.1, 15°(b)
Methyl isobutyl carbinol	2053	30	3	3, 31°(c)
Methyl isobutyl ketone	1245	33	3	3, 3°(b)
Methyl isopropenyl ketone, inhibited	1246	339	3	3, 3°(b)
Methyl isothiocyanate	2477	63	6.1+3	6.1, 20°(b)
Methyl isovalerate	2400	33	3	3, 3°(b)
Methyl magnesium bromide in ethyl ether	1928	X323	4.3+3	4.3, 3°(a)
Methyl mercaptan	1064	236	3+6.1	2, 3°(bt)
Methyl methacrylate monomer, inhibited	1247	339	3	3, 3°(b)
Methyl orthosilicate (Tetramethoxysilane)	2606	663	6.1+3	6.1, 8°(a)
Methyl propionate	1248	33	3	3, 3°(b)
Methyl propyl ether	2612	33	3	3, 2°(b)
Methyl propyl ketone	1249	33	3	3, 3°(b)
Methyl tert-butyl ether	2398	33	3	3, 3°(b)
Methyl trichloroacetate	2533	60	6.1	6.1, 17°(c)
Methyl vinyl ether	1087	236	3+6.1	2, 3°(ct)
Methyl vinyl ketone	1251	339	3	3, 3°(b)
2-Methyl-1-butene	2459	33	3	3, 1°(a)
3-Methyl-1-butene (Isopropylethylene)	2561	33	3	3, 1°(a)
2-Methyl-2-butene	2460	33	3	3, 2°(b)
Methyl 2-chloropropionate	2933	30	3	3, 31°(c)
2-Methyl-5-ethylpyridine	2300	60	6.1	6.1, 12°(c)
Methylal	1234	33	3	3, 2°(b)
Methylallyl chloride	2554	33	3	3, 3°(b)
Methylamine, anhydrous	1061	236	3+6.1	2, 3°(bt)
Methylamine, aqueous solution	1235	338	3+8	3, 22°(b)
Methylamyl acetate	1233	30	3	3, 31°(c)

Name of substance (a)	Substance Identification No. (Lower part) (b)	Hazard Identification No. (Upper part) (c)	Label (d)	Class and item number (e)
N-Methylaniline	2294	60	6.1	6.1, 12°(c)
alpha-Methylbenzyl alcohol	2937	60	6.1	6.1, 14°(c)
3-Methylbutan-2-one	2397	33	3	3, 3°(b)
N-Methylbutylamine	2945	338	3+8	3, 22°(b)
Methylcyclohexane	2296	33	3	3, 3°(b)
Methylcyclohexanols	2617	30	3	3, 31°(c)
Methylcyclohexanones	2297	30	3	3, 31°(c)
Methylcyclopentane	2298	33	3	3, 3°(b)
Methyldichlorosilane	1242	X338	4.3+3+8	4.3, 1°(a)
2-Methylfuran	2301	33	3	3, 3°(b)
5-Methylhexan-2-one	2302	30	3	3, 31°(c)
Methylhydrazine	1244	663	6.1+3+8	6.1, 7°(a)1.
Methylmorpholine	2535	338	3+8	3, 23°(b)
Methylpentadiene	2461	33	3	3, 3°(b)
2-Methylpentan-2-ol	2560	30	3	3, 31°(c)
Methylphenyldichlorosilane	2437	X80	8	8, 36°(b)
1-Methylpiperidine	2399	338	3+8	3, 23°(b)
Methyltetrahydrofuran	2536	33	3	3, 3°(b)
Methyltrichlorosilane	1250	X338	3+8	3, 21°(a)
alpha-Methylvaleraldehyde	2367	33	3	3, 3°(b)
Mixtures F1, F2 and F3	1078	20	2	2, 4°(a)
Mixtures of 1,3-butadiene and hydrocarbons	1010	239	3	2, 4°(c)
Mixtures of hydrocarbons (liquefied gases)(Mixtures A, A0, A1, B and C)	1965	23	3	2, 4°(b)
Mixtures of methyl bromide and chloropicrin (liquefied gas)	1581	26	6.1	2, 4°(ai)
Mixtures of methyl bromide and ethylene bromide	1647	236	3+6.1	2, 4°(bi)
Mixtures of methyl chloride and chloropicrin (liquefied gas)	1582	236	3+6.1	2, 4°(bi)

Name of substance (a)	Substance Identification No. (Lower part) (b)	Hazard Identification No. (Upper part) (c)	Label (d)	Class and item number (e)
Mixtures of methyl chloride and methylene chloride (liquefied gas)	1912	236	3+6.1	2, 4°(bt)
Mixtures of methylacetylene and propadiene with hydrocarbons	1060	239	3	2, 4°(c)
Molybdenum pentachloride	2508	80	8	8, 11°(c)
Morpholine	2054	30	3	3, 31°(c)
Motor fuel anti-knock mixture	1649	66	6.1	6.1, 31°(a)
Motor spirit	1203	33	3	3, 3°(b)
Naphthalene, crude or refined	1334	40	4.1	4.1, 6°(c)
Naphthalene, molten	2304	44	4.1	4.1, 5°
beta-Naphthylamine	1650	60	6.1	6.1, 12°(b)
alpha-Naphthylamine	2077	60	6.1	6.1, 12°(c)
Naphthylthiourea	1651	60	6.1	6.1, 21°(b)
Naphthylurea	1652	60	6.1	6.1, 12°(b)
Natural gas, compressed	1971	23	3	2, 2°(b)
Natural gas, deeply-refrigerated	1972	223	3	2, 8°(b)
Neon, compressed	1065	20	2	2, 1°(a)
Neon, deeply-refrigerated	1913	22	2	2, 7°(a)
Nickel carbonyl	1259	663	6.1+3	6.1, 3°
Nickel cyanide	1653	60	6.1	6.1, 41°(b)
Nickel nitrate	2725	50	5.1	5.1, 22°(c)
Nickel nitrite	2726	50	5.1	5.1, 23°(c)
Nicotine	1654	60	6.1	6.1, 90°(b)
Nicotine hydrochloride or nicotine hydrochloride solution	1656	60	6.1	6.1, 90°(b)
Nicotine salicylate	1657	60	6.1	6.1, 90°(b)
Nicotine sulphate, solid	1658	60	6.1	6.1, 90°(b)
Nicotine sulphate, solution	1658	60	6.1	6.1, 90°(b)
Nicotine tartrate	1659	60	6.1	6.1, 90°(b)
Nitrating acid mixture, spent, containing less than 50% nitric acid	1826	80	8	8, 3°(b)

Name of substance (a)	Substance Identification No. (Lower part) (b)	Hazard Identification No. (Upper part) (c)	Label (d)	Class and item number (e)
Nitrating acid mixture, spent, containing more than 50% nitric acid	1826	885	8+05	8, 3°(a)
Nitrating acid, mixture containing less than 50% nitric acid	1796	80	8	8, 3°(b)
Nitrating acid, mixture containing more than 50% nitric acid	1796	885	8+05	8, 3°(a)
Nitric acid containing less than 70% pure acid	2031	80	8	8, 2°(b)
Nitric acid containing more than 70% pure acid	2031	885	8	8, 2°(a)1.
Nitric acid, red fuming	2032	856	8+05+6.1	8, 2°(a)2.
3-Nitro-4-chlorobenzotrifluoride	2307	60	6.1	6.1, 12°(b)
Nitroanilines (o-, m-, p-)	1661	60	6.1	6.1, 12°(b)
Nitroanisole	2730	60	6.1	6.1, 12°(c)
Nitrobenzene	1662	60	6.1	6.1, 12°(b)
Nitrobenzenesulphonic acid	2305	80	8	8, 34°(b)
Nitrobenzotrifluorides	2306	60	6.1	6.1, 12°(b)
Nitrobromobenzene	2732	60	6.1	6.1, 12°(c)
Nitrocellulose solution, flammable	2059	33	3	3, 4°(a),(b)
Nitrocellulose solution, flammable	2059	30	3	3, 34°(c)
Nitrocresols (o-, m-, p-)	2446	60	6.1	6.1, 12°(c)
Nitroethane	2842	30	3	3, 31°(c)
Nitrogen dioxide (NO ₂)	1067	265	6.1+05	2, 3°(at)
Nitrogen, compressed	1066	20	2	2, 1°(a)
Nitrogen, deeply-refrigerated	1977	22	2	2, 7°(a)
Nitronaphthalene	2538	40	4.1	4.1, 6°(c)
Nitrophenols	1663	60	6.1	6.1, 12°(c)
Nitropropanes	2608	30	3	3, 31°(c)
p-Nitrosodimethylaniline	1369	40	4.2	4.2, 5°(b)
Nitrosylsulphuric acid	2308	80	8	8, 1°(b)
Nitrotoluenes (o-, m-, p-)	1664	60	6.1	6.1, 12°(b)
Nitrotoluidines (n.ono)	2660	60	6.1	6.1, 12°(c)

Name of substance (a)	Substance Identification No. (Lower part) (b)	Hazard Identification No. (Upper part) (c)	Label (d)	Class and item number (e)
Nitrous oxide (N ₂ O)	1070	25	2+05	2, 5°(a)
Nitrous oxide, deeply-refrigerated	2201	225	2+05	2, 7°(a)
Nitroxyls (o-, m-, p-)	1665	60	6.1	6.1, 12°(b)
Nonanes	1920	30	3	3, 31°(c)
Nonyltrichlorosilane	1799	X80	8	8, 36°(b)
2,5-Norbornadiene (Dicycloheptadiene), inhibited	2251	339	3	3, 3°(b)
Octadecyltrichlorosilane	1800	X80	8	8, 36°(b)
Octadiene	2309	33	3	3, 3°(b)
Octafluorocyclobutane (RC 318)	1976	20	2	2, 3°(a)
Octanes	1262	33	3	3, 3°(b)
Octyl aldehydes (ethyl hexaldehydes)	1191	30	3	3, 31°(c)
tert-Octyl mercaptan	3023	63	6.1+3	6.1, 20°(b)
Octyltrichlorosilane	1801	X80	8	8, 36°(b)
Oxygen, compressed	1072	20	2+05	2, 1°(a)
Oxygen, deeply-refrigerated	1073	225	2+05	2, 7°(a)
Paint	1263	30	3	3, 31°(c)
Paint	1263	33	3	3, 5°(a),(b),(c)
Paint or paint related material	3066	80	8	8, 66°(b),(c)
Paint related material	1263	30	3	3, 31°(c)
Paint related material	1263	33	3	3, 5°(a),(b),(c)
Paper, unsaturated oil treated	1379	40	4.2	4.2, 3°(c)
Paraformaldehyde	2213	40	4.1	4.1, 6°(c)
Paraldehyde	1264	30	3	3, 31°(c)
Pentaborane	1380	333	4.2+6.1	4.2, 19°(a)
Pentachloroethane	1669	60	6.1	6.1, 15°(b)
Pentachlorophenol	3155	60	6.1	6.1, 17°(b)
Pentafluoroethane (R 125)	3220	20	2	2, 5°(a)
Pentamethylheptane (Isododecane)	2286	30	3	3, 31°(c)
Pentan-2,4-dione	2310	30	3	3, 31°(c)

Name of substance (a)	Substance Identification No. (Lower part) (b)	Hazard Identification No. (Upper part) (c)	Label (d)	Class and item number (e)
Pentanes, liquid	1265	33	3	3, 1°(a)
Pentanes, liquid	1265	33	3	3, 2°(b)
1-Pentene (n-Amylene)	1108	33	3	3, 1°(a)
1-Pentol	2705	80	8	8, 66°(b)
Perchloric acid	1802	85	8	8, 4°(b)
Perchloric acid, with more than 50% but not more than 72% acid, by mass	1873	558	5.1+8	5.1, 3°(a)
Perchloromethyl mercaptan	1670	66	6.1	6.1, 17°(a)
Perfumery products	1266	33	3	3, 5°(a),(b),(c)
Perfumery products	1266	30	3	3, 31°(c)
Petroleum crude oil	1267	33	3	3, 1°(a), 2°(a),(b), 3°(b)
Petroleum crude oil	1267	30	3	3, 31°(c)
Phenacyl bromide	2645	60	6.1	6.1, 17°(b)
Phenetidines	2311	60	6.1	6.1, 12°(c)
Phenol solution	2821	60	6.1	6.1, 14°(b),(c)
Phenol, molten	2312	60	6.1	6.1, 24°(b)
Phenol, solid	1671	60	6.1	6.1, 14°(b)
Phenolates, liquid	2904	80	8	8, 62°(c)
Phenolates, solid	2905	80	8	8, 62°(c)
Phenolsulphonic acid, liquid	1803	80	8	8, 34°(b)
Phenyl chloroformate	2746	68	6.1+8	6.1, 27°(b)
Phenyl isocyanate	2487	63	6.1+3	6.1, 18°(b)
Phenyl mercaptan	2337	663	6.1+3	6.1, 20°(a)
Phenylacetonitrile, liquid	2470	60	6.1	6.1, 12°(c)
Phenylacetyl chloride	2577	80	8	8, 35°(b)1.
Phenylcarbylamine chloride	1672	66	6.1	6.1, 17°(a)
Phenylenediamines (o-, m-, p-)	1673	60	6.1	6.1, 12°(c)
Phenylhydrazine	2572	60	6.1	6.1, 12°(b)
Phenylmercuric acetate	1674	60	6.1	6.1, 33°(b)

Name of substance (a)	Substance Identification No. (Lower part) (b)	Hazard Identification No. (Upper part) (c)	Label (d)	Class and item number (e)
Phenylmercuric hydroxide	1894	60	6.1	6.1, 33°(b)
Phenylmercuric nitrate	1895	60	6.1	6.1, 33°(b)
Phenylphosphorus dichloride	2798	80	8	8, 35°(b)1.
Phenylphosphorus thiodichloride	2799	80	8	8, 35°(b)1.
Phenyltrichlorosilane	1804	X80	8	8, 36°(b)
Phosgene	1076	266	6.1 + 8	2, 3°(at)
9-Phosphabicyclononanes (cyclooctadiene phosphines)	2940	40	4.2	4.2, 5°(b)
Phosphoric acid	1805	80	8	8, 17°(c)
Phosphorous acid	2834	80	8	8, 16°(c)
Phosphorus oxychloride	1810	80	8	8, 12°(b)
Phosphorus, white or yellow, dry	1381	46	4.2 + 6.1	4.2, 11°(a)
Phosphorus heptasulphide	1339	40	4.1	4.1, 11°(b)
Phosphorus oxybromide	1939	80	8	8, 11°(b)
Phosphorus oxybromide, molten	2576	80	8	8, 15°
Phosphorus pentabromide	2691	80	8	8, 11°(b)
Phosphorus pentachloride	1806	80	8	8, 11°(b)
Phosphorus pentasulphide	1340	423	4.3	4.3, 20°(b)
Phosphorus pentoxide	1807	80	8	8, 16°(b)
Phosphorus sesquisulphide	1341	40	4.1	4.1, 11°(b)
Phosphorus tribromide	1808	80	8	8, 12°(b)
Phosphorus trichloride	1809	886	8 + 6.1	8, 12°(a)
Phosphorus trioxide	2578	80	8	8, 16°(c)
Phosphorus trisulphide	1343	40	4.1	4.1, 11°(b)
Phosphorus, amorphous	1338	40	4.1	4.1, 11°(c)
Phosphorus, white or yellow, molten	2447	446	4.2 + 6.1	4.2, 22°
Phthalic anhydride	2214	80	8	8, 31°(c)
Picolines	2313	30	3	3, 31°(c)
Pine oil	1272	30	3	3, 31°(c)
alpha-Pinene	2368	30	3	3, 31°(c)

Name of substance (a)	Substance Identification No. (Lower part) (b)	Hazard Identification No. (Upper part) (c)	Label (d)	Class and item number (e)
Piperazine	2579	80	8	8, 52°(c)
Piperidine	2401	338	3+8	3, 23°(b)
Polychlorinated biphenyls	2315	90	9	9, 2°(b)
Polyhalogenated biphenyls, liquid	3151	90	9	9, 2°(b)
Polyhalogenated biphenyls, solid	3152	90	9	9, 2°(b)
Polyhalogenated terphenyls, liquid	3151	90	9	9, 2°(b)
Polyhalogenated terphenyls, solid	3152	90	9	9, 2°(b)
Polymeric beads, expandable	2211	90	9	9, 4°(c)
Potassium	2257	X423	4.3	4.3, 11°(a)
Potassium arsenate	1677	60	6.1	6.1, 51°(b)
Potassium arsenite	1678	60	6.1	6.1, 51°(b)
Potassium bromate	1484	50	5.1	5.1, 16°(b)
Potassium chlorate	1485	50	5.1	5.1, 11°(b)
Potassium chlorate aqueous solution	2427	50	5.1	5.1, 11°(b)
Potassium cuprocyanide	1679	60	6.1	6.1, 41°(b)
Potassium dithionite	1929	40	4.2	4.2, 13°(b)
Potassium fluoride	1812	60	6.1	6.1, 63°(c)
Potassium fluoroacetate	2628	66	6.1	6.1, 17°(a)
Potassium fluorosilicate	2655	60	6.1	6.1, 64°(c)
Potassium hydrogen sulphate	2509	80	8	8, 13°(b)
Potassium hydrogendifluoride	1811	86	8+6.1	8, 9°(b)
Potassium hydroxide solution	1814	80	8	8, 42°(b),(c)
Potassium hydroxide, solid	1813	80	8	8, 41°(b)
Potassium metal alloys	1420	X423	4.3	4.3, 11°(a)
Potassium metavanadate	2864	60	6.1	6.1, 58°(b)
Potassium monoxide	2033	80	8	8, 41°(b)
Potassium nitrate	1486	50	5.1	5.1, 22°(c)
Potassium nitrate and sodium nitrite mixtures	1487	50	5.1	5.1, 24°(b)
Potassium nitrite	1488	50	5.1	5.1, 23°(b)

Name of substance (a)	Substance Identification No. (Lower part) (b)	Hazard Identification No. (Upper part) (c)	Label (d)	Class and item number (e)
Potassium perchlorate	1489	50	5.1	5.1, 13°(b)
Potassium permanganate	1490	50	5.1	5.1, 17°(b)
Potassium persulphate	1492	50	5.1	5.1, 18°(c)
Potassium sodium alloys	1422	X423	4.3	4.3, 11°(a)
Potassium sulphide, anhydrous	1382	40	4.2	4.2, 13°(b)
Potassium sulphide, hydrated	1847	80	8	8, 45°(b)1.
Potassium sulphide, with less than 30% water of crystallisation	1382	40	4.2	4.2, 13°(b)
Printing ink	1210	33	3	3, 5°(a),(b),(c)
Printing ink	1210	30	3	3, 31°(c)
Propane, technically-pure	1978	23	3	2, 3°(b)
Propanethiols (propyl mercaptans)	2402	33	3	3, 3°(b)
n-Propanol	1274	33	3	3, 3°(b)
n-Propanol	1274	30	3	3, 31°(c)
Propionaldehyde	1275	33	3	3, 3°(b)
Propionic acid	1848	80	8	8, 32°(c)
Propionic anhydride	2496	80	8	8, 32°(c)
Propionitrile	2404	336	3+6.1	3, 11°(b)
Propionyl chloride	1815	338	3+8	3, 25°(b)
n-Propyl acetate	1276	33	3	3, 3°(b)
n-Propyl chloroformate	2740	668	6.1+8+3	6.1, 28°(a)
Propyl formates	1281	33	3	3, 3°(b)
n-Propyl isocyanate	2482	663	6.1+3	6.1, 6°(a)
Propylamine	1277	338	3+8	3, 22°(b)
n-Propylbenzene	2364	30	3	3, 31°(c)
Propylene	1077	23	3	2, 3°(b)
Propylene chlorohydrin	2611	63	6.1+3	6.1, 16°(b)
Propylene oxide, inhibited	1280	339	3	3, 2°(a)
Propylene tetramer	2850	30	3	3, 31°(c)
1,2-Propylenediamine	2258	83	8+3	8, 54°(b)

Name of substance (a)	Substance Identification No. (Lower part) (b)	Hazard Identification No. (Upper part) (c)	Label (d)	Class and item number (e)
Propyleneimine, inhibited	1921	336	3+6.1	3, 12°
Propyltrichlorosilane	1816	X83	8+3	8, 37°(b)
Pyridine	1282	33	3	3, 3°(b)
Pyrosulphuryl chloride	1817	80	8	8, 12°(b)
Pyrrolidine	1922	338	3+8	3, 23°(b)
Quinoline	2656	60	6.1	6.1, 12°(c)
Resin solution, flammable	1866	33	3	3, 5°(a),(b),(c)
Resin solution, flammable	1866	30	3	3, 31°(c)
Resorcinol	2876	60	6.1	6.1, 14°(c)
Rosin oil	1286	30	3	3, 31°(c)
Rosin oil	1286	33	3	3, 5°(a),(b),(c)
Rubber scrap or shoddy	1345	40	4.1	4.1, 1°(b)
Rubber solution	1287	33	3	3, 5°(a),(b),(c)
Rubber solution	1287	30	3	3, 31°(c)
Rubidium	1423	X423	4.3	4.3, 11°(a)
Rubidium hydroxide	2678	80	8	8, 41°(b)
Rubidium hydroxide solution	2677	80	8	8, 42°(b),(c)
Seed cake	1386	40	4.2	4.2, 2°(c)
Seed cake	2217	40	4.2	4.2, 2°(c)
Selenium disulphide	2657	60	6.1	6.1, 55°(b)
Selenium oxychloride	2879	886	8+6.1	8, 12°(a)
Selenium powder	2658	60	6.1	6.1, 55°(c)
Shale oil	1288	30	3	3, 31°(c)
Shale oil	1288	33	3	3, 3°(b)
Silicon powder, amorphous	1346	40	4.1	4.1, 13°(c)
Silicon tetrachloride	1818	80	8	8, 12°(b)
Silver arsenite	1683	60	6.1	6.1, 51°(b)
Silver cyanide	1684	60	6.1	6.1, 41°(b)
Silver nitrate	1493	50	5.1	5.1, 22°(b)
Sludge acid	1906	80	8	8, 1°(b)

Name of substance (a)	Substance Identification No. (Lower part) (b)	Hazard Identification No. (Upper part) (c)	Label (d)	Class and item number (e)
Soda lime	1907	80	8	8, 41°(c)
Sodium	1428	X423	4.3	4.3, 11°(a)
Sodium aluminate, solution	1819	80	8	8, 42°(b),(c)
Sodium aluminium hydride	2835	423	4.3	4.3, 16°(b)
Sodium ammonium vanadate	2863	60	6.1	6.1, 58°(b)
Sodium arsanilate	2473	60	6.1	6.1, 34°(c)
Sodium arsenate	1685	60	6.1	6.1, 51°(b)
Sodium arsenite, aqueous solution	1686	60	6.1	6.1, 51°(b),(c)
Sodium arsenite, solid	2027	60	6.1	6.1, 51°(b)
Sodium bromate	1494	50	5.1	5.1, 16°(b)
Sodium cacodylate	1688	60	6.1	6.1, 51°(b)
Sodium chlorate	1495	50	5.1	5.1, 11°(b)
Sodium chlorate, aqueous solution	2428	50	5.1	5.1, 11°(b)
Sodium chlorite	1496	50	5.1	5.1, 14°(b)
Sodium chloroacetate	2659	60	6.1	6.1, 17°(c)
Sodium cuprocyanide solution	2317	66	6.1	6.1, 41°(a)
Sodium dithionite (Sodium hydrosulphite)	1384	40	4.2	4.2, 13°(b)
Sodium fluoride	1690	60	6.1	6.1, 63°(c)
Sodium fluoroacetate	2629	66	6.1	6.1, 17°(a)
Sodium fluorosilicate	2674	60	6.1	6.1, 64°(c)
Sodium hydrogendifluoride	2439	80	8	8, 9°(b)
Sodium hydrosulphide hydrated	2318	40	4.2	4.2, 13°(b)
Sodium hydrosulphide	2949	80	8	8, 45°(b)1.
Sodium hydroxide solution	1824	80	8	8, 42°(b),(c)
Sodium hydroxide, solid	1823	80	8	8, 41°(b)
Sodium methylate	1431	48	4.2 + 8	4.2, 15°(b)
Sodium methylate solution	1289	338	3 + 8	3, 24°(b)
Sodium methylate solution	1289	38	3 + 8	3, 33°(c)
Sodium monoxide	1825	80	8	8, 41°(b)

Name of substance (a)	Substance Identification No. (Lower part) (b)	Hazard Identification No. (Upper part) (c)	Label (d)	Class and item number (e)
Sodium nitrate	1498	50	5.1	5.1, 22°(c)
Sodium nitrate and potassium nitrate mixture	1499	50	5.1	5.1, 22°(c)
Sodium nitrite	1500	50	5.1	5.1, 23°(c)
Sodium pentachlorophenate	2567	60	6.1	6.1, 17°(b)
Sodium percarbonates	2467	50	5.1	5.1, 19°(c)
Sodium perchlorate	1502	50	5.1	5.1, 13°(b)
Sodium permanganate	1503	50	5.1	5.1, 17°(b)
Sodium peroxoborate, anhydrous	3247	50	5.1	5.1, 27°(b)
Sodium persulphate	1505	50	5.1	5.1, 18°(c)
Sodium sulphide, anhydrous	1385	40	4.2	4.2, 13°(b)
Sodium sulphide, hydrated	1849	80	8	8, 45°(b)1.
Sodium sulphide, with less than 30% water of crystallisation	1385	40	4.2	4.2, 13°(b)
Stannic chloride pentahydrate	2440	80	8	8, 11°(c)
Stannic chloride, anhydrous	1827	80	8	8, 12°(b)
Strontium arsenite	1691	60	6.1	6.1, 51°(b)
Strontium chlorate	1506	50	5.1	5.1, 11°(b)
Strontium nitrate	1507	50	5.1	5.1, 22°(c)
Strontium perchlorate	1508	50	5.1	5.1, 13°(b)
Strontium peroxide	1509	50	5.1	5.1, 25°(b)
Strychnine or strychnine, salts	1692	66	6.1	6.1, 90°(a)
Styrene monomer, inhibited (Vinylbenzene)	2055	39	3	3, 31°(c)
Sulphamic acid	2967	80	8	8, 16°(c)
Sulphur	1350	40	4.1	4.1, 11°(c)
Sulphur chlorides	1828	X88	8	8, 12°(a)
Sulphur dioxide	1079	26	6.1	2, 3°(at)
Sulphur hexafluoride	1080	20	2	2, 5°(a)
Sulphur trioxide, inhibited	1829	X88	8	8, 1°(a)
Sulphur, molten	2448	44	4.1	4.1, 15°

Name of substance (a)	Substance Identification No. (Lower part) (b)	Hazard Identification No. (Upper part) (c)	Label (d)	Class and item number (e)
Sulphuric acid, containing more than 51% acid	1830	80	8	8, 1°(b)
Sulphuric acid, fuming	1831	X886	8+6.1	8, 1°(a)
Sulphuric acid, spent	1832	80	8	8, 1°(b)
Sulphuric acid, with more than 51% acid	2796	80	8	8, 1°(b)
Sulphurous acid	1833	80	8	8, 1°(b)
Sulphuryl chloride	1834	X88	8	8, 12°(a)
Synthesis gas	2600	236	3+6.1	2, 2°(bt)
Tars, liquid	1999	30	3	3, 31°(c)
Tars, liquid	1999	33	3	3, 5°(b),(c)
Terpinolene	2541	30	3	3, 31°(c)
Tetrabromoethane	2504	60	6.1	6.1, 15°(c)
1,1,2,2-Tetrachloroethane	1702	60	6.1	6.1, 15°(b)
Tetrachloroethylene	1897	60	6.1	6.1, 15°(c)
Tetraethyl dithiopyrophosphate	1704	60	6.1	6.1, 23°(b)
Tetraethyl silicate	1292	30	3	3, 31°(c)
Tetraethylenepentamine	2320	80	8	8, 53°(c)
1,1,1,2-Tetrafluoroethane (R 134a)	3159	20	2	2, 3°(a)
Tetrafluoromethane (R 14)	1982	20	2	2, 1°(a)
1,2,3,6-Tetrahydrobenzaldehyde	2498	30	3	3, 31°(c)
Tetrahydrofuran	2056	33	3	3, 3°(b)
Tetrahydrofurfurylamine	2943	30	3	3, 31°(c)
Tetrahydrophthalic anhydrides	2698	80	8	8, 31°(c)
1,2,3,6-Tetrahydropyridine	2410	33	3	3, 3°(b)
Tetrahydrothiophene (thiolanne)	2412	33	3	3, 3°(b)
Tetramethylammonium hydroxide	1835	80	8	8, 51°(b)
Tetramethylsilane	2749	33	3	3, 1°(a)
Tetranitromethane	1510	559	5.1+6.1	5.1, 2°(a)
Tetrapropyl orthotitanate	2413	30	3	3, 31°(c)

Name of substance (a)	Substance Identification No. (Lower part) (b)	Hazard Identification No. (Upper part) (c)	Label (d)	Class and item number (e)
Thallium chlorate	2573	56	5.1+6.1	5.1, 29°(b)
Thallium nitrate	2727	65	6.1+05	6.1, 68°(b)
Thioacetic acid	2436	33	3	3, 3°(b)
Thioglycol	2966	60	6.1	6.1, 21°(b)
Thioglycolic acid	1940	80	8	8, 32°(b)1.
Thiolactic acid	2936	60	6.1	6.1, 21°(b)
Thionyl chloride	1836	X88	8	8, 12°(a)
4-Thiapentanal	2785	60	6.1	6.1, 21°(c)
Thiophene	2414	33	3	3, 3°(b)
Thiophosgene	2474	60	6.1	6.1, 21°(b)
Thiophosphoryl chloride	1837	80	8	8, 12°(b)
Tinctures, medicinal	1293	30	3	3, 31°(c)
Tinctures, medicinal	1293	33	3	3, 3°(b)
Titanium disulphide	3174	40	4.2	4.2, 13°(c)
Titanium hydride	1871	40	4.1	4.1, 14°(b)
Titanium powder, dry	2546	40	4.2	4.2, 12°(b),(c)
Titanium powder, wetted	1352	40	4.1	4.1, 13°(b)
Titanium sponge, powder or granules	2878	40	4.1	4.1, 13°(c)
Titanium tetrachloride	1838	80	8	8, 12°(b)
Titanium trichloride mixture	2869	80	8	8, 11°(b),(c)
Toluene	1294	33	3	3, 3°(b)
Toluene diisocyanate	2078	60	6.1	6.1, 19°(b)
Toluidines	1708	60	6.1	6.1, 12°(b)
2,4-Toluylenediamine	1709	60	6.1	6.1, 12°(c)
Town gas	2600	236	3+6.1	2, 2°(bt)
Triallyl borate	2609	60	6.1	6.1, 14°(c)
Triallylamine	2610	38	3+8	3, 33°(c)
Tributylamine	2542	80	8	8, 53°(c)
Trichloroacetic acid	1839	80	8	8, 31°(b)
Trichloroacetic acid solution	2564	80	8	8, 32°(c)

Name of substance (a)	Substance Identification No. (Lower part) (b)	Hazard Identification No. (Upper part) (c)	Label (d)	Class and item number (e)
Trichloroacetic acid solution	2564	80	8	8, 32°(b)1.
Trichloroacetyl chloride	2442	X80	8	8, 35°(b)1.
Trichlorobenzenes, liquid	2321	60	6.1	6.1, 15°(c)
Trichlorobutene	2322	60	6.1	6.1, 15°(b)
1,1,1-Trichloroethane	2831	60	6.1	6.1, 15°(c)
Trichloroethylene	1710	60	6.1	6.1, 15°(c)
Trichloroisocyanuric acid, dry	2468	50	5.1	5.1, 26°(b)
Trichlorosilane	1295	X338	4.3+3+8	4.3, 1°(a)
Tricresyl phosphate	2574	60	6.1	6.1, 23°(b)
Triethyl phosphite	2323	30	3	3, 31°(c)
Triethylamine	1296	338	3+8	3, 22°(b)
Triethylenetetramine	2259	80	8	8, 53°(h)
Trifluoroacetic acid	2699	88	8	8, 32°(a)
Trifluorochloroethylene (R 1113)	1082	236	3+6.1	2, 3°(ct)
1,1,1-Trifluoroethane	2035	23	3	2, 3°(b)
Trifluoromethane (R 23)	1984	20	2	2, 5°(a)
2-Trifluoromethylaniline	2942	60	6.1	6.1, 12°(c)
3-Trifluoromethylaniline	2948	60	6.1	6.1, 17°(b)
Tris-(1-aziridinyl) phosphine oxide solution	2501	60	6.1	6.1, 23°(b),(c)
Triisobutylene (Isobutylene trimer)	2324	30	3	3, 31°(c)
Triisocyanatoisocyanurate of isophoronediiisocyanate, solution	2906	30	3	3, 31°(c)
Triisopropyl borate	2616	30	3	3, 31°(c)
Triisopropyl borate	2616	33	3	3, 3°(b)
Trimethyl borate	2416	33	3	3, 3°(b)
Trimethyl phosphite	2329	30	3	3, 31°(c)
Trimethylacetyl chloride	2438	663	6.1+3+8	6.1, 10°(a)
Trimethylamine, anhydrous	1083	236	3+6.1	2, 3°(bt)
Trimethylamine, aqueous solution	1297	338	3+8	3, 22°(a),(b)
Trimethylamine, aqueous solution	1297	38	3+8	3, 33°(c)

Name of substance (a)	Substance Identification No. (Lower part) (b)	Hazard Identification No. (Upper part) (c)	Label (d)	Class and item number (e)
1,3,5-Trimethylbenzene	2325	30	3	3, 31°(c)
Trimethylchlorosilane	1298	X338	3+8	3, 21°(b)
Trimethylcyclohexylamine	2326	80	8	8, 53°(c)
Trimethylhexamethylene diisocyanate	2328	60	6.1	6.1, 19°(c)
Trimethylhexamethylenediamine	2327	80	8	8, 53°(c)
Tripropylamine	2260	38	3+8	3, 33°(c)
Tripropylene	2057	33	3	3, 3°(b)
Tripropylene	2057	30	3	3, 31°(c)
Turpentine	1299	30	3	3, 31°(c)
Turpentine substitute	1300	33	3	3, 3°(b)
Turpentine substitute	1300	30	3	3, 31°(c)
Undecane	2330	30	3	3, 31°(c)
Uranyl nitrate hexahydrate solution	2980	78	7A,7B or 7C+8	7, Sch 5,6 or 13
Urea hydrogen peroxide	1511	58	5.1+8	5.1, 31°(c)
Valeraldehyde	2058	33	3	3, 3°(b)
Valeryl chloride	2502	83	8+3	8, 35°(b)2.
Vanadium oxytrichloride	2443	80	8	8, 12°(b)
Vanadium pentoxide	2862	60	6.1	6.1, 58°(b)
Vanadium tetrachloride	2444	88	8	8, 12°(a)
Vanadium trichloride	2475	80	8	8, 11°(c)
Vanadyl sulphate	2931	60	6.1	6.1, 58°(b)
Vinyl acetate, inhibited	1301	339	3	3, 3°(b)
Vinyl bromide	1085	236	3+6.1	2, 3°(ct)
Vinyl butyrate, inhibited	2838	339	3	3, 3°(b)
Vinyl chloride	1086	239	3	2, 3°(c)
Vinyl chloroacetate	2589	63	6.1+3	6.1, 16°(b)
Vinyl ethyl ether, inhibited	1302	339	3	3, 2°(a)
Vinyl fluoride	1860	239	3	2, 5°(c)
Vinyl isobutyl ether, inhibited	1304	339	3	3, 3°(b)

Name of substance (a)	Substance Identification No. (Lower part) (b)	Hazard Identification No. (Upper part) (c)	Label (d)	Class and item number (e)
Vinylidene chloride, inhibited	1303	339	3	3, 1°(a)
Vinyltoluene, inhibited (o-,m-,p-)	2618	39	3	3, 31°(c)
Vinylpyridines, inhibited	3073	639	6.1 + 3	6.1, 11°(b)
Vinyltrichlorosilane, inhibited	1305	X338	3 + 8	3, 21°(a)
Water gas	2600	236	3 + 6.1	2, 2°(bt)
White asbestos (Actinolite, . Anthophyllite, Chrysotile or Tremolite)	2590	90	9	9, 1°(c)
Wood preservatives, liquid	1306	33	3	3, 5°(b),(c)
Wood preservatives, liquid	1306	30	3	3, 31°(c)
Xenon	2036	20	2	2, 5°(a)
Xenon, deeply-refrigerated	2591	22	2	2, 7°(a)
Xylenes	1307	30	3	3, 31°(c)
Xylenes	1307	33	3	3, 3°(b)
Xylenols	2261	60	6.1	6.1, 14°(b)
Xylidines	1711	60	6.1	6.1, 12°(b)
Xylyl bromide	1701	60	6.1	6.1, 15°(b)
Zinc ammonium nitrite	1512	50	5.1	5.1, 23°(b)
Zinc arsenate	1712	60	6.1	6.1, 51°(b)
Zinc arsenate and zinc arsenite mixture	1712	60	6.1	6.1, 51°(b)
Zinc arsenite	1712	60	6.1	6.1, 51°(b)
Zinc ashes	1435	423	4.3	4.3, 13°(c)
Zinc bromate	2469	50	5.1	5.1, 16°(c)
Zinc chlorate	1513	50	5.1	5.1, 11°(b)
Zinc chloride solution	1840	80	8	8, 5°(c)
Zinc chloride, anhydrous	2331	80	8	8, 11°(c)
Zinc cyanide	1713	66	6.1	6.1, 41°(a)
Zinc dust	1436	423	4.3 + 4.2	4.3, 14°(b),(c)
Zinc fluorosilicate	2855	60	6.1	6.1, 64°(c)
Zinc nitrate	1514	50	5.1	5.1, 22°(b)

Name of substance (a)	Substance Identification No. (Lower part) (b)	Hazard Identification No. (Upper part) (c)	Label (d)	Class and item number (e)
Zinc permanganate	1515	50	5.1	5.1, 17°(b)
Zinc peroxide	1516	50	5.1	5.1, 25°(b)
Zinc powder	1436	423	4.3 + 4.2	4.3, 14°(b),(c)
Zinc resinate	2714	40	4.1	4.1, 12°(c)
Zirconium hydride	1437	40	4.1	4.1, 14°(b)
Zirconium nitrate	2728	50	5.1	5.1, 22°(c)
Zirconium powder, dry	2008	40	4.2	4.2, 12°(b),(c)
Zirconium powder, wetted	1358	40	4.1	4.1, 13°(b)
Zirconium scrap	1932	40	4.2	4.2, 12°(c)
Zirconium suspended in a flammable liquid	1308	33	3	3, 1°(a), 2°(a),(b), 3°(b)
Zirconium suspended in a flammable liquid	1308	30	3	3, 31°(c)
Zirconium tetrachloride	2503	80	8	8, 11°(c)
Zirconium, dry	2858	40	4.1	4.1, 13°(c)

Table 2

List of collective headings or n.o.s. entries which are not listed by name, or which do not fall under a collective heading in Table 1.

This table includes two types of collective headings or n.o.s. entries:

- specific collective headings or n.o.s. entries applicable to groups of chemical compounds of the same type;
- general collective headings or n.o.s. entries applicable to groups of substances which present similar primary and secondary hazards.

Substances may only be classified under a general collective heading or n.o.s. entry if they cannot be classified under a specific collective heading or n.o.s. entry.

NOTE: This table applies only to substances not included in Table 1.

Group of substances (a)	Substance Identification No. (Lower part) (b)	Hazard Identification No. (Upper part) (c)	Label (d)	Class and item number (e)
Class 3: Flammable liquids				
Specific n.o.s. entries or specific collective headings				
Petroleum distillates, n.o.s.	1268 1268 1268 1268 1268	33 33 33 33 30	3 3 3 3 3	3, 1°(a) 3, 2°(a) 3, 2°(b) 3, 3°(b) 3, 31°(c)
Petroleum products, n.o.s.	1268 1268 1268 1268 1268	33 33 33 33 30	3 3 3 3 3	3, 1°(a) 3, 2°(a) 3, 2°(b) 3, 3°(b) 3, 31°(c)
Hydrocarbons, liquid, n.o.s.	3295 3295 3295 3295 3295	33 33 33 33 30	3 3 3 3 3	3, 1°(a) 3, 2°(a) 3, 2°(b) 3, 3°(b) 3, 31°(c)
Aldehydes, flammable, n.o.s.	1989 1989 1989	33 33 30	3 3 3	3, 2°(b) 3, 3°(b) 3, 31°(c)
Alcohols, flammable, n.o.s.	1987 1987 1987	33 33 30	3 3 3	3, 2°(b) 3, 3°(b) 3, 31°(c)

Group of substances (a)	Substance Identification No. (Lower part) (b)	Hazard Identification No. (Upper part) (c)	Label (d)	Class and item number (e)
Ketones, n.o.s.	1224	33	3	3, 2°(b)
	1224	33	3	3, 3°(b)
	1224	30	3	3, 31°(c)
Ethers, n.o.s.	3271	33	3	3, 3°(b)
	3271	30	3	3, 31°(c)
Esters, n.o.s.	3272	33	3	3, 3°(b)
	3272	30	3	3, 31°(c)
Nitriles, flammable, toxic, n.o.s.	3273	336	3+6.1	3, 11°(a),(b)
Isocyanates or isocyanate solution, flammable, toxic, n.o.s.	2478	336	3+6.1	3, 14°(b)
	2478	36	3+6.1	3, 32°(c)
Alcohols, flammable, toxic, n.o.s.	1986	336	3+6.1	3, 17°(a),(b)
	1986	36	3+6.1	3, 32°(c)
Aldehydes, flammable, toxic, n.o.s.	1988	336	3+6.1	3, 17°(a),(b)
	1988	36	3+6.1	3, 32°(c)
Mercaptans or mercaptan mixture, liquid, flammable, toxic, n.o.s.	1228	336	3+6.1	3, 18°(b)
	1228	36	3+6.1	3, 32°(c)
Medicine, liquid, flammable, toxic, n.o.s.	3248	336	3+6.1	3, 19°(b)
	3248	36	3+6.1	3, 32°(c)
Chlorosilanes, flammable, corrosive, n.o.s.	2985	338	3+8	3, 21°(b)
Amines or polyamines, flammable, corrosive, n.o.s.	2733	338	3+8	3, 22°(a),(b)
	2733	38	3+8	3, 33°(c)
Alcoholates solution, n.o.s.	3274	338	3+8	3, 24°(h)
Terpene hydrocarbons, n.o.s.	2319	30	3	3, 31°(c)
Pesticides				
Organophosphorous pesticide, liquid, flammable, toxic	2784	336	3+6.1	3, 41°(a),(b)
Organochlorine pesticide, liquid, flammable, toxic	2762	336	3+6.1	3, 42°(a),(b)
Phenoxy pesticide, liquid, flammable, toxic	2766	336	3+6.1	3, 43°(a),(b)
Carbamate pesticide, liquid, flammable, toxic	2758	336	3+6.1	3, 44°(a),(b)
Mercury based pesticide, liquid, flammable, toxic	2778	336	3+6.1	3, 45°(a),(b)

Group of substances (a)	Substance Identification No. (Lower part) (b)	Hazard Identification No. (Upper part) (c)	Label (d)	Class and item number (e)
Organotin pesticide, liquid, flammable, toxic	2787	336	3+6.1	3, 46°(a),(b)
Coumarin derivative pesticide, liquid, flammable, toxic	3024	336	3+6.1	3, 47°(a),(b)
Bipyridilium pesticide, liquid, flammable, toxic	2782	336	3+6.1	3, 48°(a),(b)
Arsenical pesticide, liquid, flammable, toxic	2760	336	3+6.1	3, 49°(a),(b)
Copper based pesticide, liquid, flammable, toxic	2776	336	3+6.1	3, 50°(a),(b)
Substituted nitrophenol pesticide, liquid, flammable, toxic	2780	336	3+6.1	3, 51°(a),(b)
Triazine pesticide, liquid, flammable, toxic	2764	336	3+6.1	3, 52°(a),(b)
Benzoic derivative pesticide, liquid, flammable, toxic	2770	336	3+6.1	3, 53°(a),(b)
Phthalimide derivative pesticide, liquid, flammable, toxic	2774	336	3+6.1	3, 54°(a),(b)
Phenyl urea pesticide, liquid, flammable, toxic	2768	336	3+6.1	3, 55°(a),(b)
Dithiocarbamate pesticide, liquid, flammable, toxic	2772	336	3+6.1	3, 56°(a),(b)
Pesticide, liquid, flammable, toxic, n.o.s.	3021	336	3+6.1	3, 57°(a),(b)
General n.o.s. entries				
Flammable liquid, n.o.s.	1993	33	3	3, 1°(a)
	1993	33	3	3, 2°(a)
	1993	33	3	3, 2°(b)
	1993	33	3	3, 3°(b)
	1993	33	3	3, 5°(c)
	1993	30	3	3, 31°(c)
Flammable liquid, toxic, n.o.s.	1992	336	3+6.1	3, 19°(a),(b)
	1992	36	3+6.1	3, 32°(c)
Flammable liquid, corrosive, n.o.s.	2924	338	3+8	3, 26°(a),(b)
	2924	38	3+8	3, 33°(c)
Flammable liquid, toxic, corrosive, n.o.s.	3286	368	3+6.1+8	3, 27°(a),(b)

Group of substances (a)	Substance Identification No. (Lower part) (b)	Hazard Identification No. (Upper part) (c)	Label (d)	Class and item number (e)
Elevated temperature liquid, flammable, n.o.s.	3256	30	3	3, 61°(c)
Class 4.1: Flammable solids				
Specific n.o.s. entries				
Metal hydrides, flammable, n.o.s.	3182	40	4.1	4.1, 14°(b),(c)
General n.o.s. entries				
Solids containing flammable liquid, n.o.s.	3175	40	4.1	4.1, 4°(c)
Flammable solid, organic, molten, n.o.s.	3176	44	4.1	4.1, 5°
Flammable solid, organic, n.o.s.	1325	40	4.1	4.1, 6°(b),(c)
Flammable solid, toxic, organic, n.o.s.	2926	46	4.1+6.1	4.1, 7°(b),(c)
Flammable solid, corrosive, organic, n.o.s.	2925	48	4.1+8	4.1, 8°(b),(c)
Flammable solid, inorganic, n.o.s.	3178	40	4.1	4.1, 11°(b),(c)
Metal salts of organic compounds, flammable, n.o.s.	3181	40	4.1	4.1, 12°(b),(c)
Metal powder, flammable, n.o.s.	3089	40	4.1	4.1, 13°(b),(c)
Flammable solid, toxic, inorganic, n.o.s.	3179	46	4.1+6.1	4.1, 16°(b),(c)
Flammable solid, corrosive, inorganic, n.o.s.	3180	48	4.1+8	4.1, 17°(b),(c)
Class 4.2: Substances liable to spontaneous combustion				
Specific n.o.s. entries				
Fibres, animal, vegetable or synthetic n.o.s.	1373	40	4.2	4.2, 3°(c)
Alkaline earth metal alcoholates, n.o.s.	3205	40	4.2	4.2, 14°(b),(c)
Alkali metal alcoholates, n.o.s.	3206	48	4.2+8	4.2, 15°(b),(c)

Group of substances (a)	Substance Identification No. (Lower part) (b)	Hazard Identification No. (Upper part) (c)	Label (d)	Class and item number (e)
Metal alkyls, n.o.s. or metal aryls, n.o.s.	2003	X333	4.2+4.3	4.2, 31°(a)
Metal alkyl halides, n.o.s. or metal aryl halides, n.o.s.	3049	X333	4.2+4.3	4.2, 32°(a)
Metal alkyl hydrides, n.o.s. or metal aryl hydrides, n.o.s.	3050	X333	4.2+4.3	4.2, 32°(a)
General n.o.s. entries				
Self-heating solid, organic, n.o.s.	3088	40	4.2	4.2, 5°(b),(c)
Pyrophoric liquid, organic, n.o.s.	2845	333	4.2	4.2, 6°(a)
Self-heating liquid, organic, n.o.s.	3183	30	4.2	4.2, 6°(b),(c)
Self-heating solid, toxic, organic, n.o.s.	3128	46	4.2+6.1	4.2, 7°(b),(c)
Self-heating liquid, toxic, organic, n.o.s.	3184	36	4.2+6.1	4.2, 8°(b),(c)
Self-heating solid, corrosive, organic, n.o.s.	3126	48	4.2+8	4.2, 9°(b),(c)
Self-heating liquid, corrosive, organic, n.o.s.	3185	38	4.2+8	4.2, 10°(b),(c)
Self-heating metal powder, n.o.s.	3189	40	4.2	4.2, 12°(b),(c)
Self-heating solid, inorganic, n.o.s.	3190	40	4.2	4.2, 16°(b),(c)
Pyrophoric liquid, inorganic, n.o.s.	3194	333	4.2	4.2, 17°(a)
Self-heating liquid, inorganic, n.o.s.	3186	30	4.2	4.2, 17°(b),(c)
Self-heating solid, toxic, inorganic, n.o.s.	3191	46	4.2+6.1	4.2, 18°(b),(c)
Self-heating liquid, toxic, inorganic, n.o.s.	3187	36	4.2+6.1	4.2, 19°(b),(c)
Self-heating solid, corrosive, inorganic, n.o.s.	3192	48	4.2+8	4.2, 20°(b),(c)
Self-heating liquid, corrosive, inorganic, n.o.s.	3188	38	4.2+8	4.2, 21°(b),(c)
Pyrophoric organometallic compound, n.o.s.	3203	X333	4.2+4.3	4.2, 33°(a)

Group of substances (a)	Substance Identification No. (Lower part) (b)	Hazard Identification No. (Upper part) (c)	Label (d)	Class and item number (e)
Class 4.3: Substances, which, in contact with water, emit flammable gases				
Specific n.o.s. entries				
Chorosilanes, water-reactive, flammable, corrosive, n.o.s.	2988	X338	4.3+3+8	4.3, 1°(a)
Alkali metal alloy, liquid, n.o.s.	1421	X423	4.3	4.3, 11°(a)
Alkaline earth metal alloy, n.o.s.	1393	423	4.3	4.3, 11°(b)
Metal hydrides, water-reactive, n.o.s.	1409	423	4.3	4.3, 16°(b)
General n.o.s. entries				
Organometallic compound or solution or dispersion, water-reactive, flammable, n.o.s.	3207 3207	X323 323	4.3+3 4.3+3	4.3, 3°(a) 4.3, 3°(b),(c)
Metallic substance, water-reactive, n.o.s.	3208	423	4.3	4.3, 13°(b),(c)
Metallic substance, water-reactive, self-heating, n.o.s.	3209	423	4.3+4.2	4.3, 14°(b),(c)
Water-reactive solid, n.o.s.	2813	423	4.3	4.3, 20°(b),(c)
Water reactive liquid, n.o.s.	3148 3148	X323 323	4.3 4.3	4.3, 21°(a) 4.3, 21°(b),(c)
Water-reactive solid, toxic, n.o.s.	3134	462	4.3+6.1	4.3, 22°(b),(c)
Water-reactive liquid, toxic, n.o.s.	3130 3130	X362 362	4.3+6.1 4.3+6.1	4.3, 23°(a) 4.3, 23°(b),(c)
Water-reactive solid, corrosive, n.o.s.	3131	482	4.3+8	4.3, 24°(b),(c)
Water-reactive liquid, corrosive, n.o.s.	3129 3129	X382 382	4.3+8 4.3+8	4.3, 25°(a) 4.3, 25°(b),(c)
Class 5.1: Oxidizing substances				
Specific n.o.s. entries				
Chlorates, inorganic, n.o.s.	1461	50	5.1	5.1, 11°(b)
Chlorates, inorganic, aqueous solution n.o.s.	3210	50	5.1	5.1, 11°(b)
Perchlorates, inorganic, n.o.s.	1481	50	5.1	5.1, 13°(b)

Group of substances (a)	Substance Identification No. (Lower part) (b)	Hazard Identification No. (Upper part) (c)	Label (d)	Class and item number (e)
Perchlorates, inorganic, aqueous solution, n.o.s.	3211	50	5.1	5.1, 13°(b)
Chlorites, inorganic, n.o.s.	1462	50	5.1	5.1, 14°(b)
Hypochlorites, inorganic, n.o.s.	3212	50	5.1	5.1, 15°(b)
Bromates, inorganic, n.o.s.	1450	50	5.1	5.1, 16°(b)
Bromates, inorganic, aqueous solution n.o.s.	3213	50	5.1	5.1, 16°(b),(c)
Permanganates, inorganic, n.o.s.	1482	50	5.1	5.1, 17°(b)
Permanganates, inorganic, aqueous solution, n.o.s.	3214	50	5.1	5.1, 17°(b)
Persulphates, inorganic, n.o.s.	3215	50	5.1	5.1, 18°(c)
Persulphates, inorganic, aqueous solution, n.o.s.	3216	50	5.1	5.1, 18°(c)
Percarbonates, inorganic, n.o.s.	3217	50	5.1	5.1, 19°(c)
Nitrates, inorganic, n.o.s.	1477	50	5.1	5.1, 22°(b),(c)
Nitrates, inorganic, aqueous solution, n.o.s.	3218	50	5.1	5.1, 22°(b),(c)
Nitrites, inorganic, n.o.s.	2627	50	5.1	5.1, 23°(b)
Nitrites, inorganic, aqueous solution, n.o.s.	3219	50	5.1	5.1, 23°(b),(c)
Peroxides, inorganic, n.o.s.	1483	50	5.1	5.1, 25°(b)
General n.o.s. entries				
Oxidizing solid, n.o.s.	1479	50	5.1	5.1, 27°(b),(c)
Oxidizing solid, toxic, n.o.s.	3087	56	5.1+6.1	5.1, 29°(b),(c)
Oxidizing solid, corrosive, n.o.s.	3085	58	5.1+8	5.1, 31°(b),(c)
Class 5.2: Organic peroxides				
Specific collective headings				
Organic peroxide, type F, liquid	3109	539	5.2+(8)	5.2, 9°(b)
Organic peroxide, type F, liquid, temperature controlled	3119	539	5.2	5.2, 19°(b)

Group of substances (a)	Substance Identification No. (Lower part) (b)	Hazard Identification No. (Upper part) (c)	Label (d)	Class and item number (e)
Organic peroxide, type F, solid	3110	539	5.2	5.2, 10°(b)
Organic peroxide, type F, solid, temperature controlled	3120	539	5.2	5.2, 20°(b)
Class 6.1: Toxic substances Specific n.o.s. entries or Specific collective headings Organic substances				
Nitriles, toxic, flammable, n.o.s.	3275 3275	663 63	6.1+3 6.1+3	6.1, 11°(a) 6.1, 11°(b)
Nitriles, toxic, n.o.s.	3276 3276	66 60	6.1 6.1	6.1, 12°(a) 6.1, 12°(b),(c)
Chloropicrin mixture, n.o.s.	1583 1583	66 60	6.1 6.1	6.1, 17°(a) 6.1, 17°(b),(c)
Halogenated irritating liquid, n.o.s.	1610 1610	66 60	6.1 6.1	6.1, 17°(a) 6.1, 17°(b),(c)
Chloroformates, toxic, corrosive, n.o.s.	3277	68	6.1+8	6.1, 27°(b)
Chloroformates, toxic, corrosive, flammable, n.o.s.	2742	638	6.1+3+8	6.1, 28°(b)
Isocyanates, toxic, flammable, n.o.s.	3080	63	6.1+3	6.1, 18°(b)
Isocyanate solution, toxic, flammable, n.o.s.	3080	63	6.1+3	6.1, 18°(b)
Isocyanates, toxic, n.o.s.	2206	60	6.1	6.1, 19°(b),(c)
Isocyanate solution, toxic, n.o.s.	2206	60	6.1	6.1, 19°(b),(c)
Mercaptans, liquid, toxic, flammable, n.o.s.	3071	63	6.1+3	6.1, 20°(b)
Mercaptans mixture, liquid, toxic, flammable, n.o.s.	3071	63	6.1+3	6.1, 20°(b)
Organophosphorus compound, toxic, flammable, n.o.s.	3279 3279	663 663	6.1+3 6.1+3	6.1, 22°(a) 6.1, 22°(b)
Organophosphorus compound, toxic, n.o.s.	3278 3278	66 60	6.1 6.1	6.1, 23°(a) 6.1, 23°(b),(c)
Disinfectant, liquid, toxic, n.o.s.	3142 3142	66 60	6.1 6.1	6.1, 25°(a) 6.1, 25°(b),(c)

Group of substances (a)	Substance Identification No. (Lower part) (b)	Hazard Identification No. (Upper part) (c)	Label (d)	Class and item number (e)
Disinfectant, solid, toxic, n.o.s.	1601 1601	66 60	6.1 6.1	6.1, 25°(a) 6.1, 25°(b),(c)
Dye, liquid, toxic, n.o.s.	1602 1602	66 60	6.1 6.1	6.1, 25°(a) 6.1, 25°(b),(c)
Dye, intermediate, liquid, toxic, n.o.s.	1602 1602	66 60	6.1 6.1	6.1, 25°(a) 6.1, 25°(b),(c)
Dye, solid, toxic, n.o.s.	3143 3143	66 60	6.1 6.1	6.1, 25°(a) 6.1, 25°(b),(c)
Dye intermediate, solid, toxic, n.o.s.	3143 3143	66 60	6.1 6.1	6.1, 25°(a) 6.1, 25°(b),(c)
Tear gas substance, liquid or solid, n.o.s.	1693 1693	66 60	6.1 6.1	6.1, 25°(a) 6.1, 25°(b)
Organometallic substances				
Organotin compound, liquid, n.o.s.	2788 2788	66 60	6.1 6.1	6.1, 32°(a) 6.1, 32°(b),(c)
Organotin compound, solid, n.o.s.	3146 3146	66 60	6.1 6.1	6.1, 32°(a) 6.1, 32°(b),(c)
Phenylmercuric compound, n.o.s.	2026 2026	66 60	6.1 6.1	6.1, 33°(a) 6.1, 33°(b),(c)
Organoarsenic compound, n.o.s.	3280 3280	66 60	6.1 6.1	6.1, 34°(a) 6.1, 34°(b),(c)
Metal carbonyls, n.o.s.	3281 3281	66 60	6.1 6.1	6.1, 36°(a) 6.1, 36°(b),(c)
Inorganic substances				
Cyanides, inorganic, solid, n.o.s.	1588 1588	66 60	6.1 6.1	6.1, 41°(a) 6.1, 41°(b),(c)
Cyanide solution, n.o.s.	1935 1935	66 60	6.1 6.1	6.1, 41°(a) 6.1, 41°(b),(c)
Arsenic compound, liquid, n.o.s. (arsenates, arsenites and arsenic sulphides)	1556 1556	66 60	6.1 6.1	6.1, 51°(a) 6.1, 51°(b),(c)
Arsenic compound, solid, n.o.s. (arsenates, arsenites and arsenic sulphides)	1557 1557	66 60	6.1 6.1	6.1, 51°(a) 6.1, 51°(b),(c)
Mercury compound, liquid, n.o.s.	2024 2024	66 60	6.1 6.1	6.1, 52°(a) 6.1, 52°(b),(c)

Group of substances (a)	Substance Identification No. (Lower part) (b)	Hazard Identification No. (Upper part) (c)	Label (d)	Class and item number (e)
Mercury compound, solid, n.o.s.	2025 2025	66 60	6.1 6.1	6.1, 52°(a) 6.1, 52°(b),(c)
Thallium compound, n.o.s.	1707	60	6.1	6.1, 53°(b)2.
Beryllium compound, n.o.s.	1566	60	6.1	6.1, 54°(b)2.,(c)
Selenium compound, n.o.s.	3283 3283	66 60	6.1 6.1	6.1, 55°(a) 6.1, 55°(b),(c)
Tellurium compound, n.o.s.	3284	60	6.1	6.1, 57°(b),(c)
Vanadium compound, n.o.s.	3285	60	6.1	6.1, 58°(b),(c)
Antimony compound, inorganic, liquid, n.o.s.	3141	60	6.1	6.1, 59°(c)
Antimony compound, inorganic, solid, n.o.s.	1549	60	6.1	6.1, 59°(c)
Barium compound, n.o.s.	1564	60	6.1	6.1, 60°(b),(c)
Lead compound, soluble, n.o.s.	2291	60	6.1	6.1, 62°(c)
Fluorosilicates, n.o.s.	2856	60	6.1	6.1, 64°(c)
Cadmium compound	2570 2570	66 60	6.1 6.1	6.1, 61°(a) 6.1, 61°(b),(c)
Pesticides				
Organophosphorus pesticide, solid, toxic	2783 2783	66 60	6.1 6.1	6.1, 71°(a) 6.1, 71°(b),(c)
Organophosphorus pesticide, liquid, toxic, flammable	3017 3017	663 63	6.1+3 6.1+3	6.1, 71°(a) 6.1, 71°(b),(c)
Organophosphorus pesticide, liquid, toxic	3018 3018	66 60	6.1 6.1	6.1, 71°(a) 6.1, 71°(b),(c)
Organochlorine pesticide, solid, toxic	2761 2761	66 60	6.1 6.1	6.1, 72°(a) 6.1, 72°(b),(c)
Organochlorine pesticide, liquid, toxic, flammable	2995 2995	663 63	6.1+3 6.1+3	6.1, 72°(a) 6.1, 72°(b),(c)
Organochlorine pesticide, liquid, toxic	2996 2996	66 60	6.1 6.1	6.1, 72°(a) 6.1, 72°(b),(c)
Phenoxy pesticide, solid, toxic	2765 2765	66 60	6.1 6.1	6.1, 73°(a) 6.1, 73°(b),(c)
Phenoxy pesticide, liquid, toxic, flammable	2999 2999	63 63	6.1+3 6.1+3	6.1, 73°(a) 6.1, 73°(b),(c)

Group of substances (a)	Substance Identification No. (Lower part) (b)	Hazard Identification No. (Upper part) (c)	Label (d)	Class and item number (e)
Phenoxy pesticide, liquid, toxic	3000	66	6.1	6.1, 73°(a)
	3000	60	6.1	6.1, 73°(b),(c)
Carbamate pesticide, solid, toxic	2757	66	6.1	6.1, 74°(a)
	2757	60	6.1	6.1, 74°(b),(c)
Carbamate pesticide, liquid, toxic flammable	2991	663	6.1+3	6.1, 74°(a)
	2991	63	6.1+3	6.1, 74°(b),(c)
Carbamate pesticide, liquid, toxic	2992	66	6.1	6.1, 74°(a)
	2992	60	6.1	6.1, 74°(b),(c)
Mercury based pesticide, solid, toxic	2777	66	6.1	6.1, 75°(a)
	2777	60	6.1	6.1, 75°(b),(c)
Mercury based pesticide, liquid, toxic, flammable	3011	663	6.1+3	6.1, 75°(a)
	3011	63	6.1+3	6.1, 75°(b),(c)
Mercury based pesticide, liquid, toxic	3012	66	6.1	6.1, 75°(a)
	3012	60	6.1	6.1, 75°(b),(c)
Organotin pesticide, solid, toxic	2786	66	6.1	6.1, 76°(a)
	2786	60	6.1	6.1, 76°(b),(c)
Organotin pesticide, liquid, toxic, flammable	3019	663	6.1+3	6.1, 76°(a)
	3019	63	6.1+3	6.1, 76°(b),(c)
Organotin pesticide, liquid, toxic	3020	66	6.1	6.1, 76°(a)
	3020	60	6.1	6.1, 76°(b),(c)
Coumarin derivative pesticide, liquid, toxic, flammable	3025	663	6.1+3	6.1, 77°(a)
	3025	63	6.1+3	6.1, 77°(b),(c)
Coumarin derivative pesticide, liquid, toxic	3026	66	6.1	6.1, 77°(a)
	3026	60	6.1	6.1, 77°(b),(c)
Coumarin derivative pesticide, solid, toxic	3027	66	6.1	6.1, 77°(a)
	3027	60	6.1	6.1, 77°(b),(c)
Bipyridilium pesticide, solid, toxic	2781	66	6.1	6.1, 78°(a)
	2781	60	6.1	6.1, 78°(b),(c)
Bipyridilium pesticide, liquid, toxic, flammable	3015	663	6.1+3	6.1, 78°(a)
	3015	63	6.1+3	6.1, 78°(b),(c)
Bipyridilium pesticide, liquid, toxic	3016	66	6.1	6.1, 78°(a)
	3016	60	6.1	6.1, 78°(b),(c)
Arsenical pesticide, solid, toxic	2759	66	6.1	6.1, 79°(a)
	2759	60	6.1	6.1, 79°(b),(c)
Arsenical pesticide, liquid, toxic, flammable	2993	663	6.1+3	6.1, 79°(a)
	2993	63	6.1+3	6.1, 79°(b),(c)

Group of substances (a)	Substance Identification No. (Lower part) (b)	Hazard Identification No. (Upper part) (c)	Label (d)	Class and item number (e)
Arsenical pesticide, liquid, toxic	2994	66	6.1	6.1, 79°(a)
	2994	60	6.1	6.1, 79°(b),(c)
Copper based pesticide, solid, toxic	2775	66	6.1	6.1, 80°(a)
	2775	60	6.1	6.1, 80°(b),(c)
Copper based pesticide, liquid, toxic, flammable	3009	663	6.1+3	6.1, 80°(a)
	3009	63	6.1+3	6.1, 80°(b),(c)
Copper based pesticide, liquid, toxic	3010	66	6.1	6.1, 80°(a)
	3010	60	6.1	6.1, 80°(b),(c)
Substituted nitrophenol pesticide, solid, toxic	2779	66	6.1	6.1, 81°(a)
	2779	60	6.1	6.1, 81°(b),(c)
Substituted nitrophenol pesticide, liquid, toxic, flammable	3013	663	6.1+3	6.1, 81°(a)
	3013	63	6.1+3	6.1, 81°(b),(c)
Substituted nitrophenol pesticide, liquid, toxic	3014	66	6.1	6.1, 81°(a)
	3014	60	6.1	6.1, 81°(b),(c)
Triazine pesticide, solid, toxic	2763	66	6.1	6.1, 82°(a)
	2763	60	6.1	6.1, 82°(b),(c)
Triazine pesticide, liquid, toxic, flammable	2997	663	6.1+3	6.1, 82°(a)
	2997	63	6.1+3	6.1, 82°(b),(c)
Triazine pesticide, liquid, toxic	2998	66	6.1	6.1, 82°(a)
	2998	60	6.1	6.1, 82°(b),(c)
Benzoic derivative pesticide, solid, toxic	2769	66	6.1	6.1, 83°(a)
	2769	60	6.1	6.1, 83°(b),(c)
Benzoic derivative pesticide, liquid, toxic, flammable	3003	663	6.1+3	6.1, 83°(a)
	3003	63	6.1+3	6.1, 83°(b),(c)
Benzoic derivative pesticide, liquid toxic	3004	66	6.1	6.1, 83°(a)
	3004	60	6.1	6.1, 83°(b),(c)
Phthalimide derivative pesticide, liquid, toxic	2773	66	6.1	6.1, 84°(a)
	2773	60	6.1	6.1, 84°(b),(c)
Phthalimide derivative pesticide, liquid, toxic, flammable	3007	663	6.1+3	6.1, 84°(a)
	3007	63	6.1+3	6.1, 84°(b),(c)
Phthalimide derivative pesticide, liquid, toxic	3008	66	6.1	6.1, 84°(a)
	3008	60	6.1	6.1, 84°(b),(c)
Phenyl urea pesticide, solid, toxic	2767	66	6.1	6.1, 85°(a)
	2767	60	6.1	6.1, 85°(b),(c)
Phenyl urea pesticide, liquid, toxic, flammable	3001	663	6.1+3	6.1, 85°(a)
	3001	63	6.1+3	6.1, 85°(b),(c)

Group of substances (a)	Substance Identification No. (Lower part) (b)	Hazard Identification No. (Upper part) (c)	Label (d)	Class and item number (e)
Phenyl urea pesticide, liquid, toxic	3002	66	6.1	6.1, 85°(a)
	3002	60	6.1	6.1, 85°(b),(c)
Dithiocarbamate pesticide, solid, toxic	2771	66	6.1	6.1, 86°(a)
	2771	60	6.1	6.1, 86°(b),(c)
Dithiocarbamate pesticide, liquid, toxic, flammable	3005	663	6.1+3	6.1, 86°(a)
	3005	63	6.1+3	6.1, 86°(b),(c)
Dithiocarbamate pesticide, liquid, toxic	3006	66	6.1	6.1, 86°(a)
	3006	60	6.1	6.1, 86°(b),(c)
Pesticide solid, toxic, n.o.s.	2588	66	6.1	6.1, 87°(a)
	2588	60	6.1	6.1, 87°(b),(c)
Pesticide liquid, toxic, n.o.s.	2902	66	6.1	6.1, 87°(a)
	2902	60	6.1	6.1, 87°(b),(c)
Pesticide liquid, toxic, flammable, n.o.s.	2903	663	6.1+3	6.1, 87°(a)
	2903	63	6.1+3	6.1, 87°(b),(c)
Actives substances				
Alkaloids or Alkaloid salts, liquid, n.o.s.	3140	66	6.1	6.1, 90°(a)
	3140	60	6.1	6.1, 90°(b),(c)
Alkaloids or Alkaloid salts, solid, n.o.s.	1544	66	6.1	6.1, 90°(a)
	1544	60	6.1	6.1, 90°(b),(c)
Nicotine compound or nicotine preparation, liquid, n.o.s.	3144	66	6.1	6.1, 90°(a)
	3144	60	6.1	6.1, 90°(b),(c)
Nicotine compound or nicotine preparation, solid, n.o.s.	1655	66	6.1	6.1, 90°(b),(c)
	1655	60	6.1	6.1, 90°(b),(c)
Toxins, extracted from living sources, n.o.s.	3172	66	6.1	6.1, 90°(a)
	3172	60	6.1	6.1, 90°(b),(c)
Medicine, liquid, toxic, n.o.s.	1851	60	6.1	6.1, 90°(b),(c)
Medicine, solid, toxic, n.o.s.	3249	60	6.1	6.1, 90°(b),(c)
General n.o.s. entries				
Organic substances				
Toxic liquid, organic, n.o.s.	2810	66	6.1	6.1, 25°(a)
	2810	60	6.1	6.1, 25°(b),(c)
Toxic solid, organic, n.o.s.	2811	66	6.1	6.1, 25°(a)
	2811	60	6.1	6.1, 25°(b),(c)
Toxic liquid, flammable, organic, n.o.s.	2929	663	6.1+3	6.1, 26°(a)1.
	2929	63	6.1+3	6.1, 26°(b)1.

Group of substances (a)	Substance Identification No. (Lower part) (b)	Hazard Identification No. (Upper part) (c)	Label (d)	Class and item number (e)
Toxic solid, flammable, organic, n.o.s.	2930 2930	664 64	6.1+4.1 6.1+4.1	6.1, 26°(a)2. 6.1, 26°(b)2.
Toxic liquid, corrosive, organic, n.o.s.	2927 2927	668 68	6.1+8 6.1+8	6.1, 27°(a) 6.1, 27°(b)
Toxic solid, corrosive, organic, n.o.s.	2928 2928	668 68	6.1+8 6.1+8	6.1, 27°(a) 6.1, 27°(b)
Organometallic substances				
Organometallic compound toxic, n.o.s.	3282 3282	66 60	6.1 6.1	6.1, 35°(a) 6.1, 35°(b),(c)
Inorganic substances				
Toxic liquid, water-reactive, n.o.s.	3123	623	6.1+4.3	6.1, 44°(b),(c)
Toxic solid, water-reactive, n.o.s.	3125	642	6.1+4.3	6.1, 44°(b),(c)
Solids containing toxic liquid, n.o.s.	3243	60	6.1	6.1, 65°(b)
Toxic liquid, inorganic, n.o.s.	3287 3287	66 60	6.1 6.1	6.1, 65°(a) 6.1, 65°(b),(c)
Toxic solid, inorganic, n.o.s.	3288 3288	66 60	6.1 6.1	6.1, 65°(a) 6.1, 65°(b),(c)
Toxic solid, self-heating, n.o.s.	3124 3124	664 64	6.1+4.2 6.1+4.2	6.1, 66°(a) 6.1, 66°(b)
Toxic liquid, corrosive, inorganic, n.o.s.	3289 3289	668 68	6.1+8 6.1+8	6.1, 67°(a) 6.1, 67°(b)
Toxic solid, corrosive, inorganic, n.o.s.	3290 3290	668 68	6.1+8 6.1+8	6.1, 67°(a) 6.1, 67°(b)
Toxic liquid, oxidizing, n.o.s.	3122 3122	665 65	6.1+05 6.1+05	6.1, 68°(a) 6.1, 68°(b)
Toxic solid, oxidizing, n.o.s.	3086 3086	665 65	6.1+05 6.1+05	6.1, 68°(a) 6.1, 68°(b)
Class 6.2: Infectious substances				
Specific collective headings				
Infectious substance, affecting humans	2814	606	6.2	6.2, 3°(b)
Infectious substance, affecting animals only	2900	606	6.2	6.2, 3°(b)
General n.o.s. entries				
Clinical waste, unspecified, n.o.s.	3291	606	6.2	6.2, 4°(b)

Group of substances (a)	Substance Identification No. (Lower part) (b)	Hazard Identification No. (Upper part) (c)	Label (d)	Class and item number (e)
Class 7: Radioactive material Specific n.o.s. entries				
Radioactive material, low specific activity (LSA), n.o.s.	2912	70	7A,7B or 7C	7, Sch 5,6 or 13
gas		72	7A,7B or 7C	
gas, flammable		723	7A,7B, or 7C+3	
liquid, flammable with flash-point not above 61°C		73	7A,7B or 7C+3	
solid, flammable		74	7A,7B or 7C+4.1	
oxidizing		75	7A,7B or 7C+05	
toxic		76	7A,7B or 7C+6.1	
corrosive		78	7A,7B or 7C+8	
General n.o.s. entries				
Radioactive material, n.o.s.	2982	70	7A,7B or 7C	7, Sch 9,10,11 or 13
gas		72	7A,7B or 7C	
gas, flammable		723	7A,7B or 7C+3	
liquid, flammable with flash-point not above 61°C		73	7A,7B or 7C+3	
solid, flammable		74	7A,7B or 7C+4.1	
oxidizing		75	7A,7B or 7C+05	
toxic		76	7A,7B or 7C+6.1	
corrosive		78	7A,7B or 7C+8	
Class 8: Corrosive substances Specific n.o.s. entries Inorganic substances				
Hydrogen difluorides, n.o.s.	1740	80	8	8, 9°(b),(c)

Group of substances (a)	Substance Identification No. (Lower part) (b)	Hazard Identification No. (Upper part) (c)	Label (d)	Class and item number (e)
Bisulphites, aqueous solution, n.o.s.	2693	80	8	8, 17°(c)
Organic substances				
Chlorosilanes, corrosive, n.o.s.	2987	80	8	8, 36°(b)
Chlorosilanes, corrosive, flammable, n.o.s.	2986	X83	8 + 3	8, 37°(b)
Alkylphenols, solid, n.o.s.	2430 2430	88 80	8 8	8, 39°(a) 8, 39°(b),(c)
Alkylphenols, liquid, n.o.s.	3145 3145	88 80	8 8	8, 40°(a) 8, 40°(b),(c)
Amines or polyamines, solid, corrosive, n.o.s.	3259 3259	88 80	8 8	8, 52°(a) 8, 52°(b),(c)
Amines or polyamines, liquid, corrosive, n.o.s.	2735 2735	88 80	8 8	8, 53°(a) 8, 53°(b),(c)
Amines or polyamines, liquid, corrosive, flammable, n.o.s.	2734 2734	883 83	8 + 3 8 + 3	8, 54°(a) 8, 54°(b)
Dye or dye intermediate, solid, corrosive, n.o.s.	3147	80	8	8, 65°(b),(c)
Dye or dye intermediate, liquid, corrosive, n.o.s.	2801	80	8	8, 66°(b),(c)
Disinfectant, liquid, corrosive, n.o.s.	1903 1903	88 80	8 8	8, 66°(a) 8, 66°(b),(c)
General n.o.s. entries				
Acid substances				
Corrosive solid, acidic, inorganic, n.o.s.	3260 3260	88 80	8 8	8, 16°(a) 8, 16°(b),(c)
Corrosive liquid, acidic, inorganic, n.o.s.	3264 3264	88 80	8 8	8, 17°(a) 8, 17°(b),(c)
Organic substances				
Corrosive solid, acidic, organic, n.o.s.	3261 3261	88 80	8 8	8, 39°(a) 8, 39°(b),(c)
Corrosive liquid, acidic, organic, n.o.s.	3265 3265	88 80	8 8	8, 40°(a) 8, 40°(b),(c)

Group of substances (a)	Substance Identification No. (Lower part) (b)	Hazard Identification No. (Upper part) (c)	Label (d)	Class and item number (e)
Basic substances				
Inorganic substances				
Caustic alkali liquid, n.o.s.	1719	80	8	8, 42°(b),(c)
Corrosive solid, basic, inorganic, n.o.s.	3262 3262	88 80	8 8	8, 46°(a) 8, 46°(b),(c)
Corrosive liquid, basic, inorganic, n.o.s.	3266 3266	88 80	8 8	8, 47°(a) 8, 47°(b),(c)
Organic substances				
Corrosive solid, basic, organic, n.o.s.	3263 3263	88 80	8 8	8, 55°(a) 8, 55°(b),(c)
Corrosive liquid, basic, organic, n.o.s.	3267 3267	88 80	8 8	8, 56°(a) 8, 56°(b),(c)
Other corrosive substances				
Solids containing corrosive liquid, n.o.s.	3244	80	8	8, 65°(b)
Corrosive solid, n.o.s.	1759 1759	88 80	8 8	8, 65°(a) 8, 65°(b),(c)
Corrosive liquid, n.o.s.	1760 1760	88 80	8 8	8, 66°(a) 8, 66°(b),(c)
Corrosive solid, flammable, n.o.s.	2921 2921	884 84	8+4.1 8+4.1	8, 67°(a) 8, 67°(b)
Corrosive liquid, flammable, n.o.s.	2920 2920	883 83	8+3 8+3	8, 68°(a) 8, 68°(b)
Corrosive solid, self-heating, n.o.s.	3095	84	8+4.2	8, 69°(b)
Corrosive liquid, self-heating, n.o.s.	3301 3301	884 84	8+4.2 8+4.2	8, 70°(a) 8, 70°(b)
Corrosive solid, water-reactive, n.o.s.	3096	842	8+4.3	8, 71°(b)
Corrosive liquid, water-reactive, n.o.s.	3094	823	8+4.3	8, 72°(a),(b)
Corrosive solid, oxidizing, n.o.s.	3084 3084	885 85	8+05 8+05	8, 73°(a) 8, 73°(b)
Corrosive liquid, oxidizing, n.o.s.	3093 3093	885 85	8+05 8+05	8, 74°(a) 8, 74°(b)
Corrosive solid, toxic, n.o.s.	2923 2923	886 86	8+6.1 8+6.1	8, 75°(a) 8, 75°(b),(c)

Group of substances (a)	Substance Identification No. (Lower part) (b)	Hazard Identification No. (Upper part) (c)	Label (d)	Class and item number (e)
Corrosive liquid, toxic, n.o.s.	2922 2922	886 86	8+6.1 8+6.1	8, 76°(a) 8, 76°(b),(c)
Class 9: Miscellaneous dangerous substances and articles Environmentally hazardous substances				
Environmentally hazardous substance, liquid, n.o.s.	3082	90	9	9, 11°(c)
Environmentally hazardous substance, solid, n.o.s.	3077	90	9	9, 12°(c)

Table 3

Numerical list - this table contains all the entries of tables 1 and 2 in substance identification number order

Substance Identification No. (Lower part) (a)	Name of substance (b)	Hazard Identification No. (Upper part) (c)	Label (d)	Class and item number (e)
1002	Air, compressed	20	2	2, 2°(a)
1003	Air, deeply-refrigerated	225	2+05	2, 8°(a)
1005	Ammonia	268	6.1	2, 3°(at)
1006	Argon, compressed	20	2	2, 1°(a)
1008	Boron trifluoride	26	6.1	2, 1°(at)
1009	Bromotrifluoromethane (R 13 B1)	20	2	2, 5°(a)
1010	1,3-Butadiene	239	3	2, 3°(c)
1010	Mixtures of 1,3-butadiene and hydrocarbons	239	3	2, 4°(c)
1010	1,2-Butadiene	239	3	2, 3°(c)
1011	Butane, technically-pure	23	3	2, 3°(b)
1012	1-Butylene (1-Butene)	23	3	2, 3°(b)
1012	cis-2-Butylene (cis-2-Butene)	23	3	2, 3°(b)
1012	trans-2-Butylene (trans-2-Butene)	23	3	2, 3°(b)
1013	Carbon dioxide	20	2	2, 5°(a)
1014	Carbon dioxide containing not less than 1% and not more than 10% oxygen by mass	20	2	2, 6°(a)
1016	Carbon monoxide	236	6.1+3	2, 1°(bt)
1017	Chlorine	266	6.1+8	2, 3°(at)
1018	Chlorodifluoromethane (R 22)	20	2	2, 3°(a)
1020	Chloropentafluoroethane (R 115)	20	2	2, 3°(a)
1021	1-Chloro-1,2,2,2-tetrafluoroethane (R 124)	20	2	2, 3°(a)
1022	Chlorotrifluoromethane (R 13)	20	2	2, 5°(a)
1027	Cyclopropane	23	3	2, 3°(b)
1028	Dichlorodifluoromethane (R 12)	20	2	2, 3°(a)
1029	Dichlorofluoromethane (R 21)	20	2	2, 3°(a)

Substance Identification No. (Lower part) (a)	Name of substance (b)	Hazard Identification No. (Upper part) (c)	Label (d)	Class and item number (e)
1030	1,1-Difluoroethane (R 152a)	23	3	2, 3°(b)
1032	Dimethylamine, anhydrous	236	3+6.1	2, 3°(bt)
1033	Dimethyl ether	23	3	2, 3°(b)
1035	Ethane	23	3	2, 5°(b)
1036	Ethylamine, anhydrous	236	3+6.1	2, 3°(bt)
1037	Ethyl chloride	236	3+6.1	2, 3°(bt)
1038	Ethylene, deeply-refrigerated	223	3	2, 7°(b)
1040	Ethylene oxide with nitrogen	236	3+6.1	2, 4°(ct)
1041	Ethylene oxide containing not more than 10% carbon dioxide by mass	236	3+6.1	2, 4°(ct)
1041	Ethylene oxide containing more than 10% but not more than 50% carbon dioxide	236	3+6.1	2, 6°(ct)
1041	Carbon dioxide containing not more than 35% ethylene oxide by mass	239	3	2, 6°(c)
1046	Helium, compressed	20	2	2, 1°(a)
1048	Hydrogen bromide	286	8+6.1	2, 3°(at)
1049	Hydrogen, compressed	23	3	2, 1°(b)
1050	Hydrogen chloride	286	8+6.1	2, 5°(at)
1052	Hydrogen fluoride, anhydrous	886	8+6.1	8, 6°
1053	Hydrogen sulphide	236	3+6.1	2, 3°(bt)
1055	Isobutylene	23	3	2, 3°(b)
1056	Krypton, compressed	20	2	2, 1°(a)
1060	Mixtures of methylacetylene and propadiene with hydrocarbons	239	3	2, 4°(c)
1061	Methylamine, anhydrous	236	3+6.1	2, 3°(bt)
1062	Methyl bromide	26	6.1	2, 3°(at)
1063	Methyl chloride	236	3+6.1	2, 3°(bt)
1064	Methyl mercaptan	236	3+6.1	2, 3°(bt)
1065	Neon, compressed	20	2	2, 1°(a)
1066	Nitrogen, compressed	20	2	2, 1°(a)

Substance Identification No. (Lower part) (a)	Name of substance (b)	Hazard Identification No. (Upper part) (c)	Label (d)	Class and item number (e)
1067	Nitrogen dioxide (NO ₂)	265	6.1+05	2, 3°(at)
1070	Nitrous oxide (N ₂ O)	25	2+05	2, 5°(a)
1072	Oxygen, compressed	20	2+05	2, 1°(a)
1073	Oxygen, deeply-refrigerated	225	2+05	2, 7°(a)
1076	Phosgene	266	6.1+8	2, 3°(at)
1077	Propylene	23	3	2, 3°(b)
1078	Mixtures F1, F2 and F3	20	2	2, 4°(a)
1079	Sulphur dioxide	26	6.1	2, 3°(at)
1080	Sulphur hexafluoride	20	2	2, 5°(a)
1082	Trifluorochloroethylene (R 1113)	236	3+6.1	2, 3°(ct)
1083	Trimethylamine, anhydrous	236	3+6.1	2, 3°(bt)
1085	Vinyl bromide	236	3+6.1	2, 3°(ct)
1086	Vinyl chloride	239	3	2, 3°(c)
1087	Methyl vinyl ether	236	3+6.1	2, 3°(ct)
1088	Acetal	33	3	3, 3°(b)
1089	Acetaldehyde	33	3	3, 1°(a)
1090	Acetone	33	3	3, 3°(b)
1091	Acetone oils	33	3	3, 3°(b)
1092	Acrolein, inhibited	663	6.1+3	6.1, 8°(a)
1093	Acrylonitrile, inhibited	336	3+6.1	3, 11°(a)
1098	Allyl alcohol	663	6.1+3	6.1, 8°(a)
1099	Allyl bromide	336	3+6.1	3, 16°(a)
1100	Allyl chloride	336	3+6.1	3, 16°(a)
1104	Amyl acetates	30	3	3, 31°(c)
1105	Amyl alcohols	30	3	3, 31°(c)
1105	Amyl alcohols	33	3	3, 3°(b)
1106	Amylamine (n-amylamine, tert-amylamine)	338	3+8	3, 22°(b)
1106	Amylamine (sec-amylamine)	38	3+8	3, 33°(c)
1107	Amyl chloride	33	3	3, 3°(b)

Substance Identification No. (Lower part) (a)	Name of substance (b)	Hazard Identification No. (Upper part) (c)	Label (d)	Class and item number (e)
1108	1-Pentene (n-Amylene)	33	3	3, 1°(a)
1109	Amyl formates	30	3	3, 31°(c)
1110	n-Amyl methyl ketone	30	3	3, 31°(c)
1111	Amyl mercaptan	33	3	3, 3°(b)
1112	Amyl nitrate	30	3	3, 31°(c)
1113	Amyl nitrite	33	3	3, 3°(b)
1114	Benzene	33	3	3, 3°(b)
1120	Butanols	33	3	3, 3°(b)
1120	Butanols	30	3	3, 31°(c)
1123	Butyl acetates	30	3	3, 31°(c)
1123	Butyl acetates	33	3	3, 3°(b)
1125	n-Butylamine	338	3+8	3, 22°(b)
1126	1-Bromobutane (n-Butyl bromide)	33	3	3, 3°(b)
1127	Chlorobutanes	33	3	3, 3°(b)
1128	n-Butyl formate	33	3	3, 3°(b)
1129	Butyraldehyde	33	3	3, 3°(b)
1130	Camphor oil	30	3	3, 31°(c)
1131	Carbon disulphide (Carbon sulphide)	336	3+6.1	3, 18°(a)
1133	Adhesives	33	3	3, 5°(a),(b),(c)
1133	Adhesives	30	3	3, 31°(c)
1134	Chlorobenzene	30	3	3, 31°(c)
1135	Ethylene chlorohydrin	663	6.1+3	6.1, 16°(a)
1136	Coal tar distillates	33	3	3, 3°(b)
1136	Coal tar distillates	30	3	3, 31°(c)
1139	Coating solution	33	3	3, 5°(a),(b),(c)
1139	Coating solution	30	3	3, 31°(c)
1143	Crotonaldehyde, stabilized	663	6.1+3	6.1, 8°(a)
1144	Crotonylene (2-Butyne)	339	3	3, 1°(a)
1145	Cyclohexane	33	3	3, 3°(b)

Substance Identification No. (Lower part) (a)	Name of substance (b)	Hazard Identification No. (Upper part) (c)	Label (d)	Class and item number (e)
1146	Cyclopentane	33	3	3, 3°(b)
1147	Decahydronaphthalene	30	3	3, 31°(c)
1148	Diacetone alcohol, technical	33	3	3, 3°(b)
1148	Diacetone alcohol, chemically pure	30	3	3, 31°(c)
1149	Dibutyl ethers	30	3	3, 31°(c)
1150	1,2-Dichloroethylene	33	3	3, 3°(b)
1152	Dichloropentanes	30	3	3, 31°(c)
1153	Ethylene glycol diethyl ether	30	3	3, 31°(c)
1154	Diethylamine	338	3+8	3, 22°(b)
1155	Diethyl ether (ethyl ether)	33	3	3, 2°(a)
1156	Diethyl ketone	33	3	3, 3°(b)
1157	Diisobutyl ketone	30	3	3, 31°(c)
1158	Diisopropylamine	338	3+8	3, 22°(b)
1159	Diisopropyl ether	33	3	3, 3°(b)
1160	Dimethylamine aqueous solution	338	3+8	3, 22°(b)
1161	Dimethyl carbonate	33	3	3, 3°(b)
1162	Dimethyldichlorosilane	X338	3+8	3, 21°(b)
1163	Dimethylhydrazine, unsymmetrical	663	6.1+3+8	6.1, 7°(a)1.
1164	Dimethyl sulphide	33	3	3, 2°(b)
1165	Dioxane	33	3	3, 3°(b)
1166	Dioxolane	33	3	3, 3°(b)
1167	Divinyl ether inhibited	339	3	3, 2°(a)
1169	Extracts, aromatic, liquid	33	3	3, 5°(a),(b),(c)
1169	Extracts, aromatic, liquid	30	3	3, 31°(c)
1170	Ethanol or ethanol solution containing more than 70 vol.-% alcohol	33	3	3, 3°(b)
1170	Ethanol solution containing more than 24 vol.-% and not more 70 vol.-% alcohol	30	3	3, 31°(c)
1171	Ethylene glycol monomethyl ether	30	3	3, 31°(c)

Substance Identification No. (Lower part) (a)	Name of substance (b)	Hazard Identification No. (Upper part) (c)	Label (d)	Class and item number (e)
1172	Ethylene glycol monomethyl ether acetate	30	3	3, 31°(c)
1173	Ethyl acetate	33	3	3, 3°(b)
1175	Ethylbenzene	33	3	3, 3°(b)
1176	Ethyl borate	33	3	3, 3°(b)
1177	Ethylbutyl acetate	30	3	3, 31°(c)
1178	2-Ethylbutyraldehyde	33	3	3, 3°(b)
1179	Ethyl butyl ether	33	3	3, 3°(b)
1180	Ethyl butyrate	30	3	3, 31°(c)
1181	Ethyl chloroacetate	63	6.1+3	6.1, 16°(b)
1182	Ethyl chloroformate	663	6.1+3+8	6.1, 10°(a)
1183	Ethylchlorosilane	X338	4.3+3+8	4.3, 1°(a)
1184	1,2-Dichloroethane (Ethylene dichloride)	336	3+6.1	3, 16°(b)
1185	Ethyleneimine, inhibited	663	6.1+3	6.1, 4°
1188	Ethylene glycol monomethyl ether	30	3	3, 31°(c)
1189	Ethylene glycol monomethyl ether acetate	30	3	3, 31°(c)
1190	Ethyl formate	33	3	3, 3°(b)
1191	Octyl aldehydes (Ethyl hexaldehydes)	30	3	3, 31°(c)
1192	Ethyl lactate	30	3	3, 31°(c)
1193	Ethyl methyl ketone (methyl ethyl ketone)	33	3	3, 3°(b)
1194	Ethyl nitrite solution	336	3+6.1	3, 15°(a)
1195	Ethyl propionate	33	3	3, 3°(b)
1196	Ethyltrichlorosilane	X338	3+8	3, 21°(b)
1197	Extracts, flavouring, liquid	33	3	3, 5°(a),(b),(c)
1197	Extracts, flavouring, liquid	30	3	3, 31°(c)
1198	Formaldehyde solution, flammable	38	3+8	3, 33°(c)
1199	Furfural (furfuraldehyde)	30	3	3, 31°(c)
120 ¹	Fusel oil	33	3	3, 3°(b)

Substance Identification No. (Lower part) (a)	Name of substance (b)	Hazard Identification No. (Upper part) (c)	Label (d)	Class and item number (e)
1201	Fusel oil	30	3	3, 31°(c)
1202	Gasoil	30	3	3, 31°(c)
1202	Diesel fuel	30	3	3, 31°(c)
1202	Heating oil (light)	30	3	3, 31°(c)
1203	Motor spirit	33	3	3, 3°(b)
1206	Heptanes	33	3	3, 3°(b)
1207	Hexaldehyde	30	3	3, 31°(c)
1208	Hexanes	33	3	3, 3°(b)
1210	Printing ink	33	3	3, 5°(a),(b),(c)
1210	Printing ink	30	3	3, 31°(c)
1212	Isobutanol	30	3	3, 31°(c)
1213	Isobutyl acetate	33	3	3, 3°(b)
1214	Isobutylamine	338	3+8	3, 22°(b)
1216	Isoctenes	33	3	3, 3°(b)
1218	Isoprene, inhibited	339	3	3, 2°(a)
1219	Isopropanol (Isopropyl alcohol)	33	3	3, 3°(b)
1220	Isopropyl acetate	33	3	3, 3°(b)
1221	Isopropylamine	338	3+8	3, 22°(a)
1223	Kerosene	30	3	3, 31°(c)
1224	Ketones, n.o.s.	33	3	3, 2°(b), 3°(b)
1224	Ketones, n.o.s.	30	3	3, 31°(c)
1228	Mercaptans or mercaptan mixture, liquid, flammable, toxic n.o.s.	336	3+6.1	3, 18°(b)
1228	Mercaptans or mercaptans mixture, liquid, flammable, toxic, n.o.s.	36	3+6.1	3, 32°(c)
1229	Mesityl oxide	30	3	3, 31°(c)
1230	Methanol	336	3+6.1	3, 17°(b)
1231	Methyl acetate	33	3	3, 3°(b)
1233	Methylamyl acetate	30	3	3, 31°(c)
1234	Methylal	33	3	3, 2°(b)

Substance Identification No. (Lower part) (a)	Name of substance (b)	Hazard Identification No. (Upper part) (c)	Label (d)	Class and item number (e)
1235	Methylamine, aqueous solution	338	3+8	3, 22°(b)
1237	Methyl butyrate	33	3	3, 3°(b)
1238	Methyl chloroformate	663	6.1+3+8	6.1, 10°(a)
1239	Methyl chloromethyl ether	663	6.1+3	6.1, 9°(a)
1242	Methyldichlorosilane	X338	4.3+3+8	4.3, 1°(a)
1243	Methyl formate	33	3	3, 1°(a)
1244	Methylhydrazine	3	6.1+3+8	6.1, 7°(a)1.
1245	Methyl isobutyl ketone	33	3	3, 3°(b)
1246	Methyl isopropenyl ketone, inhibited	339	3	3, 3°(b)
1247	Methyl methacrylate monomer, inhibited	339	3	3, 3°(b)
1248	Methyl propionate	33	3	3, 3°(b)
1249	Methyl propyl ketone	33	3	3, 3°(b)
1250	Methyltrichlorosilane	X338	3+8	3, 21°(a)
1251	Methyl vinyl ketone	339	3	3, 3°(b)
1259	Nickel carbonyl	663	6.1+3	6.1, 3°
1262	Octanes	33	3	3, 3°(b)
1263	Paint	33	3	3, 5°(a),(b),(c)
1263	Paint	30	3	3, 31°(c)
1263	Paint related material	33	3	3, 5°(a),(b),(c)
1263	Paint related material	30	3	3, 31°(c)
1264	Paraldehyde	30	3	3, 31°(c)
1265	Pentanes, liquid	33	3	3, 1°(a), 2°(b)
1266	Perfumery products	33	3	3, 5°(a),(b),(c)
1266	Perfumery products	30	3	3, 31°(c)
1267	Petroleum crude oil	33	3	3, 1°(a), 2°(a),(b), 3(c)
1267	Petroleum crude oil	30	3	3, 31°(c)
1268	Petroleum distillates, n.o.s.	33	3	3, 1°(a), 2°(a),(b), 3°(c)

Substance Identification No. (Lower part) (a)	Name of substance (b)	Hazard Identification No. (Upper part) (c)	Label (d)	Class and item number (e)
1268	Petroleum distillates, n.o.s.	30	3	3, 31°(c)
1268	Petroleum products, n.o.s.	33	3	3, 1°(a), 2°(a),(b), 3°(c)
1268	Petroleum products, n.o.s.	30	3	3, 31°(c)
1272	Pine oil	30	3	3, 31°(c)
1274	n-Propanol	33	3	3, 3°(b)
1274	n-Propanol	30	3	3, 31°(c)
1275	Propionaldehyde	33	3	3, 3°(b)
1276	n-Propyl acetate	33	3	3, 3°(b)
1277	Propylamine	338	3+8	3, 22°(b)
1278	1-Chloropropane (Propyl chloride)	33	3	3, 2°(b)
1279	1,2-Dichloropropane	33	3	3, 3°(b)
1280	Propylene oxide, inhibited	339	3	3, 2°(a)
1281	Propyl formates	33	3	3, 3°(b)
1282	Pyridine	33	3	3, 3°(b)
1286	Rosin oil	33	3	3, 5°(a),(b),(c)
1286	Rosin oil	30	3	3, 31°(c)
1287	Rubber solution	33	3	3, 5°(a),(b),(c)
1287	Rubber solution	30	3	3, 31°(c)
1288	Shale oil	33	3	3, 3°(b)
1288	Shale oil	30	3	3, 31°(c)
1289	Sodium methylate solution	338	3+8	3, 24°(b)
1289	Sodium methylate solution	38	3+8	3, 33°(c)
1292	Tetraethyl silicate	30	3	3, 31°(c)
1293	Tinctures, medicinal	33	3	3, 3°(b)
1293	Tinctures, medicinal	30	3	3, 31°(c)
1294	Toluene	33	3	3, 3°(b)
1295	Trichlorosilane	X338	4.3+3+8	4.3, 1°(a)
1296	Triethylamine	338	3+8	3, 22°(b)
1297	Trimethylamine, aqueous solution	338	3+8	3, 22°(a),(b)

Substance Identification No. (Lower part) (a)	Name of substance (b)	Hazard Identification No. (Upper part) (c)	Label (d)	Class and item number (e)
1297	Trimethylamine, aqueous solution	38	3+8	3, 33°(c)
1298	Trimethylchlorosilane	X338	3+8	3, 21°(b)
1299	Turpentine	30	3	3, 31°(c)
1300	Turpentine substitute	33	3	3, 3°(b)
1300	Turpentine substitute	30	3	3, 31°(c)
1301	Vinyl acetate, inhibited	339	3	3, 3°(b)
1302	Vinyl ethyl ether inhibited	339	3	3, 2°(a)
1303	Vinylidene chloride, inhibited	339	3	3, 1°(a)
1304	Vinyl isobutyl ether, inhibited	339	3	3, 3°(b)
1305	Vinyltrichlorosilane, inhibited	X338	3+8	3, 21°(a)
1306	Wood preservatives, liquid	33	3	3, 5°(b),(c)
1306	Wood preservatives, liquid	30	3	3, 31°(c)
1307	Xylenes	33	3	3, 3°(b)
1307	Xylenes	30	3	3, 31°(c)
1308	Zirconium suspended in a flammable liquid	33	3	3, 1°(a), 2°(a),(b), 3°(b)
1308	Zirconium suspended in a flammable liquid	30	3	3, 31°(c)
1309	Aluminium powder, coated	40	4.1	4.1, 13°(b),(c)
1312	Borneol	40	4.1	4.1, 6°(c)
1313	Calcium resinate	40	4.1	4.1, 12°(c)
1314	Calcium resinate, fused	40	4.1	4.1, 12°(c)
1318	Cobalt resinate, precipitated	40	4.1	4.1, 12°(c)
1323	Ferrocenium	40	4.1	4.1, 13°(b)
1325	Flammable solid, organic, n.o.s.	40	4.1	4.1, 6°(b),(c)
1326	Hafnium powder, wetted	40	4.1	4.1, 13°(b)
1328	Hexamethylenetetramine	40	4.1	4.1, 6°(c)
1330	Manganese resinate	40	4.1	4.1, 12°(c)
1332	Metaldehyde	40	4.1	4.1, 6°(c)
1334	Naphthalene, crude or refined	40	4.1	4.1, 6°(c)

Substance Identification No. (Lower part) (a)	Name of substance (b)	Hazard Identification No. (Upper part) (c)	Label (d)	Class and item number (e)
1338	Phosphorus, amorphous	40	4.1	4.1, 11°(c)
1339	Phosphorus heptasulphide	40	4.1	4.1, 11°(b)
1340	Phosphorus pentasulphide	423	4.3	4.3, 20°(b)
1341	Phosphorus sesquisulphide	40	4.1	4.1, 11°(b)
1343	Phosphorus trisulphide	40	4.1	4.1, 11°(b)
1345	Rubber scrap or shoddy	40	4.1	4.1, 1°(b)
1346	Silicon powder, amorphous	40	4.1	4.1, 13°(c)
1350	Sulphur	40	4.1	4.1, 11°(c)
1352	Titanium powder, wetted	40	4.1	4.1, 13°(b)
1358	Zirconium powder, wetted	40	4.1	4.1, 13°(b)
1361	Carbon	40	4.2	4.2, 1°(b),(c)
1361	Carbon black	40	4.2	4.2, 1°(b),(c)
1362	Carbon, activated	40	4.2	4.2, 1°(c)
1363	Copra	40	4.2	4.2, 2°(c)
1364	Cotton waste, oily	40	4.2	4.2, 3°(c)
1365	Cotton, wet	40	4.2	4.2, 3°(c)
1366	Diethylzinc	X333	4.2+4.3	4.2, 31°(a)
1369	p-Nitrosodimethylaniline	40	4.2	4.2, 5°(b)
1370	Dimethylzinc	X333	4.2+4.3	4.2, 31°(a)
1373	Fibres, animal, vegetable or synthetic, n.o.s.	40	4.2	4.2, 3°(c)
1373	Fabrics, animal, vegetable or synthetic, n.o.s.	40	4.2	4.2, 3°(c)
1376	Iron oxide, spent	40	4.2	4.2, 16°(c)
1376	Iron sponge, spent	40	4.2	4.2, 16°(c)
1378	Metal catalyst, wetted	40	4.2	4.2, 12°(b)
1379	Paper, unsaturated oil treated	40	4.2	4.2, 3°(c)
1380	Pentaborane	333	4.2+6.1	4.2, 19°(a)
1381	Phosphorus, white or yellow, dry	46	4.2+6.1	4.2, 11°(a)
1382	Potassium sulphide, anhydrous	40	4.2	4.2, 13°(b)

Substance Identification No. (Lower part) (a)	Name of substance (b)	Hazard Identification No. (Upper part) (c)	Label (d)	Class and item number (e)
1382	Potassium sulphide, with less than 30% water of crystallisation	40	4.2	4.2, 13°(b)
1384	Sodium dithionite (Sodium hydrosulphite)	40	4.2	4.2, 13°(b)
1385	Sodium sulphide, anhydrous	40	4.2	4.2, 13°(b)
1385	Sodium sulphide, with less than 30% water of crystallisation	40	4.2	4.2, 13°(b)
1386	Seed cake	40	4.2	4.2, 2°(c)
1389	Alkali metal amalgam	X423	4.3	4.3, 11°(a)
1390	Alkali metal amides	423	4.3	4.3, 19°(b)
1391	Alkali metal dispersion	X423	4.3	4.3, 11°(a)
1391	Alkaline-earth metal dispersion	X423	4.3	4.3, 11°(a)
1392	Alkaline-earth metal amalgam	X423	4.3	4.3, 11°(a)
1393	Alkaline-earth metal alloy, n.o.s.	423	4.3	4.3, 11°(b)
1394	Aluminium carbide	423	4.3	4.3, 17°(b)
1395	Aluminium ferrosilicon powder	462	4.3+6.1	4.3, 15°(b)
1396	Aluminium powder, uncoated	423	4.3	4.3, 13°(b)
1398	Aluminium silicon powder, uncoated	423	4.3	4.3, 13°(c)
1400	Barium	423	4.3	4.3, 11°(b)
1401	Calcium	423	4.3	4.3, 11°(b)
1402	Calcium carbide	423	4.3	4.3, 17°(b)
1403	Calcium cyanamide	423	4.3	4.3, 19°(c)
1405	Calcium silicide	423	4.3	4.3, 12°(b),(c)
1407	Caesium	X423	4.3	4.3, 11°(a)
1408	Ferrosilicon	462	4.3+6.1	4.3, 15°(c)
1409	Metal hydrides, water-reactive, n.o.s.	423	4.3	4.3, 16°(b)
1415	Lithium	X423	4.3	4.3, 11°(a)
1417	Lithium silicon	423	4.3	4.3, 12°(b)
1418	Magnesium powder	423	4.3+4.2	4.3, 14°(b)
1418	Magnesium alloy powder	423	4.3+4.2	4.3, 14°(b)

Substance Identification No. (Lower part) (a)	Name of substance (b)	Hazard Identification No. (Upper part) (c)	Label (d)	Class and item number (e)
1420	Potassium metal alloys	X423	4.3	4.3, 11°(a)
1421	Alkali metal alloy, liquid, n.o.s.	X423	4.3	4.3, 11°(a)
1422	Potassium sodium alloys	X423	4.3	4.3, 11°(a)
1423	Rubidium	X423	4.3	4.3, 11°(a)
1428	Sodium	X423	4.3	4.3, 11°(a)
1431	Sodium methylate	48	4.2+8	4.2, 15°(b)
1435	Zinc ashes	423	4.3	4.3, 13°(c)
1436	Zinc powder	423	4.3+4.2	4.3, 14°(b),(c)
1436	Zinc dust	423	4.3+4.2	4.3, 14°(b),(c)
1437	Zirconium hydride	40	4.1	4.1, 14°(b)
1438	Aluminium nitrate	50	5.1	5.1, 22°(c)
1439	Ammonium dichromate	50	5.1	5.1, 27°(b)
1444	Ammonium persulphate	50	5.1	5.1, 18°(c)
1445	Barium chlorate	56	5.1+6.1	5.1, 29°(b)
1446	Barium nitrate	56	5.1+6.1	5.1, 29°(b)
1447	Barium perchlorate	56	5.1+6.1	5.1, 29°(b)
1448	Barium permanganate	56	5.1+6.1	5.1, 29°(b)
1449	Barium peroxide	56	5.1+6.1	5.1, 29°(b)
1450	Bromates, inorganic, n.o.s.	50	5.1	5.1, 16°(b)
1451	Caesium nitrate	50	5.1	5.1, 22°(c)
1452	Calcium chlorate	50	5.1	5.1, 11°(b)
1453	Calcium chlorite	50	5.1	5.1, 14°(b)
1454	Calcium nitrate	50	5.1	5.1, 22°(c)
1455	Calcium perchlorate	50	5.1	5.1, 13°(b)
1456	Calcium permanganate	50	5.1	5.1, 17°(b)
1457	Calcium peroxide	50	5.1	5.1, 25°(b)
1458	Chlorate and borate mixture	50	5.1	5.1, 11°(b)
1459	Chlorate and magnesium chloride mixture	50	5.1	5.1, 11°(b)
1461	Chlorates, inorganic, n.o.s.	50	5.1	5.1, 11°(b)

Substance Identification No. (Lower part) (a)	Name of substance (b)	Hazard Identification No. (Upper part) (c)	Label (d)	Class and item number (e)
1462	Chlorites, inorganic, n.o.s.	50	5.1	5.1, 14°(b)
1463	Chromium trioxide, anhydrous	58	5.1 + 8	5.1, 31°(b)
1465	Didymium nitrate	50	5.1	5.1, 22°(c)
1466	Ferric nitrate	50	5.1	5.1, 22°(c)
1467	Guanidine nitrate	50	5.1	5.1, 22°(c)
1469	Lead nitrate	56	5.1 + 6.1	5.1, 29°(b)
1470	Lead perchlorate	56	5.1 + 6.1	5.1, 29°(b)
1471	Lithium hypochlorite, mixture or dry	50	5.1	5.1, 15°(b)
1472	Lithium peroxide	50	5.1	5.1, 25°(b)
1473	Magnesium bromate	50	5.1	5.1, 16°(b)
1474	Magnesium nitrate	50	5.1	5.1, 22°(c)
1475	Magnesium perchlorate	50	5.1	5.1, 13°(b)
1476	Magnesium peroxide	50	5.1	5.1, 25°(b)
1477	Nitrates, inorganic, n.o.s.	50	5.1	5.1, 22°(b),(c)
1479	Oxidizing solid, n.o.s.	50	5.1	5.1, 27°(b),(c)
1481	Perchlorates, inorganic, n.o.s.	50	5.1	5.1, 13°(b)
1482	Permanganates, inorganic, n.o.s.	50	5.1	5.1, 17°(b)
1483	Peroxides, inorganic, n.o.s.	50	5.1	5.1, 25°(b)
1484	Potassium bromate	50	5.1	5.1, 16°(b)
1485	Potassium chlorate	50	5.1	5.1, 11°(b)
1486	Potassium nitrate	50	5.1	5.1, 22°(c)
1487	Potassium nitrate and sodium nitrite mixture	50	5.1	5.1, 24°(b)
1488	Potassium nitrite	50	5.1	5.1, 23°(b)
1489	Potassium perchlorate	50	5.1	5.1, 13°(b)
1490	Potassium permanganate	50	5.1	5.1, 17°(b)
1492	Potassium persulphate	50	5.1	5.1, 18°(c)
1493	Silver nitrate	50	5.1	5.1, 22°(b)
1494	Sodium bromate	50	5.1	5.1, 16°(b)
1495	Sodium chlorate	50	5.1	5.1, 11°(b)

Substance Identification No. (Lower part) (a)	Name of substance (b)	Hazard Identification No. (Upper part) (c)	Label (d)	Class and item number (e)
1496	Sodium chlorite	50	5.1	5.1, 14°(b)
1498	Sodium nitrate	50	5.1	5.1, 22°(c)
1499	Sodium nitrate and potassium nitrate mixture	50	5.1	5.1, 22°(c)
1500	Sodium nitrite	50	5.1	5.1, 23°(c)
1502	Sodium perchlorate	50	5.1	5.1, 13°(b)
1503	Sodium permanganate	50	5.1	5.1, 17°(b)
1505	Sodium persulphate	50	5.1	5.1, 18°(c)
1506	Strontium chlorate	50	5.1	5.1, 11°(b)
1507	Strontium nitrate	50	5.1	5.1, 22°(c)
1508	Strontium perchlorate	50	5.1	5.1, 13°(b)
1509	Strontium peroxide	50	5.1	5.1, 25°(b)
1510	Tetranitromethane	559	5.1+6.1	5.1, 2°(a)
1511	Urea hydrogen peroxide	58	5.1+8	5.1, 31°(c)
1512	Zinc ammonium nitrite	50	5.1	5.1, 23°(b)
1513	Zinc chlorate	50	5.1	5.1, 11°(b)
1514	Zinc nitrate	50	5.1	5.1, 22°(b)
1515	Zinc permanganate	50	5.1	5.1, 17°(b)
1516	Zinc peroxide	50	5.1	5.1, 25°(b)
1541	Acetone cyanohydrin, stablized	66	6.1	6.1, 12°(a)
1544	Alkaloids or alcaloid salts, solid, n.o.s.	66	6.1	6.1, 90°(a)
1544	Alkaloids or alcaloid salts, solid, n.o.s.	60	6.1	6.1, 90°(b),(c)
1545	Allyl isothiocyanate, inhibited	639	6.1+3	6.1, 20°(b)
1546	Ammonium arsenate	60	6.1	6.1, 51°(b)
1547	Aniline	60	6.1	6.1, 12°(b)
1548	Aniline hydrochloride	60	6.1	6.1, 12°(c)
1549	Antimony compound, inorganic, solid, n.o.s.	60	6.1	6.1, 59°(c)
1550	Antimony lactate	60	6.1	6.1, 59°(c)

Substance Identification No. (Lower part) (a)	Name of substance (b)	Hazard Identification No. (Upper part) (c)	Label (d)	Class and item number (e)
1551	Antimony potassium tartrate	60	6.1	6.1, 59°(c)
1553	Arsenic acid, liquid	66	6.1	6.1, 51°(a)
1554	Arsenic acid, solid	60	6.1	6.1, 51°(b)
1555	Arsenic bromide	60	6.1	6.1, 51°(b)
1556	Arsenic compound, liquid, n.o.s.	66	6.1	6.1, 51°(a)
1556	Arsenic compound, liquid, n.o.s.	60	6.1	6.1, 51°(b),(c)
1557	Arsenic compound, solid, n.o.s.	66	6.1	6.1, 51°(a)
1557	Arsenic compound, solid, n.o.s.	60	6.1	6.1, 51°(b),(c)
1558	Arsenic	60	6.1	6.1, 51°(b)
1559	Arsenic pentoxide	60	6.1	6.1, 51°(b)
1560	Arsenic trichloride	66	6.1	6.1, 51°(a)
1561	Arsenic trioxide	60	6.1	6.1, 51°(b)
1562	Arsenical dust	60	6.1	6.1, 51°(b)
1564	Barium compound, n.o.s.	60	6.1	6.1, 60°(b),(c)
1566	Beryllium compound, n.o.s.	60	6.1	6.1, 54°(b)2.,(c)
1567	Beryllium powder	64	6.1+4.1	6.1, 54°(b)1.
1569	Bromoacetone	63	6.1+3	6.1, 16°(b)
1570	Brucine	66	6.1	6.1, 90°(a)
1572	Cacodylic acid	60	6.1	6.1, 51°(b)
1573	Calcium arsenate	60	6.1	6.1, 51°(b)
1574	Calcium arsenate and calcium arsenite mixture, solid	60	6.1	6.1, 51°(b)
1577	Chlorodinitrobenzenes	60	6.1	6.1, 12°(b)
1578	Chloronitrobenzenes	60	6.1	6.1, 12°(b)
1579	4-Chloro-o-toluidine hydrochloride	60	6.1	6.1, 17°(c)
1580	Chloropicrin	66	6.1	6.1, 17°(a)
1581	Mixtures of methyl bromide and chloropicrin (liquefied gas)	26	6.1	2, 4°(at)
1582	Mixtures of methyl chloride and chloropicrin (liquefied gas)	236	3+6.1	2, 4°(bt)

Substance Identification No. (Lower part) (a)	Name of substance (b)	Hazard Identification No. (Upper part) (c)	Label (d)	Class and item number (e)
1583	Chloropicrin mixture, n.o.s.	66	6.1	6.1, 17°(a)
1583	Chloropicrin mixture, n.o.s.	60	6.1	6.1, 17°(b),(c)
1585	Copper acetoarsenite	60	6.1	6.1, 51°(b)
1586	Copper arsenite	60	6.1	6.1, 51°(b)
1587	Copper cyanide	60	6.1	6.1, 41°(b)
1588	Cyanides, inorganic, solid, n.o.s.	66	6.1	6.1, 41°(a)
1588	Cyanides, inorganic, solid, n.o.s.	60	6.1	6.1, 41°(b),(c)
1590	Dichloroanilines	60	6.1	6.1, 12°(b)
1591	o-Dichlorobenzene	60	6.1	6.1, 15°(c)
1593	Dichloromethane	60	6.1	6.1, 15°(c)
1594	Diethyl sulphate	60	6.1	6.1, 14°(b)
1595	Dimethyl sulphate	668	6.1+8	6.1, 27°(a)
1596	Dinitroanilines	60	6.1	6.1, 12°(b)
1597	Dinitrobenzenes	60	6.1	6.1, 12°(b)
1598	Dinitro-o-cresol	60	6.1	6.1, 12°(b)
1599	Dinitrophenol solution	60	6.1	6.1, 12°(b),(c)
1600	Dinitrotoluenes, molten	60	6.1	6.1, 24°(b)1.
1601	Disinfectant, solid, toxic, n.o.s.	66	6.1	6.1, 25°(a)
1601	Disinfectant, solid, toxic, n.o.s.	60	6.1	6.1, 25°(b),(c)
1602	Dye, liquid, toxic, n.o.s.	66	6.1	6.1, 25°(a)
1602	Dye, liquid, toxic, n.o.s.	60	6.1	6.1, 25°(b),(c)
1602	Dye intermediate, liquid, toxic, n.o.s.	66	6.1	6.1, 25°(a)
1602	Dye intermediate, liquid, toxic, n.o.s.	60	6.1	6.1, 25°(b),(c)
1603	Ethyl bromoacetate	63	6.1+3	6.1, 16°(b)
1604	Ethylenediamine	83	8+3	8, 54°(b)
1605	Ethylene dibromide	66	6.1	6.1, 15°(a)
1606	Ferric arsenate	60	6.1	6.1, 51°(b)
1607	Ferric arsenite	60	6.1	6.1, 51°(b)
1608	Ferrous arsenate	60	6.1	6.1, 51°(b)

Substance Identification No. (Lower part) (a)	Name of substance (b)	Hazard Identification No. (Upper part) (c)	Label (d)	Class and item number (e)
1610	Halogenated irritating liquid, n.o.s.	66	6.1	6.1, 17°(a)
1610	Halogenated irritating liquid, n.o.s.	60	6.1	6.1, 17°(b),(c)
1611	Hexaethyl tetraphosphate	60	6.1	6.1, 23°(b)
1613	Hydrogen cyanide, aqueous solution (Hydrocyanic acid)	663	6.1+3	6.1, 2°
1616	Lead acetate	60	6.1	6.1, 62°(c)
1617	Lead arsenates	60	6.1	6.1, 51°(b)
1618	Lead arsenites	60	6.1	6.1, 51°(b)
1620	Lead cyanide	60	6.1	6.1, 41°(b)
1621	London purple	60	6.1	6.1, 51°(b)
1622	Magnesium arsenate	60	6.1	6.1, 51°(b)
1623	Mercuric arsenate	60	6.1	6.1, 51°(b)
1624	Mercuric chloride	60	6.1	6.1, 52°(b)
1625	Mercuric nitrate	60	6.1	6.1, 52°(b)
1627	Mercurous nitrate	60	6.1	6.1, 52°(b)
1629	Mercury acetate	60	6.1	6.1, 52°(b)
1630	Mercury ammonium chloride	60	6.1	6.1, 52°(b)
1631	Mercury benzoate	60	6.1	6.1, 52°(b)
1634	Mercury bromides	60	6.1	6.1, 52°(b)
1636	Mercury cyanide	60	6.1	6.1, 41°(b)
1637	Mercury gluconate	60	6.1	6.1, 52°(b)
1638	Mercury iodide	60	6.1	6.1, 52°(b)
1639	Mercury nucleate	60	6.1	6.1, 52°(b)
1640	Mercury oleate	60	6.1	6.1, 52°(b)
1641	Mercury oxide	60	6.1	6.1, 52°(b)
1642	Mercury oxycyanide, desensitized	60	6.1	6.1, 41°(b)
1643	Mercury potassium iodide	60	6.1	6.1, 52°(b)
1644	Mercury salicylate	60	6.1	6.1, 52°(b)
1645	Mercury sulphate	60	6.1	6.1, 52°(b)
1646	Mercury thiocyanate	60	6.1	6.1, 52°(b)

Substance Identification No. (Lower part) (a)	Name of substance (b)	Hazard Identification No. (Upper part) (c)	Label (d)	Class and item number (e)
1647	Mixtures of methyl bromide and ethylene bromide	236	3+6.1	2, 4°(bt)
1647	Methyl bromide and ethylene dibromide mixture, liquid	66	6.1	6.1, 15°(a)
1648	Acetonitrile (methyl cyanide)	33	3	3, 3°(b)
1649	Motor fuel anti-knock mixture	66	6.1	6.1, 31°(a)
1650	beta-Naphthylamine	60	6.1	6.1, 12°(b)
1651	Naphthylthiourea	60	6.1	6.1, 21°(b)
1652	Naphthylurea	60	6.1	6.1, 12°(b)
1653	Nickel cyanide	60	6.1	6.1, 41°(b)
1654	Nicotine	60	6.1	6.1, 90°(b)
1655	Nicotine compound or nicotine preparation, solid, n.o.s.	66	6.1	6.1, 90°(a)
1655	Nicotine compound or nicotine preparation, solid, n.o.s.	60	6.1	6.1, 90°(b),(c)
1656	Nicotine hydrochloride or nicotine hydrochloride solution	60	6.1	6.1, 90°(b)
1657	Nicotine salicylate	60	6.1	6.1, 90°(b)
1658	Nicotine sulphate, solid	60	6.1	6.1, 90°(b)
1658	Nicotine sulphate, solution	60	6.1	6.1, 90°(b)
1659	Nicotine tartrate	60	6.1	6.1, 90°(b)
1661	Nitroanilines (o-,m-,p-)	60	6.1	6.1, 12°(b)
1662	Nitrobenzene	60	6.1	6.1, 12°(b)
1663	Nitrophenols (o-,m-,p-)	60	6.1	6.1, 12°(c)
1664	Nitrotoluenes (o-,m-,p-)	60	6.1	6.1, 12°(b)
1665	Nitroxylens (o-,m-,p-)	60	6.1	6.1, 12°(b)
1669	Pentachloroethane	60	6.1	6.1, 15°(b)
1670	Perchloromethyl mercaptan	66	6.1	6.1, 17°(a)
1671	Phenol, solid	60	6.1	6.1, 14°(b)
1672	Phenylcarbylamine chloride	66	6.1	6.1, 17°(a)
1673	Phenylenediamines (o-,m-,p-)	60	6.1	6.1, 12°(c)

Substance Identification No. (Lower part) (a)	Name of substance (b)	Hazard Identification No. (Upper part) (c)	Label (d)	Class and item number (e)
1674	Phenylmercuric acetate	60	6.1	6.1, 33°(b)
1677	Potassium arsenate	60	6.1	6.1, 51°(b)
1678	Potassium arsenite	60	6.1	6.1, 51°(b)
1679	Potassium cuprocyanide	60	6.1	6.1, 41°(b)
1683	Silver arsenite	60	6.1	6.1, 51°(b)
1684	Silver cyanide	60	6.1	6.1, 41°(b)
1685	Sodium arsenate	60	6.1	6.1, 51°(b)
1686	Sodium arsenite, aqueous solution	60	6.1	6.1, 51°(b),(c)
1688	Sodium cacodylate	60	6.1	6.1, 51°(b)
1690	Sodium fluoride	60	6.1	6.1, 63°(c)
1691	Strontium arsenite	60	6.1	6.1, 51°(b)
1692	Strychnine or strychnine salts	66	6.1	6.1, 90°(a)
1693	Tear gas substance, liquid or solid, n.o.s.	66	6.1	6.1, 25°(a)
1693	Tear gas substance, liquid or solid, n.o.s.	60	6.1	6.1, 25°(b)
1694	Bromobenzyl cyanides	66	6.1	6.1, 17°(a)
1695	Chloroacetone, stabilized	60	6.1	6.1, 17°(b)
1697	Chloroacetophenone	60	6.1	6.1, 17°(b)
1698	Diphenylamine chloroarsine	66	6.1	6.1, 34°(a)
1699	Diphenylchloroarsine	66	6.1	6.1, 34°(a)
1701	Xylyl bromide	60	6.1	6.1, 15°(b)
1702	1,1,2,2-Tetrachloroethane	60	6.1	6.1, 15°(b)
1704	Tetraethyl dithiopyrophosphate	60	6.1	6.1, 23°(b)
1707	Thallium compound, n.o.s.	60	6.1	6.1, 53°(b)
1708	Toluidines	60	6.1	6.1, 12°(b)
1709	2,4-Toluylenediamine	60	6.1	6.1, 12°(c)
1710	Trichloroethylene	60	6.1	6.1, 15°(c)
1711	Xylidines	60	6.1	6.1, 12°(b)
1712	Zinc arsenate	60	6.1	6.1, 51°(b)

Substance Identification No. (Lower part) (a)	Name of substance (b)	Hazard Identification No. (Upper part) (c)	Label (d)	Class and item number (e)
1712	Zinc arsenate and zinc arsenite mixture	60	6.1	6.1, 51°(b)
1712	Zinc arsenite	60	6.1	6.1, 51°(b)
1713	Zinc cyanide	66	6.1	6.1, 41°(a)
1715	Acetic anhydride	83	8+3	8, 32°(b)2.
1716	Acetyl bromide	80	8	8, 35°(b)1.
1717	Acetyl chloride	X338	3+8	3, 25°(b)
1718	Butyl acid phosphate	80	8	8, 38°(c)
1719	Caustic alkali liquid, n.o.s.	80	8	8, 42°(b),(c)
1722	Allyl chloroformate	668	6.1+8+3	6.1, 28°(a)
1723	Allyl iodide	338	3+8	3, 25°(b)
1724	Allyltrimethylchlorosilane, stabilized	X839	8+3	8, 37°(h)
1725	Aluminium bromide, anhydrous	80	8	8, 11°(b)
1726	Aluminium chloride, anhydrous	80	8	8, 11°(b)
1727	Ammonium hydrogendifluoride, solid	80	8	8, 9°(h)
1728	Amyltrimethylchlorosilane	X80	8	8, 36°(b)
1729	Anisoyl chloride	80	8	8, 35°(b)1.
1730	Antimony pentachloride, liquid	80	8	8, 12°(b)
1731	Antimony pentachloride solution	80	8	8, 12°(b),(c)
1732	Antimony pentafluoride	86	8+6.1	8, 10°(b)
1733	Antimony trichloride	80	8	8, 11°(b)
1736	Benzoyl chloride	80	8	8, 35°(b)1.
1737	Benzyl bromide	68	6.1+8	6.1, 27°(b)
1738	Benzyl chloride	68	6.1+8	6.1, 27°(b)
1739	Benzyl chloroformate	88	8	8, 64°(a)
1740	Hydrogendifluorides, n.o.s.	80	8	8, 9°(b),(c)
1742	Boron trifluoride acetic acid complex	80	8	8, 33°(b)
1743	Boron trifluoride propionic acid complex	80	8	8, 33°(b)
1744	Bromine or bromine solution	886	8+6.1	8, 14°

Substance Identification No. (Lower part) (a)	Name of substance (b)	Hazard Identification No. (Upper part) (c)	Label (d)	Class and item number (e)
1745	Bromine pentafluoride	568	5.1+6.1+8	5.1, 5°
1746	Bromine trifluoride	568	5.1+6.1+8	5.1, 5°
1747	Butyltrichlorosilane	X83	8+3	8, 37°(b)
1748	Calcium hypochlorite, dry	50	5.1	5.1, 15°(b)
1748	Calcium hypochlorite mixture, dry	50	5.1	5.1, 15°(b)
1750	Chloroacetic acid solution	68	6.1+8	6.1, 27°(b)
1751	Chloroacetic acid, solid	68	6.1+8	6.1, 27°(b)
1752	Chloroacetyl chloride	668	6.1+8	6.1, 27°(a)
1753	Chlorophenyltrichlorosilane	X80	8	8, 36°(b)
1754	Chlorosulphonic acid	88	8	8, 12°(a)
1755	Chromic acid solution	80	8	8, 17°(b),(c)
1756	Chromic fluoride, solid	80	8	8, 9°(b)
1757	Chromic fluoride solution	80	8	8, 8°(b),(c)
1758	Chromium oxychloride	88	8	8, 12°(a)
1759	Corrosive solid, n.o.s.	88	8	8, 65°(a)
1759	Corrosive solid, n.o.s.	80	8	8, 65°(b),(c)
1760	Corrosive liquid, n.o.s.	88	8	8, 66°(a)
1760	Corrosive liquid, n.o.s.	80	8	8, 66°(b),(c)
1761	Cupriethylenediamine solution	86	8+6.1	8, 53°(b),(c)
1762	Cyclohexenyltrichlorosilane	X80	8	8, 36°(b)
1763	Cyclohexyltrichlorosilane	X80	8	8, 36°(b)
1764	Dichloroacetic acid	80	8	8, 32°(b)1.
1765	Dichloroacetyl chloride	X80	8	8, 35°(b)1.
1766	Dichlorophenyltrichlorosilane	X80	8	8, 36°(b)
1767	Diethyldichlorosilane	X83	8+3	8, 37°(b)
1768	Difluorophosphoric acid, anhydrous	80	8	8, 8°(b)
1769	Diphenyldichlorosilane	X80	8	8, 36°(b)
1770	Diphenylmethyl bromide	80	8	8, 65°(b)
1771	Dodecyltrichlorosilane	X80	8	8, 36°(b)

Substance Identification No. (Lower part) (a)	Name of substance (b)	Hazard Identification No. (Upper part) (c)	Label (d)	Class and item number (e)
1773	Ferric chloride, anhydrous	80	8	8, 11°(c)
1775	Fluoroboric acid	80	8	8, 8°(b)
1776	Fluorophosphoric acid, anhydrous	80	8	8, 8°(b)
1777	Fluorosulphonic acid	88	8	8, 8°(a)
1778	Fluorosilicic acid	80	8	8, 8°(b)
1779	Formic acid	80	8	8, 32°(b)1.
1780	Fumaryl chloride	80	8	8, 35°(b)1.
1781	Hexadecyltrichlorosilane	X80	8	8, 36°(b)
1782	Hexafluorophosphoric acid	80	8	8, 8°(b)
1783	Hexamethylenediamine solution	80	8	8, 53°(b),(c)
1784	Hexyltrichlorosilane	X80	8	8, 36°(b)
1786	Hydrofluoric acid and sulphuric acid mixture	886	8+6.1	8, 7°(a)
1787	Hydriodic acid	80	8	8, 5°(b),(c)
1788	Hydrobromic acid	80	8	8, 5°(b),(c)
1789	Hydrochloric acid	80	8	8, 5°(b),(c)
1790	Hydrofluoric acid with more than 85% hydrogen fluoride	886	8+6.1	8, 6°
1790	Hydrofluoric acid with more than 60% but not more than 85% hydrogen fluoride	886	8+6.1	8, 7°(a)
1790	Hydrofluoric acid with not more than 60% hydrogen fluoride	86	8+6.1	8, 7°(b)
1791	Hypochlorite solution with between 5 and 16% active chlorine	80	8	8, 61°(b)
1791	Hypochlorite solution with more than 5% but less than 16% available chlorine	80	8	8, 61°(c)
1792	Iodine monochloride	80	8	8, 12°(b)
1793	Isopropyl acid phosphate	80	8	8, 38°(c)
1794	Lead sulphate	80	8	8, 1°(b)
1796	Nitrating acid mixture with more than 50% nitric acid	885	8+05	8, 3°(a)

Substance Identification No. (Lower part) (a)	Name of substance (b)	Hazard Identification No. (Upper part) (c)	Label (d)	Class and item number (e)
1796	Nitrating acid mixture with not more than 50% nitric acid	80	8	8, 3°(b)
1799	Nonyltrichlorosilane	X80	8	8, 36°(b)
1800	Octadecyltrichlorosilane	X80	8	8, 36°(b)
1801	Octyltrichlorosilane	X80	8	8, 36°(b)
1802	Perchloric acid	85	8+05	8, 4°(b)
1803	Phenolsulphonic acid, liquid	80	8	8, 34°(b)
1804	Phenyltrichlorosilane	X80	8	8, 36°(b)
1805	Phosphoric acid	80	8	8, 17°(c)
1806	Phosphorus pentachloride	80	8	8, 11°(b)
1807	Phosphorus pentoxide	80	8	8, 16°(b)
1808	Phosphorus tribromide	80	8	8, 12°(b)
1809	Phosphorus trichloride	886	8+6.1	8, 12°(a)
1810	Phosphorus oxychloride	80	8	8, 12°(b)
1811	Potassium hydrogendifluoride	86	8+6.1	8, 9°(b)
1812	Potassium fluoride	60	6.1	6.1, 63°(c)
1813	Potassium hydroxide, solid	80	8	8, 41°(b)
1814	Potassium hydroxide solution	80	8	8, 42°(b),(c)
1815	Propionyl chloride	338	3+8	3, 25°(b)
1816	Propyltrichlorosilane	X83	8+3	8, 37°(b)
1817	Pyrosulphuryl chloride	80	8	8, 12°(b)
1818	Silicon tetrachloride	80	8	8, 12°(b)
1819	Sodium aluminate solution	80	8	8, 42°(b),(c)
1823	Sodium hydroxide, solid	80	8	8, 41°(b)
1824	Sodium hydroxide solution	80	8	8, 42°(b),(c)
1825	Sodium monoxide	80	8	8, 41°(b)
1826	Nitrating acid mixture, spent with not more than 50% nitric acid	80	8	8, 3°(b)
1826	Nitrating acid mixture, spent with more than 50% nitric acid	885	8+05	8, 3°(a)

Substance Identification No. (Lower part) (a)	Name of substance (b)	Hazard Identification No. (Upper part) (c)	Label (d)	Class and item number (e)
1827	Stannic chloride, anhydrous	80	8	8, 12°(b)
1828	Sulphur chlorides	X88	8	8, 12°(a)
1829	Sulphur trioxide, inhibited	X88	8	8, 1°(a)
1830	Sulphuric acid, with more than 51 % acid	80	8	8, 1°(b)
1831	Sulphuric acid, fuming	X886	8+6.1	8, 1°(a)
1832	Sulphuric acid, spent	80	8	8, 1°(b)
1833	Sulphurous acid	80	8	8, 1°(b)
1834	Sulphuryl chloride	X88	8	8, 12°(a)
1835	Tetramethylammonium hydroxide	80	8	8, 51°(b)
1836	Thionyl chloride	X88	8	8, 12°(a)
1837	Thiophosphoryl chloride	80	8	8, 12°(b)
1838	Titanium tetrachloride	80	8	8, 12°(b)
1839	Trichloroacetic acid	80	8	8, 31°(b)
1840	Zinc chloride solution	80	8	8, 5°(c)
1843	Ammonium dinitro-o-cresolate	60	6.1	6.1, 12°(b)
1846	Carbon tetrachloride	60	6.1	6.1, 15°(b)
1847	Potassium sulphide, hydrated	80	8	8, 45°(b)1.
1848	Propionic acid	80	8	8, 32°(c)
1849	Sodium sulphide, hydrated	80	8	8, 45°(b)1.
1851	Medicine, liquid, toxic, n.o.s.	60	6.1	6.1, 90°(b),(c)
1858	Hexafluoropropylene (R 1216)	26	6.1	2, 3°(at)
1860	Vinyl fluoride	239	3	2, 5°(c)
1862	Ethyl crotonate	33	3	3, 3°(b)
1863	Fuel, aviation, turbine engine	33	3	3, 1°(a), 2°(a),(b), 3°(b)
1863	Fuel, aviation, turbine engine	30	3	3, 31°(c)
1866	Resin solution	33	3	3, 5°(a),(b),(c)
1866	Resin solution	30	3	3, 31°(c)
1868	Decaborane	46	4.1+6.1	4.1, 16°(b)

Substance Identification No. (Lower part) (a)	Name of substance (b)	Hazard Identification No. (Upper part) (c)	Label (d)	Class and item number (e)
1869	Magnesium	40	4.1	4.1, 13°(c)
1869	Magnesium alloys	40	4.1	4.1, 13°(c)
1871	Titanium hydride	40	4.1	4.1, 14°(b)
1872	Lead dioxide	56	5.1+6.1	5.1, 29°(c)
1873	Perchloric acid, with more than 50% but not more than 72% acid, by mass	558	5.1+8	5.1, 3°(a)
1884	Barium oxide	60	6.1	6.1, 60°(c)
1885	Benzidine	60	6.1	6.1, 12°(b)
1886	Benzylidene chloride	60	6.1	6.1, 15°(b)
1887	Bromochloromethane	60	6.1	6.1, 15°(c)
1888	Chloroform	60	6.1	6.1, 15°(c)
1889	Cyanogen bromide	668	6.1+8	6.1, 27°(a)
1891	Ethyl bromide	60	6.1	6.1, 15°(b)
1892	Ethylchloroarsine	66	6.1	6.1, 34°(a)
1894	Phenylmercuric hydroxide	60	6.1	6.1, 33°(b)
1895	Phenylmercuric nitrate	60	6.1	6.1, 33°(b)
1897	Tetrachloroethylene	60	6.1	6.1, 15°(c)
1898	Acetyl iodide	80	8	8, 35°(b)1.
1902	Diisooctyl acid phosphate	80	8	8, 38°(c)
1903	Disinfectant, liquid, corrosive, n.o.s.	88	8	8, 66°(a)
1903	Disinfectant, liquid, corrosive, n.o.s.	80	8	8, 66°(b),(c)
1906	Sludge acid	80	8	8, 1°(b)
1907	Soda lime	80	8	8, 41°(c)
1908	Chlorite solution with not less than 16% available chlorine	80	8	8, 61°(b),(c)
1912	Mixtures of methyl chloride and methylene chloride (liquefied gas)	236	3+6.1	2, 4°(bt)
1913	Neon, deeply-refrigerated	22	2	2, 7°(a)

Substance Identification No. (Lower part) (a)	Name of substance (b)	Hazard Identification No. (Upper part) (c)	Label (d)	Class and item number (e)
1914	Butyl propionate	30	3	3, 31°(c)
1915	Cyclohexanone	30	3	3, 31°(c)
1916	2,2'-Dichlorodiethyl ether	63	6.1+3	6.1, 16°(b)
1917	Ethyl acrylate, inhibited	339	3	3, 3°(b)
1918	Isopropylbenzene (Cumene)	30	3	3, 31°(c)
1919	Methyl acrylate, inhibited	339	3	3, 3°(b)
1920	Nonanes	30	3	3, 31°(c)
1921	Propyleneimine, inhibited	336	3+6.1	3, 12°
1922	Pyrrolidine	338	3+8	3, 23°(b)
1923	Calcium dithionite	40	4.2	4.2, 13°(b)
1928	Methyl magnesium bromide in ethyl ether	X323	4.3+3	4.3, 3°(a)
1929	Potassium dithionite	40	4.2	4.2, 13°(b)
1932	Zirconium scrap	40	4.2	4.2, 12°(c)
1935	Cyanide solution, n.o.s.	66	6.1	6.1, 41°(a)
1935	Cyanide solution, n.o.s.	60	6.1	6.1, 41°(b),(c)
1938	Bromoacetic acid	80	8	8, 31°(b)
1939	Phosphorus oxybromide	80	8	8, 11°(b)
1940	Thioglycolic acid	80	8	8, 32°(b)1.
1942	Ammonium nitrate	50	5.1	5.1, 21°(c)
1951	Argon, deeply-refrigerated	22	2	2, 7°(a)
1952	Carbon dioxide containing not more than 35% ethylene oxide by mass	239	3	2, 6°(c)
1957	Deuterium	23	3	2, 1°(b)
1958	1,2-Dichloro-1,1,2,2-tetra- fluoroethane (R114)	20	2	2, 3°(a)
1959	1,1-Difluoroethylene (Vinylidene fluoride)	239	3	2, 5°(c)
1961	Ethane, deeply-refrigerated	223	3	2, 7°(b)
1962	Ethylene	23	3	2, 5°(b)
1963	Helium, deeply-refrigerated	22	2	2, 7°(a)

Substance Identification No. (Lower part) (a)	Name of substance (b)	Hazard Identification No. (Upper part) (c)	Label (d)	Class and item number (e)
1965	Mixtures of hydrocarbons (liquefied gases) (Mixtures A, AO, A1, B and C)	23	3	2, 4°(b)
1966	Hydrogen, deeply-refrigerated	223	3	2, 7°(b)
1969	Isobutane	23	3	2, 3°(b)
1970	Krypton, deeply-refrigerated	22	2	2, 7°(a)
1971	Methane, compressed	23	3	2, 1°(b)
1971	Natural gas, compressed	23	3	2, 2°(b)
1972	Natural gas, deeply-refrigerated	223	3	2, 8°(b)
1972	Methane, deeply-refrigerated	223	3	2, 7°(b)
1973	Gas mixture R 502	20	2	2, 4°(a)
1974	Bromochlorodifluoromethane (R 12B1)	20	2	2, 3°(a)
1976	Octafluorocyclobutane (RC 318)	20	2	2, 3°(a)
1977	Nitrogen, deeply-refrigerated	22	2	2, 7°(a)
1978	Propane, technically-pure	23	3	2, 3°(b)
1982	Tetrafluoromethane (R 14)	20	2	2, 1°(a)
1983	1-Chloro-2,2,2-trifluoroethane (R 133a)	20	2	2, 3°(a)
1984	Trifluoromethane (R 23)	20	2	2, 5°(a)
1986	Alcohols, flammable, toxic, n.o.s.	336	3+6.1	3, 17°(a),(b)
1986	Alcohols, flammable, toxic, n.o.s.	36	3+6.1	3, 32°(c)
1987	Alcohols, flammable, n.o.s.	33	3	3, 2°(b), 3°(b)
1987	Alcohols, flammable, n.o.s.	30	3	3, 31°(c)
1988	Aldehydes, flammable, toxic, n.o.s.	336	3+6.1	3, 17°(a),(b)
1988	Aldehydes, flammable, toxic, n.o.s.	36	3+6.1	3, 32°(c)
1989	Aldehydes, flammable, n.o.s.	33	3	3, 2°(b), 3°(b)
1989	Aldehydes, flammable, n.o.s.	30	3	3, 31°(c)
1991	Chloroprene, inhibited	336	3+6.1	3, 16°(a)
1992	Flammable liquid, toxic, n.o.s.	336	3+6.1	3, 19°(a),(b)
1992	Flammable liquid, toxic, n.o.s.	36	3+6.1	3, 32°(c)

Substance Identification No. (Lower part) (a)	Name of substance (b)	Hazard Identification No. (Upper part) (c)	Label (d)	Class and item number (e)
1993	Flammable liquid, n.o.s.	33	3	3, 1°(a), 2°(a),(b), 3°(b), 5°(c)
1993	Flammable liquid, n.o.s.	30	3	3, 31°(c)
1994	Iron pentacarbonyl	663	6.1+3	6.1, 3°
1999	Tars, liquid	33	3	3, 5°(b),(c)
1999	Tars, liquid	30	3	3, 31°(c)
2001	Cobalt naphthenates, powder	40	4.1	4.1, 12°(c)
2003	Metal alkyls, n.o.s. or metal aryls, n.o.s.	X333	4.2+4.3	4.2, 31°(a)
2004	Magnesium diamide	40	4.2	4.2, 16°(b)
2005	Magnesium diphenyl	X333	4.2+4.3	4.2, 31°(a)
2008	Zirconium powder, dry	40	4.2	4.2, 12°(b),(c)
2014	Hydrogen peroxide, aqueous solution	58	5.1+8	5.1, 1°(b)
2015	Hydrogen peroxide, stabilized	559	5.1+8	5.1, 1°(a)
2015	Hydrogen peroxide, aqueous solution, stabilized	559	5.1+8	5.1, 1°(a)
2018	Chloroanilines, solid	60	6.1	6.1, 12°(b)
2019	Chloroanilines, liquid	60	6.1	6.1, 12°(b)
2020	Chlorophenols, solid	60	6.1	6.1, 17°(c)
2021	Chlorophenols, liquid	60	6.1	6.1, 17°(c)
2022	Cresylic acid	68	6.1+8	6.1, 27°(b)
2023	Epichlorohydrin	63	6.1+3	6.1, 16°(b)
2024	Mercury compound, liquid, n.o.s.	66	6.1	6.1, 52°(a)
2024	Mercury compound, liquid, n.o.s.	60	6.1	6.1, 52°(b),(c)
2025	Mercury compound, solid, n.o.s.	66	6.1	6.1, 52°(a)
2025	Mercury compound, solid, n.o.s.	60	6.1	6.1, 52°(b),(c)
2026	Phenylmercuric compound, n.o.s.	66	6.1	6.1, 33°(a)
2026	Phenylmercuric compound, n.o.s.	60	6.1	6.1, 33°(b),(c)
2027	Sodium arsenite, solid	60	6.1	6.1, 51°(b)
2030	Hydrazine hydrate	86	8+6.1	8, 44°(b)

Substance Identification No. (Lower part) (a)	Name of substance (b)	Hazard Identification No. (Upper part) (c)	Label (d)	Class and item number (e)
2030	Hydrazine, aqueous solution	86	8+6.1	8, 44°(b)
2031	Nitric acid containing less than 70% pure acid	80	8	8, 2°(b)
2031	Nitric acid containing more than 70% pure acid	88	8	8, 2°(a)1.
2032	Nitric acid, red fuming	856	8+05+6.1	8, 2°(a)2.
2033	Potassium monoxide	80	8	8, 41°(b)
2035	1,1,1-Trifluoroethane	23	3	2, 3°(b)
2036	Xenon	20	2	2, 5°(a)
2038	Dinitrotoluenes	60	6.1	6.1, 12°(b)
2045	Isobutyraldehyde	33	3	3, 3°(b)
2046	Cymenes (o-,m-,p-) (Methyl isopropyl benzenes)	30	3	3, 31°(c)
2047	Dichloropropenes	33	3	3, 3°(b)
2047	Dichloropropenes	30	3	3, 31°(c)
2048	Dicyclopentadiene	30	3	3, 31°(c)
2049	Diethylbenzenes (o-,m-,p-)	30	3	3, 31°(c)
2050	Diisobutylene, isomeric compounds	33	3	3, 3°(b)
2051	2-Dimethylaminoethanol	83	8+3	8, 54°(b)
2052	Dipentene	30	3	3, 31°(c)
2053	Methyl isobutyl carbinol	30	3	3, 31°(c)
2054	Morpholine	30	3	3, 31°(c)
2055	Styrene monomer, inhibited (Vinylbenzene)	39	3	3, 31°(c)
2056	Tetrahydrofuran	33	3	3, 3°(b)
2057	Tripropylene	33	3	3, 3°(b)
2057	Tripropylene	30	3	3, 31°(c)
2058	Valeraldehyde	33	3	3, 3°(b)
2059	Nitrocellulose solution, flammable	33	3	3, 4°(a),(b)
2059	Nitrocellulose solution, flammable	30	3	3, 34°(c)

Substance Identification No. (Lower part) (a)	Name of substance (b)	Hazard Identification No. (Upper part) (c)	Label (d)	Class and item number (e)
2067	Ammonium nitrate fertilizers, type A1	50	5.1	5.1, 21°(c)
2068	Ammonium nitrate fertilizers, type A2	50	5.1	5.1, 21°(c)
2069	Ammonium nitrate fertilizers, type A3	50	5.1	5.1, 21°(c)
2070	Ammonium nitrate fertilizers, type A4	50	5.1	5.1, 21°(c)
2073	Ammonia dissolved in water with more than 35% but not more than 40% ammonia	268	6.1	2, 9°(at)
2073	Ammonia dissolved in water with more than 40% but not more than 50% ammonia	268	6.1	2, 9°(at)
2074	Acrylamide	60	6.1	6.1, 12°(c)
2075	Chloral, anhydrous, inhibited	60	6.1	6.1, 17°(h)
2076	Cresols (o-,m-,p-)	68	6.1+8	6.1, 27°(b)
2077	alpha-Naphthylamine	60	6.1	6.1, 12°(c)
2078	Toluene diisocyanate	60	6.1	6.1, 19°(b)
2079	Diethylenetriamine	80	8	8, 53°(b)
2187	Carbon dioxide, deeply-refrigerated	22	2	2, 7°(a)
2193	Hexafluoroethane (R 116)	20	2	2, 5°(a)
2201	Nitrous oxide, deeply-refrigerated	225	2+05	2, 7°(a)
2205	Adiponitrile	60	6.1	6.1, 12°(c)
2206	Isocyanates, toxic, n.o.s.	60	6.1	6.1, 19°(b),(c)
2206	Isocyanate solution, toxic, n.o.s.	60	6.1	6.1, 19°(b),(c)
2208	Calcium hypochlorite mixture, dry	50	5.1	5.1, 15°(c)
2209	Formaldehyde solution	80	8	8, 63°(c)
2210	Maneb	40	4.2+4.3	4.2, 16°(c)
2210	Maneb preparation	40	4.2+4.3	4.2, 16°(c)
2211	Polymeric beads, expandable	90	9	9, 4°(c)
2212	Blue asbestos (Crocidolite)	90	9	9, 1°(b)

Substance Identification No. (Lower part) (a)	Name of substance (b)	Hazard Identification No. (Upper part) (c)	Label (d)	Class and item number (e)
2212	Brown asbestos (Amosite or Mysorite)	90	9	9, 1°(b)
2213	Paraformaldehyde	40	4.1	4.1, 6°(c)
2214	Phthalic anhydride	80	8	8, 31°(c)
2215	Maleic anhydride	80	8	8, 31°(c)
2217	Seed cake	40	4.2	4.2, 2°(c)
2218	Acrylic acid, inhibited	839	8+3	8, 32°(b)2.
2219	Allyl glycidyl ether	30	3	3, 31°(c)
2222	Anisole (phenyl methyl ether)	30	3	3, 31°(c)
2224	Benzonitrile	60	6.1	6.1, 12°(b)
2225	Benzenesulphonyl chloride	80	8	8, 35°(c)
2226	Benzotrichloride	80	8	8, 66°(b)
2227	n-Butyl methacrylate, inhibited	39	3	3, 31°(c)
2232	Chloroacetaldehyde	66	6.1	6.1, 17°(a)
2233	Chloroanisidines	60	6.1	6.1, 17°(c)
2234	Chlorobenzotrifluorides (o-,m-,p-)	30	3	3, 31°(c)
2235	Chlorobenzyl chlorides	60	6.1	6.1, 17°(c)
2236	3-Chloro-4-methylphenyl isocyanate	60	6.1	6.1, 19°(b)
2237	Chloronitroanilines	60	6.1	6.1, 17°(c)
2238	Chlorotoluenes (o-,m-,p-)	30	3	3, 31°(c)
2239	Chlorotoluidines	60	6.1	6.1, 17°(c)
2240	Chromosulphuric acid	88	8	8, 1°(a)
2241	Cycloheptane	33	3	3, 3°(b)
2242	Cycloheptene	33	3	3, 3°(b)
2243	Cyclohexyl acetate	30	3	3, 31°(c)
2244	Cyclopentanol	30	3	3, 31°(c)
2245	Cyclopentanone	30	3	3, 31°(c)
2246	Cyclopentene	33	3	3, 2°(b)
2247	n-Decane	30	3	3, 31°(c)
2248	Di-n-butylamine	83	8+3	8, 54°(b)

Substance Identification No. (Lower part) (a)	Name of substance (b)	Hazard Identification No. (Upper part) (c)	Label (d)	Class and item number (e)
2250	Dichlorophenyl isocyanates	60	6.1	6.1, 19°(b)
2251	2,5-Norbornadiene, inhibited (Dicycloheptadiene)	339	3	3, 3°(b)
2252	1,2-Dimethoxyethane	33	3	3, 3°(b)
2253	N,N-Dimethylaniline	60	6.1	6.1, 12°(b)
2256	Cyclohexene	33	3	3, 3°(b)
2257	Potassium	X423	4.3	4.3, 11°(a)
2258	1,2-Propylenediamine	83	8+3	8, 54°(b)
2259	Triethylenetetramine	80	8	8, 53°(b)
2260	Tripropylamine	38	3+8	3, 33°(c)
2261	Xylenols	60	6.1	6.1, 14°(b)
2262	Dimethylcarbamoyl chloride	80	8	8, 35°(b)1.
2263	Dimethylcyclohexanes	33	3	3, 3°(b)
2264	Dimethylcyclohexylamine	83	8+3	8, 54°(b)
2265	N,N-Dimethylformamide	30	3	3, 31°(c)
2266	Dimethyl-N-propylamine	338	3+8	3, 22°(b)
2267	Dimethyl thiophosphoryl chloride	68	6.1+8	6.1, 27°(b)
2269	3,3'-Iminodipropylamine	80	8	8, 53°(c)
2270	Ethylamine, aqueous solution	338	3+8	3, 22°(b)
2271	Ethyl amyl ketones	30	3	3, 31°(c)
2272	N-Ethylaniline	60	6.1	6.1, 12°(c)
2273	2-Ethylaniline	60	6.1	6.1, 12°(c)
2274	N-Ethyl-N-benzylaniline	60	6.1	6.1, 12°(c)
2275	2-Ethylbutanol	30	3	3, 31°(c)
2276	2-Ethylhexylamine	38	3+8	3, 33°(c)
2277	Ethyl methacrylate	339	3	3, 3°(b)
2278	n-Heptene	33	3	3, 3°(b)
2279	Hexachlorobutadiene	60	6.1	6.1, 15°(c)
2280	Hexamethylenediamine, solid	80	8	8, 52°(c)
2281	Hexamethylene diisocyanate	60	6.1	6.1, 19°(b)

Substance Identification No. (Lower part) (a)	Name of substance (b)	Hazard Identification No. (Upper part) (c)	Label (d)	Class and item number (e)
2282	Hexanols	30	3	3, 31°(c)
2283	Isobutyl methacrylate, inhibited	39	3	3, 31°(c)
2284	Isobutyronitrile	336	3+6.1	3, 11°(b)
2285	Isocyanatobenzotrifluorides	63	6.1+3	6.1, 18°(b)
2286	Pentamethylheptane (Isododecane)	30	3	3, 31°(c)
2287	Isoheptene	33	3	3, 3°(b)
2288	Isohexene	33	3	3, 3°(b)
2289	Isophoronediamine	80	8	8, 53°(c)
2290	Isophorone diisocyanate	60	6.1	6.1, 19°(c)
2291	Lead compound, soluble, n.o.s.	60	6.1	6.1, 62°(c)
2293	4-Methoxy-4-methylpentan-2-one	30	3	3, 31°(c)
2294	N-Methylaniline	60	6.1	6.1, 12°(c)
2295	Methyl chloroacetate	63	6.1+3	6.1, 16°(b)
2296	Methylcyclohexane	33	3	3, 3°(b)
2297	Methylcyclohexanones	30	3	3, 31°(c)
2298	Methylcyclopentane	33	3	3, 3°(b)
2299	Methyl dichloroacetate	60	6.1	6.1, 17°(c)
2300	2-Methyl-5-ethylpyridine	60	6.1	6.1, 12°(c)
2301	2-Methylfuran	33	3	3, 3°(b)
2302	5-Methylhexan-2-one	30	3	3, 31°(c)
2303	Isopropenylbenzene	30	3	3, 31°(c)
2304	Naphthalene, molten	44	4.1	4.1, 5°
2305	Nitrobenzenesulphonic acid	80	8	8, 34°(b)
2306	Nitrobenzotrifluorides	60	6.1	6.1, 12°(b)
2307	3-Nitro-4-chlorobenzotrifluoride	60	6.1	6.1, 12°(b)
2308	Nitrosylsulphuric acid	80	8	8, 1°(b)
2309	Octadiene	33	3	3, 3°(b)
2310	Pentan-2,4-dione	30	3	3, 31°(c)
2311	Phenetidines	60	6.1	6.1, 12°(c)

Substance Identification No. (Lower part) (a)	Name of substance (b)	Hazard Identification No. (Upper part) (c)	Label (d)	Class and item number (e)
2312	Phenol, molten	60	6.1	6.1, 24°(b)
2313	Picolines	30	3	3, 31°(c)
2315	Polychlorinated biphenyls	90	9	9, 2°(b)
2317	Sodium cuprocyanide solution	66	6.1	6.1, 41°(a)
2318	Sodium hydrosulphide	40	4.2	4.2, 13°(b)
2319	Terpene hydrocarbons, n.o.s.	30	3	3, 31°(c)
2320	Tetraethylenepentamine	80	8	8, 53°(c)
2321	Trichlorobenzenes, liquid	60	6.1	6.1, 15°(c)
2322	Trichlorobutene	60	6.1	6.1, 15°(b)
2323	Triethyl phosphite	30	3	3, 31°(c)
2324	Triisobutylene (Isobutylene trimer)	30	3	3, 31°(c)
2325	1,3,5-Trimethylbenzene	30	3	3, 31°(c)
2326	Trimethylcyclohexylamine	80	8	8, 53°(c)
2327	Trimethylhexamethylenediamines	80	8	8, 53°(c)
2328	Trimethylhexamethylene diisocyanate	60	6.1	6.1, 19°(c)
2329	Trimethyl phosphite	30	3	3, 31°(c)
2330	Undecane	30	3	3, 31°(c)
2331	Zinc chloride, anhydrous	80	8	8, 11°(c)
2332	Acetaldehyde oxime	30	3	3, 31°(c)
2333	Allyl acetate	336	3+6.1	3, 17°(b)
2334	Allylamine	663	6.1+3	6.1, 7°(a)2.
2335	Allyl ethyl ether	336	3+6.1	3, 17°(b)
2336	Allylformate	336	3+6.1	3, 17°(a)
2337	Phenyl mercaptan	663	6.1+3	6.1, 20°(a)
2338	Benzotrifluoride	33	3	3, 3°(b)
2339	2-Bromobutane	33	3	3, 3°(b)
2340	2-Bromoethyl ethyl ether	33	3	3, 3°(b)
2341	1-Bromo-3-methylbutane	30	3	3, 31°(c)
2342	Bromomethylpropanes	33	3	3, 3°(b)

Substance Identification No. (Lower part) (a)	Name of substance (b)	Hazard Identification No. (Upper part) (c)	Label (d)	Class and item number (e)
2343	2-Bromopentane	33	3	3, 3°(b)
2344	Bromopropanes	33	3	3, 3°(b)
2345	3-Bromopropyne	33	3	3, 3°(b)
2346	Butanedione (diacetyl)	33	3	3, 3°(b)
2347	Butyl mercaptan	33	3	3, 3°(b)
2348	Butyl acrylate, inhibited	39	3	3, 31°(c)
2350	Butyl methyl ether	33	3	3, 3°(b)
2351	Butyl nitrites	33	3	3, 3°(b)
2351	Butyl nitrites	30	3	3, 31°(c)
2352	Butyl vinyl ether, inhibited	339	3	3, 3°(b)
2353	Butyryl chloride	338	3+8	3, 25°(b)
2354	Chloromethyl ethyl ether	336	3+6.1	3, 16°(b)
2356	2-chloropropane	33	3	3, 2°(a)
2357	Cyclohexylamine	83	8+3	8, 54°(b)
2358	Cyclooctatetraene	33	3	3, 3°(b)
2359	Diallylamine	338	3+8+6.1	3, 27°(b)
2360	Diallyl ether	336	3+6.1	3, 17°(b)
2361	Diisobutylamine	38	3+8	3, 33°(c)
2362	1,1-Dichloroethane (Ethylidene chloride)	33	3	3, 3°(b)
2363	Ethyl mercaptan	33	3	3, 2°(a)
2364	n-Propylbenzene	30	3	3, 31°(c)
2366	Diethyl carbonate (Ethyl carbonate)	30	3	3, 31°(c)
2367	alpha-Methylvaleraldehyde	33	3	3, 3°(b)
2368	alpha-Pinene	30	3	3, 31°(c)
2369	Ethylene glycol monobutyl ether	60	6.1	6.1, 14°(c)
2370	1-Hexene	33	3	3, 3(b)
2371	Isopentenes	33	3	3, 1°(a)
2372	1,2-Di-(dimethylamino) ethane	33	3	3, 3°(b)
2373	Diethoxymethane	33	3	3, 3°(b)

Substance Identification No. (Lower part) (a)	Name of substance (b)	Hazard Identification No. (Upper part) (c)	Label (d)	Class and item number (e)
2374	3,3-Diethoxypropene	33	3	3, 3°(b)
2375	Diethyl sulphide	33	3	3, 3°(b)
2376	2,3-Dihydropyran	33	3	3, 3°(b)
2377	1,1-Dimethoxyethane	33	3	3, 3°(b)
2378	2-Dimethylaminoacetonitrile	336	3+6.1	3, 11°(b)
2379	1,3-Dimethylbutylamine	338	3+8	3, 22°(b)
2380	Dimethyldiethoxysilane	33	3	3, 3°(b)
2381	Dimethyl disulphide	33	3	3, 3°(b)
2382	Dimethylhydrazine, symmetrical	663	6.1+3	6.1, 7°(a)2.
2383	Dipropylamine	338	3+8	3, 22°(b)
2384	di-n-propyl ether	33	3	3, 3°(b)
2385	Ethyl isobutyrate	33	3	3, 3°(b)
2386	1-Ethylpiperidine	338	3+8	3, 23°(b)
2387	Fluorobenzene	33	3	3, 3°(b)
2388	Fluorotoluenes	33	3	3, 3°(b)
2389	Furan	33	3	3, 1°(a)
2390	2-Iodobutane	33	3	3, 3°(b)
2391	Iodomethylpropanes	33	3	3, 3°(b)
2392	Iodopropanes	30	3	3, 31°(c)
2393	Isobutyl formate	33	3	3, 3°(b)
2394	Isobutyl propionate	33	3	3, 3°(b)
2395	Isobutyryl chloride	338	3+8	3, 25°(b)
2396	Methacrylaldehyde, inhibited	336	3+6.1	3, 17°(b)
2397	3-Methylbutan-2-one	33	3	3, 3°(b)
2398	Methyl tert-butyl ether	33	3	3, 3°(b)
2399	1-Methylpiperidine	338	3+8	3, 23°(b)
2400	Methyl isovalerate	33	3	3, 3°(b)
2401	Piperidine	338	3+8	3, 23°(b)
2402	Propanethiols (propyl mercaptans)	33	3	3, 3°(b)

Substance Identification No. (Lower part) (a)	Name of substance (b)	Hazard Identification No. (Upper part) (c)	Label (d)	Class and item number (e)
2403	Isopropenyl acetate	33	3	3, 3°(b)
2404	Propionitrile	336	3 + 6.1	3, 11°(b)
2405	Isopropyl butyrate	30	3	3, 31°(c)
2406	Isopropyl isobutyrate	33	3	3, 3°(b)
2409	Isopropyl propionate	33	3	3, 3°(b)
2410	1,2,3,6-Tetrahydropyridine	33	3	3, 3°(b)
2411	Butyronitrile	336	3 + 6.1	3, 11°(b)
2412	Tetrahydrothiophene (thiolane)	33	3	3, 3°(b)
2413	Tetrapropyl orthotitanate	30	3	3, 31°(c)
2414	Thiophene	33	3	3, 3°(b)
2416	Trimethyl borate	33	3	3, 3°(b)
2426	Ammonium nitrate, liquid, (hot concentrated solution)	59	5.1	5.1, 20°
2427	Potassium chlorate aqueous solution	50	5.1	5.1, 11°(b)
2428	Sodium chlorate, aqueous solution	50	5.1	5.1, 11°(b)
2429	Calcium chlorate, aqueous solution	50	5.1	5.1, 11°(b)
2430	Alkylphenols, solid, n.o.s.	88	8	8, 39°(a)
2430	Alkylphenols, solid, n.o.s.	80	8	8, 39°(b),(c)
2431	Anisidines	60	6.1	6.1, 12°(c)
2432	N,N-Diethylaniline	60	6.1	6.1, 12°(c)
2433	Chloronitrotoluenes	60	6.1	6.1, 17°(c)
2434	Dibenzylchlorosilane	X80	8	8, 36°(b)
2435	Ethylphenyldichlorosilane	X80	8	8, 36°(b)
2436	Thioacetic acid	33	3	3, 3°(b)
2437	Methylphenyldichlorosilane	X80	8	8, 36°(b)
2438	Trimethylacetyl chloride	663	6.1 + 3 + 8	6.1, 10°(a)
2439	Sodium hydrogendifluoride	80	8	8, 9°(b)
2440	Stannic chloride pentahydrate	80	8	8, 11°(c)
2442	Trichloroacetyl chloride	X80	8	8, 35°(b)I.
2443	Vanadium oxytrichloride	80	8	8, 12°(b)

Substance Identification No. (Lower part) (a)	Name of substance (b)	Hazard Identification No. (Upper part) (c)	Label (d)	Class and item number (e)
2444	Vanadium tetrachloride	88	8	8, 12°(a)
2445	Lithium alkyls	X333	4.2+4.3	4.2, 31°(a)
2446	Nitrocresols	60	6.1	6.1, 12°(c)
2447	Phosphorus, white, molten	446	4.2+6.1	4.2, 22°
2448	Sulphur, molten	44	4.1	4.1, 15°
2456	2-Chloropropene	33	3	3, 1°(a)
2457	2,3-Dimethylbutane	33	3	3, 3°(b)
2458	Hexadiene	33	3	3, 3°(b)
2459	2-Methyl-1-butene	33	3	3, 1°(a)
2460	2-Methyl-2-butene	33	3	3, 2°(b)
2461	Methylpentadiene	33	3	3, 3°(b)
2464	Beryllium nitrate	56	5.1+6.1	5.1, 29°(b)
2465	Dichloroisocyanuric acid, dry	50	5.1	5.1, 26°(b)
2465	Dichloroisocyanuric acid salts	50	5.1	5.1, 26°(b)
2467	Sodium percarbonates	50	5.1	5.1, 19°(c)
2468	Trichloroisocyanuric acid, dry	50	5.1	5.1, 26°(b)
2469	Zinc bromate	50	5.1	5.1, 16°(c)
2470	Phenylacetonitrile, liquid	60	6.1	6.1, 12°(c)
2473	Sodium arsanilate	60	6.1	6.1, 34°(c)
2474	Thiophosgene	60	6.1	6.1, 21°(b)
2475	Vanadium trichloride	80	8	8, 11°(c)
2477	Methyl isothiocyanate	63	6.1+3	6.1, 20°(b)
2478	Isocyanates or isocyanate solution, flammable, toxic, n.o.s.	336	3+6.1	3, 14°(b)
2478	Isocyanates or isocyanate solution, flammable, toxic, n.o.s.	36	3+6.1	3, 32°(c)
2482	n-Propyl isocyanate	663	6.1+3	6.1, 6°(a)
2483	Isopropyl isocyanate	336	3+6.1	3, 14°(a)
2484	tert-Butyl isocyanate	663	6.1+3	6.1, 6°(a)
2485	n-Butyl isocyanate	663	6.1+3	6.1, 6°(a)

Substance Identification No. (Lower part) (a)	Name of substance (b)	Hazard Identification No. (Upper part) (c)	Label (d)	Class and item number (e)
2486	Isobutyl isocyanate	336	3+6.1	3, 14°(b)
2487	Phenyl isocyanate	63	6.1+3	6.1, 18°(b)
2488	Cyclohexyl isocyanate	63	6.1+3	6.1, 18°(b)
2489	Diphenylmethane-4,4'-diisocyanate	60	6.1	6.1, 19°(c)
2490	Dichloroisopropyl ether	60	6.1	6.1, 17°(b)
2491	Ethanolamine or ethanolamine solution	80	8	8, 53°(c)
2493	Hexamethyleneimine	338	3+8	3, 23°(b)
2495	Iodine pentafluoride	568	5.1+6.1+8	5.1, 5°
2496	Propionic anhydride	80	8	8, 32°(c)
2498	1,2,3,6-Tetrahydrobenzaldehyde	30	3	3, 31°(c)
2501	Tris-(1-aziridinyl) phosphine oxide solution	60	6.1	6.1, 23°(b),(c)
2502	Valeryl chloride	83	8+3	8, 35°(b)2.
2503	Zirconium tetrachloride	80	8	8, 11°(c)
2504	Tetrabromoethane	60	6.1	6.1, 15°(c)
2505	Ammonium fluoride	60	6.1	6.1, 63°(c)
2506	Ammonium hydrogen sulphate	80	8	8, 13°(b)
2507	Chloroplatinic acid, solid	80	8	8, 16°(c)
2508	Molybdenum pentachloride	80	8	8, 11°(c)
2509	Potassium hydrogen sulphate	80	8	8, 13°(b)
2511	2-Chloropropionic acid	80	8	8, 32°(c)
2512	Aminophenols (o-,m-,p-)	60	6.1	6.1, 12°(c)
2513	Bromoacetyl bromide	X80	8	8, 35°(b)1.
2514	Bromobenzene	30	3	3, 31°(c)
2515	Bromoform	60	6.1	6.1, 15°(c)
2516	Carbon tetrabromide	60	6.1	6.1, 15°(c)
2517	1-Chloro-1,1-difluoroethane (R 142b)	23	3	2, 3°(b)
2518	1,5,9-Cyclododecatriene	60	6.1	6.1, 25°(c)
2520	Cyclooctadienes	30	3	3, 31°(c)

Substance Identification No. (Lower part) (a)	Name of substance (b)	Hazard Identification No. (Upper part) (c)	Label (d)	Class and item number (e)
2521	Diketene, inhibited	663	6.1+3	6.1, 13°(a)
2522	Dimethylaminoethyl methacrylate	69	6.1	6.1, 12°(b)
2524	Ethyl orthoformate	30	3	3, 31°(c)
2525	Ethyl oxalate	60	6.1	6.1, 14°(c)
2526	Furfurylamine	38	3+8	3, 33°(c)
2527	Isobutyl acrylate, inhibited	39	3	3, 31°(c)
2528	Isobutyl isobutyrate	30	3	3, 31°(c)
2529	Isobutyric acid	38	3+8	3, 33°(c)
2530	Isobutyric anhydride	38	3+8	3, 33°(c)
2531	Methacrylic acid, inhibited	89	8	8, 32°(c)
2533	Methyl trichloroacetate	60	6.1	6.1, 17°(c)
2535	Methylmorpholine	338	3+8	3, 23°(b)
2536	Methyltetrahydrofuran	33	3	3, 3°(b)
2538	Nitronaphthalene	40	4.1	4.1, 6°(c)
2541	Terpinolene	30	3	3, 31°(c)
2542	Tributylamine	80	8	8, 53°(c)
2545	Hafnium powder, dry	40	4.2	4.2, 12°(b),(c)
2546	Titanium powder, dry	40	4.2	4.2, 12°(b),(c)
2552	Hexafluoroacetone hydrate ⁿ	60	6.1	6.1, 17°(b)
2554	Methylallyl chloride	33	3	3, 3°(b)
2558	Epibromohydrin	663	6.1+3	6.1, 16°(a)
2560	2-Methylpentan-2-ol	30	3	3, 31°(c)
2561	3-Methyl-1-butene (Isopropylethylene)	33	3	3, 1°(a)
2564	Trichloroacetic acid solution	80	8	8, 32°(b)1.,(c)
2565	Dicyclohexylamine	80	8	8, 53°(c)
2567	Sodium pentachlorophenate	60	6.1	6.1, 17°(b)
2570	Cadmium compound	66	6.1	6.1, 61°(a)
2570	Cadmium compound	60	6.1	6.1, 61°(b),(c)
2571	Alkylsulphuric acids	80	8	8, 34°(b)

Substance Identification No. (Lower part) (a)	Name of substance (b)	Hazard Identification No. (Upper part) (c)	Label (d)	Class and item number (e)
2572	Phenylhydrazine	60	6.1	6.1, 12°(b)
2573	Thallium chlorate	56	5.1+6.1	5.1, 29°(b)
2574	Tricresyl phosphate	60	6.1	6.1, 23°(b)
2576	Phosphorus oxybromide, molten	80	8	8, 15°
2577	Phenylacetyl chloride	80	8	8, 35°(b)1.
2578	Phosphorus trioxide	80	8	8, 16°(c)
2579	Piperazine	80	8	8, 52°(c)
2580	Aluminium bromide solution	80	8	8, 5°(c)
2581	Aluminium chloride solution	80	8	8, 5°(c)
2582	Ferric chloride solution	80	8	8, 5°(c)
2583	Alkylsulphonic acids, solid	80	8	8, 1°(b)
2583	Arylsulphonic acids, solid	80	8	8, 1°(b)
2584	Alkylsulphonic acids, liquid	80	8	8, 1°(b)
2584	Arylsulphonic acids, liquid	80	8	8, 1°(b)
2585	Alkylsulphonic acids, solid	80	8	8, 34°(c)
2585	Arylsulphonic acids, solid	80	8	8, 34°(c)
2586	Alkylsulphonic acids, liquid	80	8	8, 34°(c)
2586	Arylsulphonic acids, liquid	80	8	8, 34°(c)
2587	Benzoquinone	60	6.1	6.1, 14°(b)
2588	Pesticide, solid, toxic, n.o.s.	66	6.1	6.1, 87°(a)
2588	Pesticide, solid, toxic, n.o.s.	60	6.1	6.1, 87°(b),(c)
2589	Vinyl chloroacetate	63	6.1+3	6.1, 16°(b)
2590	White asbestos (Actinolite, Anthophyllite, Chrysotile or Tremolite)	90	9	9, 1°(c)
2591	Xenon, deeply-refrigerated	22	2	2, 7°(a)
2599	Gas mixture R 503	20	2	2, 6°(a)
2600	Town gas	236	3+6.1	2, 2°(bt)
2600	Water gas	236	3+6.1	2, 2°(bt)
2600	Synthesis gas	236	3+6.1	2, 2°(bt)

Substance Identification No. (Lower part) (a)	Name of substance (b)	Hazard Identification No. (Upper part) (c)	Label (d)	Class and item number (e)
2602	Gas mixture R 500	20	2	2, 4°(a)
2603	Cycloheptatriene	336	3+6.1	3, 19°(b)
2604	Boron trifluoride diethyl etherate	883	8+3	8, 33°(a)
2605	Methoxymethyl isocyanate	336	3+6.1	3, 14°(a)
2606	Methyl orthosilicate (Tetramethoxysilane)	663	6.1+3	6.1, 8°(a)
2607	Acrolein dimer, stabilized	39	3	3, 31°(c)
2608	Nitropropanes	30	3	3, 31°(c)
2609	Triallyl borate	60	6.1	6.1, 14°(c)
2610	Triallylamine	38	3+8	3, 33°(c)
2611	Propylene chlorohydrin	63	6.1+3	6.1, 16°(b)
2612	Methyl propyl ether	33	3	3, 2°(b)
2614	Methallyl alcohol	30	3	3, 31°(c)
2615	Ethyl propyl ether	33	3	3, 3°(b)
2616	Triisopropyl borate	33	3	3, 3°(b)
2616	Triisopropyl borate	30	3	3, 31°(c)
2617	Methylcyclohexanols	30	3	3, 31°(c)
2618	Vinyltoluene, inhibited (o-,m-,p-)	39	3	3, 31°(c)
2619	Benzyltrimethylamine	83	8+3	8, 54°(b)
2620	Amyl butyrates	30	3	3, 31°(c)
2621	Acetyl methyl carbinol	30	3	3, 31°(c)
2622	Glycidaldehyde	336	3+6.1	3, 17°(b)
2624	Magnesium silicide	423	4.3	4.3, 12°(b)
2626	Chloric acid, aqueous solution	50	5.1	5.1, 4°(b)
2627	Nitrites, inorganic, n.o.s.	50	5.1	5.1, 23°(b)
2628	Potassium fluoroacetate	66	6.1	6.1, 17°(a)
2629	Sodium fluoroacetate	66	6.1	6.1, 17°(a)
2642	Fluoroacetic acid	66	6.1	6.1, 17°(a)
2643	Methyl bromoacetate	60	6.1	6.1, 17°(b)
2644	Methyl iodide	60	6.1	6.1, 15°(b)

Substance Identification No. (Lower part) (a)	Name of substance (b)	Hazard Identification No. (Upper part) (c)	Label (d)	Class and item number (e)
2645	Phenacyl bromide	60	6.1	6.1, 17°(b)
2646	Hexachlorocyclopentadiene	66	6.1	6.1, 15°(a)
2647	Malononitrile	60	6.1	6.1, 12°(b)
2648	1,2-Dibromobutan-3-one	60	6.1	6.1, 17°(b)
2649	1,3-Dichloroacetone	60	6.1	6.1, 17°(b)
2650	1,1-Dichloro-1-nitroethane	60	6.1	6.1, 17°(b)
2651	4,4'-Diaminodiphenylmethane	60	6.1	6.1, 12°(c)
2653	Benzyl iodide	60	6.1	6.1, 15°(b)
2655	Potassium fluorosilicate	60	6.1	6.1, 64°(c)
2656	Quinoline	60	6.1	6.1, 12°(c)
2657	Selenium disulphide	60	6.1	6.1, 55°(b)
2658	Selenium powder	60	6.1	6.1, 55°(c)
2659	Sodium chloroacetate	60	6.1	6.1, 17°(c)
2660	Nitrotoluidines (mono)	60	6.1	6.1, 12°(c)
2661	Hexachloroacetone	60	6.1	6.1, 17°(c)
2662	Hydroquinone	60	6.1	6.1, 14°(c)
2664	Dibromomethane	60	6.1	6.1, 15°(c)
2666	Ethyl cyanoacetate	60	6.1	6.1, 12°(c)
2667	Butyltoluenes	60	6.1	6.1, 25°(c)
2668	Chloroacetonitrile	63	6.1 + 3	6.1, 11°(b)
2669	Chlorocresols	60	6.1	6.1, 14°(b)
2670	Cyanuric chloride	80	8	8, 39°(b)
2671	Aminopyridines (o-,m-,p-)	60	6.1	6.1, 12°(b)
2672	Ammonia solution containing between 10 and 35% ammonia	80	8	8, 43°(c)
2673	2-Amino-4-chlorophenol	60	6.1	6.1, 12°(b)
2674	Sodium fluorosilicate	60	6.1	6.1, 64°(c)
2677	Rubidium hydroxide solution	80	8	8, 42°(b),(c)
2678	Rubidium hydroxide	80	8	8, 41°(b)
2679	Lithium hydroxide solution	80	8	8, 42°(b),(c)

Substance Identification No. (Lower part) (a)	Name of substance (b)	Hazard Identification No. (Upper part) (c)	Label (d)	Class and item number (e)
2680	Lithium hydroxide monohydrate	80	8	8, 41°(b)
2681	Caesium hydroxide solution	80	8	8, 42°(b),(c)
2682	Caesium hydroxide	80	8	8, 41°(b)
2683	Ammonium sulphide solution	86	8+6.1+3	8, 45°(b)2.
2684	Diethylaminopropylamine	38	3+8	3, 33°(c)
2685	N,N-Diethylethylenediamine	83	8+3	8, 54°(b)
2686	Diethylaminoethanol	30	3	3, 31°(c)
2687	Dicyclohexylammonium nitrite	40	4.1	4.1, 11°(c)
2688	1-Bromo-3-chloropropane	60	6.1	6.1, 15°(c)
2689	Glycerol alpha-monochlorohydrin	60	6.1	6.1, 17°(c)
2690	N,n-Butylimidazole	60	6.1	6.1, 12°(b)
2691	Phosphorus pentabromide	80	8	8, 11°(b)
2692	Boron tribromide (boron bromide)	X88	8	8, 12°(a)
2693	Bisulphites, aqueous solution, n.o.s.	80	8	8, 17°(c)
2698	Tetrahydrophthalic anhydrides	80	8	8, 31°(c)
2699	Trifluoroacetic acid	88	8	8, 32°(a)
2705	1-Pentol	80	8	8, 66°(b)
2707	Dimethyldioxanes	33	3	3, 3°(b)
2707	Dimethyldioxanes	30	3	3, 31°(c)
2708	Butoxyl	30	3	3, 31°(c)
2709	Butylbenzenes	30	3	3, 31°(c)
2710	Dipropyl ketone	30	3	3, 31°(c)
2711	Dibromobenzene	30	3	3, 31°(c)
2713	Acridine	60	6.1	6.1, 12°(c)
2714	Zinc resinate	40	4.1	4.1, 12°(c)
2715	Aluminium resinate	40	4.1	4.1, 12°(c)
2716	1,4-Butynediol	60	6.1	6.1, 14°(c)
2717	Camphor, synthetic	40	4.1	4.1, 6°(c)
2719	Barium bromate	56	5.1+6.1	5.1, 29°(b)

Substance Identification No. (Lower part) (a)	Name of substance (b)	Hazard Identification No. (Upper part) (c)	Label (d)	Class and item number (e)
2720	Chromium nitrate	50	5.1	5.1, 22°(c)
2721	Copper chlorate	50	5.1	5.1, 11°(b)
2722	Lithium nitrate	50	5.1	5.1, 22°(c)
2723	Magnesium chlorate	50	5.1	5.1, 11°(b)
2724	Manganese nitrate	50	5.1	5.1, 22°(c)
2725	Nickel nitrate	50	5.1	5.1, 22°(c)
2726	Nickel nitrite	50	5.1	5.1, 23°(c)
2727	Thallium nitrate	65	6.1+05	6.1, 68°(b)
2728	Zirconium nitrate	50	5.1	5.1, 22°(c)
2729	Hexachlorobenzene	60	6.1	6.1, 15°(c)
2730	Nitroanisole	60	6.1	6.1, 12°(c)
2732	Nitrobromobenzene	60	6.1	6.1, 12°(c)
2733	Amines or polyamines, flammable, corrosive, n.o.s.	338	3+8	3, 22°(a),(b)
2733	Amines or polyamines, flammable, corrosive, n.o.s.	38	3+8	3, 33°(c)
2734	Amines or polyamines, liquid, corrosive, flammable, n.o.s.	883	8+3	8, 54°(a)
2734	Amines or polyamines, liquid, corrosive, flammable, n.o.s.	83	8+3	8, 54°(b)
2735	Amines or polyamines, liquid, corrosive, n.o.s.	88	8	8, 53°(a)
2735	Amines or polyamines, liquid, corrosive, n.o.s.	80	8	8, 53°(b),(c)
2738	N-Butylaniline	60	6.1	6.1, 12°(b)
2739	Butyric anhydride	80	8	8, 32°(c)
2740	n-Propyl chloroformate	668	6.1+8+3	6.1, 28°(a)
2741	Barium hypochlorite	56	5.1+6.1	5.1, 29°(b)
2742	Chloroformates, toxic, corrosive, flammable, n.o.s.	638	6.1+3+8	6.1, 28°(b)
2743	n-Butyl chloroformate	638	6.1+3+8	6.1, 28°(b)
2744	Cyclobutyl chloroformate	638	6.1+3+8	6.1, 28°(b)

Substance Identification No. (Lower part) (a)	Name of substance (b)	Hazard Identification No. (Upper part) (c)	Label (d)	Class and item number (e)
2745	Chloromethyl chloroformate	68	6.1+8	6.1, 27°(b)
2746	Phenyl chloroformate	68	6.1+8	6.1, 27°(b)
2747	tert-Butylcyclohexyl chloroformate	60	6.1	6.1, 17°(c)
2748	2-Ethylhexyl chloroformate	68	6.1+8	6.1, 27°(b)
2749	Tetramethylsilane	33	3	3, 1°(a)
2750	1,3-Dichloropropanol-2	60	6.1	6.1, 17°(b)
2751	Diethylthiophosphoryl chloride	80	8	8, 35°(b)1.
2752	1,2-Epoxy-3-ethoxypropane	30	3	3, 31°(c)
2753	N-Ethylbenzyltoluidines	60	6.1	6.1, 12°(c)
2754	N-Ethyltoluidines	60	6.1	6.1, 12°(h)
2757	Carbamate pesticide, solid, toxic	66	6.1	6.1, 74°(a)
2757	Carbamate pesticide, solid, toxic	60	6.1	6.1, 74°(b),(c)
2758	Carbamate pesticide, liquid, flammable, toxic	336	3+6.1	3, 44°(a),(b)
2759	Arsenical pesticide, solid, toxic	66	6.1	6.1, 79°(a)
2759	Arsenical pesticide, solid, toxic	60	6.1	6.1, 79°(b),(c)
2760	Arsenical pesticide, liquid, flammable, toxic	336	3+6.1	3, 49°(a),(b)
2761	Organochlorine pesticide, solid, toxic	66	6.1	6.1, 72°(a)
2761	Organochlorine pesticide, solid, toxic	60	6.1	6.1, 72°(b),(c)
2762	Organochlorine pesticide, liquid, flammable, toxic	336	3+6.1	3, 42°(a),(b)
2763	Triazine pesticide, solid, toxic	66	6.1	6.1, 82°(a)
2763	Triazine pesticide, solid, toxic	60	6.1	6.1, 82°(b),(c)
2764	Triazine pesticide, liquid, flammable, toxic	336	3+6.1	3, 52°(a),(b)
2765	Phenoxy pesticide, solid, toxic	66	6.1	6.1, 73°(a)
2765	Phenoxy pesticide, solid, toxic	60	6.1	6.1, 73°(b),(c)
2766	Phenoxy pesticide, liquid, flammable, toxic	336	3+6.1	3, 43°(a),(b)
2767	Phenyl urea pesticide, solid, toxic	66	6.1	6.1, 85°(a)

Substance Identification No. (Lower part) (a)	Name of substance (b)	Hazard Identification No. (Upper part) (c)	Label (d)	Class and item number (e)
2767	Phenyl urea pesticide, solid, toxic	60	6.1	6.1, 85°(b),(c)
2768	Phenyl urea pesticide, liquid, flammable, toxic	336	3+6.1	3, 55°(a),(b)
2769	Benzoic derivative pesticide, solid, toxic	66	6.1	6.1, 83°(a)
2769	Benzoic derivative pesticide, solid, toxic	60	6.1	6.1, 83°(b),(c)
2770	Benzoic derivative pesticide, liquid, flammable, toxic	336	3+6.1	3, 53°(a),(b)
2771	Dithiocarbamate pesticide, solid, toxic	66	6.1	6.1, 86°(a)
2771	Dithiocarbamate pesticide, solid, toxic	60	6.1	6.1, 86°(b),(c)
2772	Dithiocarbamate pesticide, liquid, flammable, toxic	336	3+6.1	3, 56°(a),(b)
2773	Phthalimide derivative pesticide, solid, toxic	66	6.1	6.1, 84°(a)
2773	Phthalimide derivative pesticide, solid, toxic	60	6.1	6.1, 84°(b),(c)
2774	Phthalimide derivative pesticide, liquid, flammable, toxic	336	3+6.1	3, 54°(a),(b)
2775	Copper based pesticide, solid, toxic	66	6.1	6.1, 80°(a)
2775	Copper based pesticide, solid, toxic	60	6.1	6.1, 80°(b),(c)
2776	Copper based pesticide, liquid, flammable, toxic	336	3+6.1	3, 50°(a),(b)
2777	Mercury based pesticide, solid, toxic	66	6.1	6.1, 75°(a)
2777	Mercury based pesticide, solid, toxic	60	6.1	6.1, 75°(b),(c)
2778	Mercury based pesticide, liquid, flammable, toxic	336	3+6.1	3, 45°(a),(b)
2779	Substituted nitrophenol pesticide, solid, toxic	66	6.1	6.1, 81°(a)
2779	Substituted nitrophenol pesticide, solid, toxic	60	6.1	6.1, 81°(b),(c)
2780	Substituted nitrophenol pesticide, liquid, flammable, toxic	336	3+6.1	3, 51°(a),(b)

Substance Identification No. (Lower part) (a)	Name of substance (b)	Hazard Identification No. (Upper part) (c)	Label (d)	Class and item number (e)
2781	Bipyridilium pesticide, solid, toxic	66	6.1	6.1, 78°(a)
2781	Bipyridilium pesticide, solid, toxic	60	6.1	6.1, 78°(b),(c)
2782	Bipyridilium pesticide, liquid, flammable, toxic	336	3+6.1	3, 48°(a),(b)
2783	Organophosphorus pesticide, solid, toxic	66	6.1	6.1, 71°(a)
2783	Organophosphorus pesticide, solid, toxic	60	6.1	6.1, 71°(b),(c)
2784	Organophosphorous pesticide, liquid, flammable, toxic	336	3+6.1	3, 41°(a),(b)
2785	4-Thiapentanal	60	6.1	6.1, 21°(c)
2786	Organotin pesticide, solid, toxic	66	6.1	6.1, 76°(a)
2786	Organotin pesticide, solid, toxic	60	6.1	6.1, 76°(b),(c)
2787	Organotin pesticide, liquid, flammable, toxic	336	3+6.1	3, 46°(a),(b)
2788	Organotin compound, liquid, n.o.s.	66	6.1	6.1, 32°(a)
2788	Organotin compound, liquid, n.o.s.	60	6.1	6.1, 32°(b),(c)
2789	Acetic acid, glacial	83	8+3	8, 32°(b)2.
2789	Acetic acid, solution	83	8+3	8, 32°(b)2.
2790	Acetic acid, solution	80	8	8, 32°(c)
2793	Ferrous metal borings, shavings, turnings or cuttings	40	4.2	4.2, 12°(c)
2796	Sulphuric acid, with more than 51% acid	80	8	8, 1°(b)
2796	Battery fluid, acid	80	8	8, 1°(b)
2797	Battery fluid, alkali	80	8	8, 42°(b)
2798	Phenylphosphorus dichloride	80	8	8, 35°(b)1.
2799	Phenylphosphorus thiodichloride	80	8	8, 35°(b)1.
2801	Dye or dye intermediate, liquid, corrosive, n.o.s.	80	8	8, 66°(b),(c)
2802	Copper chloride	80	8	8, 11°(c)
2803	Gallium	80	8	8, 65°(c)

Substance Identification No. (Lower part) (a)	Name of substance (b)	Hazard Identification No. (Upper part) (c)	Label (d)	Class and item number (e)
2805	Lithium hydride, fused solid	423	4.3	4.3, 16°(b)
2809	Mercury	80	8	8, 66°(c)
2810	Toxic liquid, organic, n.o.s.	66	6.1	6.1, 25°(a)
2810	Toxic liquid, organic, n.o.s.	60	6.1	6.1, 25°(b),(c)
2811	Toxic solid, organic, n.o.s.	66	6.1	6.1, 25°(a)
2811	Toxic solid, organic, n.o.s.	60	6.1	6.1, 25°(b),(c)
2813	Water-reactive solid, n.o.s.	423	4.3	4.3, 20°(b),(c)
2814	Infectious substance, affecting humans	606	6.2	6.2, 3°(b)
2815	N-Aminoethylpiperazine	80	8	8, 53°(c)
2817	Ammonium hydrogendifluoride solution	86	8+6.1	8, 7°(b),(c)
2818	Ammonium polysulphide solution	86	8+6.1	8, 45°(c)
2818	Ammonium polysulphide solution	86	8+6.1	8, 45°(b)1.
2819	Amyl acid phosphate	80	8	8, 38°(c)
2820	Butyric acid	80	8	8, 32°(c)
2821	Phenol solution	60	6.1	6.1, 14°(b),(c)
2822	2-Chloropyridine	60	6.1	6.1, 12°(b)
2823	Crotonic acid	80	8	8, 31°(c)
2826	Ethyl chlorothioformate	80	8	8, 64°(b)
2829	Caproic acid	80	8	8, 32°(c)
2830	Lithium ferrosilicon	423	4.3	4.3, 12°(b)
2831	1,1,1-Trichloroethane	60	6.1	6.1, 15°(c)
2834	Phosphorous acid	80	8	8, 16°(c)
2835	Sodium aluminium hydride	423	4.3	4.3, 16°(b)
2837	Bisulphates, aqueous solution	80	8	8, 1°(b),(c)
2838	Vinyl butyrate, inhibited	339	3	3, 3°(b)
2839	Aldol	60	6.1	6.1, 14°(b)
2840	Butyraldoxime	30	3	3, 31°(c)
2841	Di-n-amylamine	36	3+6.1	3, 32°(c)

Substance Identification No. (Lower part) (a)	Name of substance (b)	Hazard Identification No. (Upper part) (c)	Label (d)	Class and item number (e)
2842	Nitroethane	30	3	3, 31°(c)
2844	Calcium manganese silicon	423	4.3	4.3, 12°(c)
2845	Pyrophoric liquid, organic, n.o.s.	333	4.2	4.2, 6°(a)
2849	3-Chloropropanol-1	60	6.1	6.1, 17°(c)
2850	Propylene tetramer	30	3	3, 31°(c)
2851	Boron trifluoride dihydrate	80	8	8, 10°(b)
2853	Magnesium fluorosilicate	60	6.1	6.1, 64°(c)
2854	Ammonium fluorosilicate	60	6.1	6.1, 64°(c)
2855	Zinc fluorosilicate	60	6.1	6.1, 64°(c)
2856	Fluorosilicates, n.o.s.	60	6.1	6.1, 64°(c)
2858	Zirconium, dry	40	4.1	4.1, 13°(c)
2859	Ammonium metavanadate	60	6.1	6.1, 58°(b)
2861	Ammonium polyvanadate	60	6.1	6.1, 58°(b)
2862	Vanadium pentoxide	60	6.1	6.1, 58°(b)
2863	Sodium ammonium vanadate	60	6.1	6.1, 58°(b)
2864	Potassium metavanadate	60	6.1	6.1, 58°(b)
2865	Hydroxylamine sulphate	80	8	8, 16°(c)
2869	Titanium trichloride mixture	80	8	8, 11°(b),(c)
2870	Aluminium borohydride	X333	4.2+4.3	4.2, 17°(a)
2870	Aluminium borohydride in devices	X333	4.2+4.3	4.2, 17°(a)
2871	Antimony powder	60	6.1	6.1, 59°(c)
2872	Dibromochloropropanes	60	6.1	6.1, 15°(c)
2873	Dibutylaminoethanol	60	6.1	6.1, 12°(c)
2874	Furfuryl alcohol	60	6.1	6.1, 14°(c)
2875	Hexachlorophene	60	6.1	6.1, 17°(c)
2876	Resorcinol	60	6.1	6.1, 14°(c)
2878	Titanium sponge, powder or granules	40	4.1	4.1, 13°(c)
2879	Selenium oxychloride	886	8+6.1	8, 12°(a)
2880	Calcium hypochlorite, hydrated mixture	50	5.1	5.1, 15°(b)

Substance Identification No. (Lower part) (a)	Name of substance (b)	Hazard Identification No. (Upper part) (c)	Label (d)	Class and item number (e)
2880	Calcium hypochlorite, hydrated	50	5.1	5.1, 15°(b)
2881	Metal catalyst, dry	40	4.2	4.2, 12°(b),(c)
2900	Infectious substance, affecting animals only	606	6.2	6.2, 3°(b)
2902	Pesticide, liquid, toxic, n.o.s.	66	6.1	6.1, 87°(a)
2902	Pesticide, liquid, toxic, n.o.s.	60	6.1	6.1, 87°(b),(c)
2903	Pesticide, liquid, toxic, flammable, n.o.s.	663	6.1 + 3	6.1, 87°(a)
2903	Pesticide, liquid, toxic, flammable, n.o.s.	63	6.1 + 3	6.1, 87°(b),(c)
2904	Chlorophenolates, liquid	80	8	8, 62°(c)
2904	Phenolates, liquid	80	8	8, 62°(c)
2905	Chlorophenolates, solid	80	8	8, 62°(c)
2905	Phenolates, solid	80	8	8, 62°(c)
2906	Triisocyanatoisocyanurate of isophoronediiisocyanate, solution	30	3	3, 31°(c)
2912	Radioactive material, low specific activity (LSA), not otherwise specified in this appendix gas gas, flammable liquid, flammable, with a flash-point not above 61 °C solid, flammable oxidizing toxic corrosive	70 72 723 73 74 75 76 78	7A, 7B or 7C 7A, 7B or 7C 7A, 7B or 7C + 3 7A, 7B or 7C + 3 7A, 7B or 7C + 4.1 7A, 7B or 7C + 05 7A, 7B or 7C + 6.1 7A, 7B or 7C + 8	7, Sch 5,6 or 13
2920	Corrosive liquid, flammable, n.o.s.	883	8 + 3	8, 68°(a)
2920	Corrosive liquid, flammable, n.o.s.	83	8 + 3	8, 68°(b)
2921	Corrosive solid, flammable, n.o.s.	884	8 + 4.1	8, 67°(a)

Substance Identification No. (Lower part) (a)	Name of substance (b)	Hazard Identification No. (Upper part) (c)	Label (d)	Class and item number (e)
2921	Corrosive solid, flammable, n.o.s.	84	8+4.1	8, 67°(b)
2922	Corrosive liquid, toxic, n.o.s.	886	8+6.1	8, 76°(a)
2922	Corrosive liquid, toxic, n.o.s.	86	8+6.1	8, 76°(b),(c)
2923	Corrosive solid, toxic, n.o.s.	886	8+6.1	8, 75°(a)
2923	Corrosive solid, toxic, n.o.s.	86	8+6.1	8, 75°(b),(c)
2924	Flammable liquid, corrosive, n.o.s.	338	3+8	3, 26°(a),(b)
2924	Flammable liquid, corrosive, n.o.s.	38	3+8	3, 33°(c)
2925	Flammable solid, corrosive, organic, n.o.s.	48	4.1+8	4.1, 8°(b),(c)
2926	Flammable solid, toxic, organic, n.o.s.	46	4.1+6.1	4.1, 7°(b),(c)
2927	Toxic liquid, corrosive, organic, n.o.s.	668	6.1+8	6.1, 27°(a)
2927	Toxic liquid, corrosive, organic, n.o.s.	68	6.1+8	6.1, 27°(b)
2928	Toxic solid, corrosive, organic, n.o.s.	668	6.1+8	6.1, 27°(a)
2928	Toxic solid, corrosive, organic, n.o.s.	68	6.1+8	6.1, 27°(b)
2929	Toxic liquid, flammable, organic, n.o.s.	663	6.1+3	6.1, 26°(a)1.
2929	Toxic liquid, flammable, organic, n.o.s.	63	6.1+3	6.1, 26°(b)1.
2930	Toxic solid, flammable, organic, n.o.s.	664	6.1+4.1	6.1, 26°(a)2.
2930	Toxic solid, flammable, organic, n.o.s.	64	6.1+4.1	6.1, 26°(b)2.
2931	Vanadyl sulphate	60	6.1	6.1, 58°(b)
2933	Methyl 2-chloropropionate	30	3	3, 31°(c)
2934	Isopropyl 2-chloropropionate	30	3	3, 31°(c)
2935	Ethyl 2-chloropropionate	30	3	3, 31°(c)
2936	Thiolactic acid	60	6.1	6.1, 21°(b)
2937	alpha-Methylbenzyl alcohol	60	6.1	6.1, 14°(c)

Substance Identification No. (Lower part) (a)	Name of substance (b)	Hazard Identification No. (Upper part) (c)	Label (d)	Class and item number (e)
2938	Methyl benzoate	60	6.1	6.1, 14°(c)
2940	9-Phosphabicyclononanes (cyclooctadiene phosphines)	40	4.2	4.2, 5°(b)
2941	Fluoroanilines	60	6.1	6.1, 12°(c)
2942	2-Trifluoromethylaniline	60	6.1	6.1, 12°(c)
2943	Tetrahydrofurfurylamine	30	3	3, 31°(c)
2945	N-Methylbutylamine	338	3+8	3, 22°(b)
2946	2-Amino-5-diethylaminopentane	60	6.1	6.1, 12°(c)
2947	Isopropyl chloroacetate	30	3	3, 31°(c)
2948	3-Trifluoromethylaniline	60	6.1	6.1, 17°(b)
2949	Sodium hydrosulphide hydrated	80	8	8, 45°(b)1.
2950	Magnesium granules, coated	423	4.3	4.3, 11°(c)
2965	Boron trifluoride dimethyl etherate	382	4.3+3+8	4.3, 2°(a)
2966	Thioglycol	60	6.1	6.1, 21°(b)
2967	Sulphamic acid	80	8	8, 16°(c)
2968	Maneb, stabilized	423	4.3	4.3, 20°(c)
2968	Maneb preparation, stabilized	423	4.3	4.3, 20°(c)
2980	Uranyl nitrate hexahydrate solution	78	7A, 7B or 7C +8	7, Sch 5,6 or 13

Substance Identification No. (Lower part) (a)	Name of substance (b)	Hazard Identification No. (Upper part) (c)	Label (d)	Class and item number (e)
2982	Radioactive material, not otherwise specified in this appendix gas gas, flammable liquid, flammable, with a flash-point not above 61 °C solid, flammable oxidizing toxic corrosive	70 72 723 73 74 75 76 78	7A, 7B or 7C 7A, 7B or 7C 7A, 7B or 7C + 3 7A, 7B or 7C + 3 7A, 7B or 7C + 4.1 7A, 7B or 7C + 05 7A, 7B or 7C + 6.1 7A, 7B or 7C + 8	7, Sch 9,10,11 or 13
2983	Ethylene oxide and propylene oxide mixture	336	3+6.1	3, 17°(a)
2984	Hydrogen peroxide, aqueous solution	50	5.1	5.1, 1°(c)
2985	Chlorosilanes, flammable, corrosive, n.o.s.	338	3 + 8	3, 21°(b)
2986	Chlorosilanes, corrosive, flammable, n.o.s.	X83	8+3	8, 37°(b)
2987	Chlorosilanes, corrosive, n.o.s.	80	8	8, 36°(b)
2988	Chlorosilanes, water-reactive, flammable, corrosive, n.o.s.	X338	4.3+3+8	4.3, 1°(a)
2989	Lead phosphite, dibasic	40	4.1	4.1, 11°(b),(c)
2991	Carbamate pesticide, liquid, toxic, flammable	663	6.1+3	6.1, 74°(a)
2991	Carbamate pesticide, liquid, toxic, flammable	63	6.1+3	6.1, 74°(b),(c)
2992	Carbamate pesticide, liquid, toxic	66	6.1	6.1, 74°(a)
2992	Carbamate pesticide, liquid, toxic	60	6.1	6.1, 74°(b),(c)
2993	Arsenical pesticide, liquid, toxic, flammable	663	6.1+3	6.1, 79°(a)
2993	Arsenical pesticide, liquid, toxic, flammable	63	6.1+3	6.1, 79°(b),(c)

Substance Identification No. (Lower part) (a)	Name of substance (b)	Hazard Identification No. (Upper part) (c)	Label (d)	Class and item number (e)
2994	Arsenical pesticide, liquid, toxic	66	6.1	6.1, 79°(a)
2994	Arsenical pesticide, liquid, toxic	60	6.1	6.1, 79°(b),(c)
2995	Organochlorine pesticide, liquid, toxic, flammable	663	6.1 + 3	6.1, 72°(a)
2995	Organochlorine pesticide, liquid, toxic, flammable	63	6.1 + 3	6.1, 72°(b),(c)
2996	Organochlorine pesticide, liquid, toxic	66	6.1	6.1, 72°(a)
2996	Organochlorine pesticide, liquid, toxic	60	6.1	6.1, 72°(b),(c)
2997	Triazine pesticide, liquid, toxic, flammable	663	6.1 + 3	6.1, 82°(a)
2997	Triazine pesticide, liquid, toxic, flammable	63	6.1 + 3	6.1, 82°(b),(c)
2998	Triazine pesticide, liquid, toxic	66	6.1	6.1, 82°(a)
2998	Triazine pesticide, liquid, toxic	60	6.1	6.1, 82°(b),(c)
2999	Phenoxy pesticide, liquid, toxic, flammable	663	6.1 + 3	6.1, 73°(a)
2999	Phenoxy pesticide, liquid, toxic, flammable	63	6.1 + 3	6.1, 73°(b),(c)
3000	Phenoxy pesticide, liquid, toxic	66	6.1	6.1, 73°(a)
3000	Phenoxy pesticide, liquid, toxic	60	6.1	6.1, 73°(b),(c)
3001	Phenyl urea pesticide, liquid, toxic, flammable	663	6.1 + 3	6.1, 85°(a)
3001	Phenyl urea pesticide, liquid, toxic, flammable	63	6.1 + 3	6.1, 85°(b),(c)
3002	Phenyl urea pesticide, liquid, toxic	66	6.1	6.1, 85°(a)
3002	Phenyl urea pesticide, liquid, toxic	60	6.1	6.1, 85°(b),(c)
3003	Benzoic derivative pesticide, liquid, toxic, flammable	663	6.1 + 3	6.1, 83°(a)
3003	Benzoic derivative pesticide, liquid, toxic, flammable	63	6.1 + 3	6.1, 83°(b),(c)
3004	Benzoic derivative pesticide, liquid, toxic	66	6.1	6.1, 83°(a)

Substance Identification No. (Lower part) (a)	Name of substance (b)	Hazard Identification No. (Upper part) (c)	Label (d)	Class and item number (e)
3004	Benzoic derivative pesticide, liquid, toxic	60	6.1	6.1, 83°(b),(c)
3005	Dithiocarbamate pesticide, liquid, toxic, flammable	663	6.1+3	6.1, 86°(a)
3005	Dithiocarbamate pesticide, liquid, toxic, flammable	63	6.1+3	6.1, 86°(b),(c)
3006	Dithiocarbamate pesticide, liquid, toxic	66	6.1	6.1, 86°(a)
3006	Dithiocarbamate pesticide, liquid, toxic	60	6.1	6.1, 86°(b),(c)
3007	Phthalimide derivative pesticide, liquid, toxic, flammable	663	6.1+3	6.1, 84°(a)
3007	Phthalimide derivative pesticide, liquid, toxic, flammable	63	6.1+3	6.1, 84°(b),(c)
3008	Phthalimide derivative pesticide, liquid, toxic	66	6.1	6.1, 84°(a)
3008	Phthalimide derivative pesticide, liquid, toxic	60	6.1	6.1, 84°(b),(c)
3009	Copper based pesticide, liquid, toxic, flammable	663	6.1+3	6.1, 80°(a)
3009	Copper based pesticide, liquid, toxic, flammable	63	6.1+3	6.1, 80°(b),(c)
3010	Copper based pesticide, liquid, toxic	66	6.1	6.1, 80°(a)
3010	Copper based pesticide, liquid, toxic	60	6.1	6.1, 80°(b),(c)
3011	Mercury based pesticide, liquid, toxic, flammable	663	6.1+3	6.1, 75°(a)
3011	Mercury based pesticide, liquid, toxic, flammable	63	6.1+3	6.1, 75°(b),(c)
3012	Mercury based pesticide, liquid, toxic	66	6.1	6.1, 75°(a)
3012	Mercury based pesticide, liquid, toxic	60	6.1	6.1, 75°(b),(c)
3013	Substituted nitrophenol pesticide, liquid, toxic, flammable	663	6.1+3	6.1, 81°(a)
3013	Substituted nitrophenol pesticide, liquid, toxic, flammable	63	6.1+3	6.1, 81°(b),(c)

Substance Identification No. (Lower part) (a)	Name of substance (b)	Hazard Identification No. (Upper part) (c)	Label (d)	Class and item number (e)
3014	Substituted nitrophenol pesticide, liquid, toxic	66	6.1	6.1, 81°(a)
3014	Substituted nitrophenol pesticide, liquid, toxic	60	6.1	6.1, 81°(b),(c)
3015	Bipyridilium pesticide, liquid, toxic, flammable	663	6.1+3	6.1, 78°(a)
3015	Bipyridilium pesticide, liquid, toxic, flammable	63	6.1+3	6.1, 78°(b),(c)
3016	Bipyridilium pesticide, liquid, toxic	66	6.1	6.1, 78°(a)
3016	Bipyridilium pesticide, liquid, toxic	60	6.1	6.1, 78°(b),(c)
3017	Organophosphorus pesticide, liquid, toxic, flammable	663	6.1+3	6.1, 71°(a)
3017	Organophosphorus pesticide, liquid, toxic, flammable	63	6.1+3	6.1, 71°(b),(c)
3018	Organophosphorus pesticide, liquid, toxic	66	6.1	6.1, 71°(a)
3018	Organophosphorus pesticide, liquid, toxic	60	6.1	6.1, 71°(b),(c)
3019	Organotin pesticide, liquid, toxic, flammable	663	6.1+3	6.1, 76°(a)
3019	Organotin pesticide, liquid, toxic, flammable	63	6.1+3	6.1, 76°(b),(c)
3020	Organotin pesticide, liquid, toxic	66	6.1	6.1, 76°(a)
3020	Organotin pesticide, liquid, toxic	60	6.1	6.1, 76°(b),(c)
3021	Pesticide, liquid, flammable, toxic, n.o.s.	336	3+6.1	3, 57°(a),(b)
3022	1,2-Butylene oxide, stabilized	339	3	3, 3°(b)
3023	tert-Octyl mercaptan	63	6.1+3	6.1, 20°(b)
3024	Coumarin derivative pesticide, liquid, flammable, toxic	336	3+6.1	3, 47°(a),(b)
3025	Coumarin derivative pesticide, liquid, toxic, flammable	663	6.1+3	6.1, 77°(a)
3025	Coumarin derivative pesticide, liquid, toxic, flammable	63	6.1+3	6.1, 77°(b),(c)

Substance Identification No. (Lower part) (a)	Name of substance (b)	Hazard Identification No. (Upper part) (c)	Label (d)	Class and item number (e)
3026	Coumarin derivative pesticide, liquid, toxic	66	6.1	6.1, 77°(a)
3026	Coumarin derivative pesticide, liquid, toxic	60	6.1	6.1, 77°(b),(c)
3027	Coumarin derivative pesticide, solid, toxic	66	6.1	6.1, 77°(a)
3027	Coumarin derivative pesticide, solid, toxic	60	6.1	6.1, 77°(b),(c)
3049	Metal alkyl halides, n.o.s. or metal aryl halides, n.o.s.	X333	4.2+4.3	4.2, 32°(a)
3050	Metal alkyl hydrides, n.o.s. or metal aryl hydrides, n.o.s.	X333	4.2+4.3	4.2, 32°(a)
3051	Aluminium alkyls	X333	4.2+4.3	4.2, 31°(a)
3052	Aluminium alkyl halides	X333	4.2+4.3	4.2, 32°(a)
3053	Magnesium alkyls	X333	4.2+4.3	4.2, 31°(a)
3054	Cyclohexyl mercaptan	30	3	3, 31°(c)
3055	2-(2-Aminoethoxy) ethanol	80	8	8, 53°(c)
3056	n-Heptaldehyde	30	3	3, 31°(c)
3065	Alcoholic beverages	30	3	3, 31°(c)
3065	Alcoholic beverages	33	3	3, 3°(b)
3066	Paint or paint related material	80	8	8, 66°(b),(c)
3070	Dichlorodifluoromethane and ethylene oxide mixtures with not more than 12% ethylene oxide by mass	26	6.1	2, 4°(at)
3071	Mercaptan mixture, liquid, toxic, flammable, n.o.s.	63	6.1+3	6.1, 20°(b)
3071	Mercaptans, liquid, toxic, flammable, n.o.s.	63	6.1+3	6.1, 20°(b)
3073	Vinylpyridines, inhibited	639	6.1+3	6.1, 11°(b)
3076	Aluminium alkyl hydrides	X333	4.2+4.3	4.2, 32°(a)
3077	Environmentally hazardous substance, solid, n.o.s.	90	9	9, 12°(c)
3078	Cerium	423	4.3	4.3, 13°(b)

Substance Identification No. (Lower part) (a)	Name of substance (b)	Hazard Identification No. (Upper part) (c)	Label (d)	Class and item number (e)
3079	Methacrylonitrile, inhibited	336	3+6.1	3,11°(a)
3080	Isocyanates, toxic, flammable, n.o.s.	63	6.1+3	6.1, 18°(b)
3080	Isocyanate solution, toxic, flammable, n.o.s.	63	6.1+3	6.1, 18°(b)
3084	Corrosive solid, oxidizing, n.o.s.	885	8+05	8, 73°(a)
3084	Corrosive solid, oxidizing, n.o.s.	85	8+05	8, 73°(b)
3085	Oxidizing solid, corrosive, n.o.s.	58	5.1+8	5.1, 31°(b),(c)
3086	Toxic solid, oxidizing, n.o.s.	665	6.1+05	6.1, 68°(a)
3086	Toxic solid, oxidizing, n.o.s.	65	6.1+05	6.1, 68°(b)
3087	Oxidizing solid, toxic, n.o.s.	56	5.1+6.1	5.1, 29°(b),(c)
3088	Self-heating solid, organic, n.o.s.	40	4.2	4.2, 5°(b),(c)
3089	Metal powder, flammable, n.o.s.	40	4.1	4.1, 13°(b),(c)
3092	1-Methoxy-2-propanol	30	3	3, 31°(c)
3093	Corrosive liquid, oxidizing, n.o.s.	885	8+05	8, 74°(a)
3093	Corrosive liquid, oxidizing, n.o.s.	85	8+05	8, 74°(b)
3094	Corrosive liquid, water-reactive n.o.s.	823	8+4.3	8, 72°(a),(b)
3095	Corrosive solid, self-heating, n.o.s.	84	8+4.2	8, 69°(b)
3096	Corrosive solid, water-reactive, n.o.s.	842	8+4.3	8, 71°(b)
3109	Organic peroxide, type F, liquid	539	5.2+ (8)	5.2, 9°(b)
3110	Organic peroxide, type F, solid	539	5.2	5.2, 10°(b)
3119	Organic peroxide, type F, liquid, temperature controlled	539	5.2	5.2, 19°(b)
3120	Organic peroxide, type F, solid, temperature controlled	539	5.2	5.2, 20°(b)
3122	Toxic liquid, oxidizing, n.o.s.	665	6.1+05	6.1, 68°(a)
3122	Toxic liquid, oxidizing, n.o.s.	65	6.1+05	6.1, 68°(b)
3123	Toxic liquid, water-reactive, n.o.s.	623	6.1+4.3	6.1, 44°(a),(b)
3124	Toxic solid, self-heating, n.o.s.	664	6.1+4.2	6.1, 66°(a)
3124	Toxic solid, self-heating, n.o.s.	64	6.1+4.2	6.1, 66°(b)

Substance Identification No. (Lower part) (a)	Name of substance (b)	Hazard Identification No. (Upper part) (c)	Label (d)	Class and item number (e)
3125	Toxic solid, water-reactive, n.o.s.	642	6.1+4.3	6.1, 44°(b),(c)
3126	Self-heating solid, corrosive, organic, n.o.s.	48	4.2+8	4.2, 9°(b),(c)
3128	Self-heating solid, toxic, organic, n.o.s.	46	4.2+6.1	4.2, 7°(b),(c)
3129	Water-reactive liquid, corrosive, n.o.s.	X382	4.3+8	4.3, 25°(a)
3129	Water-reactive liquid, corrosive, n.o.s.	382	4.3+8	4.3, 25°(b),(c)
3130	Water-reactive liquid, toxic, n.o.s.	X362	4.3+6.1	4.3, 23°(a)
3130	Water-reactive liquid, toxic, n.o.s.	362	4.3+6.1	4.3, 23°(b),(c)
3131	Water-reactive solid, corrosive, n.o.s.	482	4.3+8	4.3, 24°(b),(c)
3134	Water-reactive solid, toxic, n.o.s.	462	4.3+6.1	4.3, 22°(b),(c)
3138	Ethylene, acetylene and propylene in mixture, refrigerated liquid	223	3	2, 8°(b)
3140	Alkaloids or alcaloid salts, liquid, n.o.s.	66	6.1	6.1, 90°(a)
3140	Alkaloids or alcaloid salts, liquid, n.o.s.	60	6.1	6.1, 90°(b),(c)
3141	Antimony compound, inorganic, liquid, n.o.s.	60	6.1	6.1, 59°(c)
3142	Disinfectant, liquid, toxic, n.o.s.	66	6.1	6.1, 25°(a)
3142	Disinfectant, liquid, toxic, n.o.s.	60	6.1	6.1, 25°(b),(c)
3143	Dye, solid, toxic, n.o.s.	66	6.1	6.1, 25°(a)
3143	Dye, solid, toxic, n.o.s.	60	6.1	6.1, 25°(b),(c)
3143	Dye intermediate, solid, toxic, n.o.s.	66	6.1	6.1, 25°(a)
3143	Dye intermediate, solid, toxic, n.o.s.	60	6.1	6.1, 25°(b),(c)
3144	Nicotine compound or nicotine preparation, liquid, n.o.s.	66	6.1	6.1, 90°(a)
3144	Nicotine compound or nicotine preparation, liquid, n.o.s.	60	6.1	6.1, 90°(b),(c)
3145	Alkylphenols, liquid, n.o.s.	88	8	8, 40°(a)
3145	Alkylphenols, liquid, n.o.s.	80	8	8, 40°(b),(c)

Substance Identification No. (Lower part) (a)	Name of substance (b)	Hazard Identification No. (Upper part) (c)	Label (d)	Class and item number (e)
3146	Organotin compound, solid, n.o.s.	66	6.1	6.1, 32°(a)
3146	Organotin compound, solid, n.o.s.	60	6.1	6.1, 32°(b),(c)
3147	Dye or dye intermediate, solid, corrosive, n.o.s.	80	8	8, 65°(b),(c)
3148	Water-reactive liquid, n.o.s.	X323	4.3	4.3, 21°(a)
3148	Water-reactive liquid, n.o.s.	323	4.3	4.3, 21°(b),(c)
3149	Hydrogen peroxide and peroxyacetic acid mixture, stabilized	58	5.1+8	5.1, 1°(b)
3151	Polyhalogenated biphenyls, liquid	90	9	9, 2°(b)
3151	Polyhalogenated terphenyls, liquid	90	9	9, 2°(b)
3152	Polyhalogenated biphenyls, solid	90	9	9, 2°(b)
3152	Polyhalogenated terphenyls, solid	90	9	9, 2°(b)
3155	Pentachlorophenol	60	6.1	6.1, 17°(b)
3159	1,1,1,2-Tetrafluorethane (R 134a)	20	2	2, 3°(a)
3170	Aluminium dross	423	4.3	4.3, 13°(b),(c)
3172	Toxins, extracted from living sources, n.o.s.	66	6.1	6.1, 90°(a)
3172	Toxins, extracted from living sources, n.o.s.	60	6.1	6.1, 90°(b),(c)
3174	Titanium disulphide	40	4.2	4.2, 13°(c)
3175	Solids containing flammable liquid, n.o.s.	40	4.1	4.1, 4°(c)
3176	Flammable solid, organic, molten, n.o.s.	44	4.1	4.1, 5°
3178	Flammable solid, inorganic, n.o.s.	40	4.1	4.1, 11°(b),(c)
3179	Flammable solid, toxic, inorganic, n.o.s.	46	4.1+6.1	4.1, 16°(b),(c)
3180	Flammable solid, corrosive, inorganic, n.o.s.	48	4.1+8	4.1, 17°(b),(c)
3181	Metal salts of organic compounds, flammable, n.o.s.	40	4.1	4.1, 12°(b),(c)
3182	Metal hydrides, flammable, n.o.s.	40	4.1	4.1, 14°(b),(c)
3183	Self-heating liquid, organic, n.o.s.	30	4.2	4.2, 6°(b),(c)

Substance Identification No. (Lower part) (a)	Name of substance (b)	Hazard Identification No. (Upper part) (c)	Label (d)	Class and item number (e)
3184	Self-heating liquid, toxic, organic, n.o.s.	36	4.2+6.1	4.2, 8°(b),(c)
3185	Self-heating liquid, corrosive, organic, n.o.s.	38	4.2+8	4.2, 10°(b),(c)
3186	Self-heating liquid, inorganic, n.o.s.	30	4.2	4.2, 17°(b),(c)
3187	Self-heating liquid, toxic, inorganic, n.o.s.	36	4.2+6.1	4.2, 19°(b),(c)
3188	Self-heating liquid, corrosive, inorganic, n.o.s.	38	4.2+8	4.2, 21°(b),(c)
3189	Metal powder, self-heating, n.o.s.	40	4.2	4.2, 12°(b),(c)
3190	Self-heating solid, inorganic, n.o.s.	40	4.2	4.2, 16°(b),(c)
3191	Self-heating solid, toxic, inorganic, n.o.s.	46	4.2+6.1	4.2, 18°(b),(c)
3192	Self-heating solid, corrosive, inorganic, n.o.s.	48	4.2+8	4.2, 20°(b),(c)
3194	Pyrophoric liquid, inorganic, n.o.s.	333	4.2	4.2, 17°(a)
3203	Pyrophoric organometallic compound, n.o.s.	X333	4.2+4.3	4.2, 33°(a)
3205	Alkaline-earth metal alcoholates, n.o.s.	40	4.2	4.2, 14°(b),(c)
3206	Alkali metal alcoholates, n.o.s.	48	4.2+8	4.2, 15°(b),(c)
3207	Organometallic compound, or solution, or dispersion, water-reactive, flammable, n.o.s.	X323	4.3+3	4.3, 3°(a)
3207	Organometallic compound, or solution, or dispersion, water-reactive, flammable, n.o.s.	323	4.3+3	4.3, 3°(b),(c)
3208	Metallic substance, water-reactive, n.o.s.	423	4.3	4.3, 13°(b),(c)
3209	Metallic substance, water-reactive, self-heating, n.o.s.	423	4.3+4.2	4.3, 14°(b),(c)
3210	Chlorates, inorganic, aqueous solution, n.o.s.	50	5.1	5.1, 11°(b)
3211	Perchlorates, inorganic, aqueous solution, n.o.s.	50	5.1	5.1, 13°(b)

Substance Identification No. (Lower part) (a)	Name of substance (b)	Hazard Identification No. (Upper part) (c)	Label (d)	Class and item number (e)
3212	Hypochlorites, inorganic, n.o.s.	50	5.1	5.1, 15°(b)
3213	Bromates, inorganic, aqueous solution n.o.s.	50	5.1	5.1, 16°(b),(c)
3214	Permanganates, inorganic, aqueous solution, n.o.s.	50	5.1	5.1, 17°(b)
3215	Persulphates, inorganic, n.o.s.	50	5.1	5.1, 18°(c)
3216	Persulfates, inorganic, aqueous solution, n.o.s.	50	5.1	5.1, 18°(c)
3217	Percarbonates, inorganic, n.o.s.	50	5.1	5.1, 19°(c)
3218	Nitrates, inorganic, aqueous solution, n.o.s.	50	5.1	5.1, 22°(b),(c)
3219	Nitrites, inorganic, aqueous solution, n.o.s.	50	5.1	5.1, 23°(b),(c)
3220	Pentafluoroethane (R 125)	20	2	2, 5°(a)
3241	2-Bromo-2-nitropropane-1,3-diol	60	6.1	6.1, 17°(c)
3243	Solids containing toxic liquid, n.o.s.	60	6.1	6.1, 65°(b)
3244	Solids containing corrosive liquid, n.o.s.	80	8	8, 65°(b)
3246	Methanesulphonyl chloride	668	6.1 + 8	6.1, 27°(a)
3247	Sodium peroxoborate, anhydrous	50	5.1	5.1, 27°(b)
3248	Medicine, liquid, flammable, toxic, n.o.s.	336	3 + 6.1	3, 19°(b)
3248	Medicine, liquid, flammable, toxic, n.o.s.	36	3 + 6.1	3, 32°(c)
3249	Medicine, solid, toxic, n.o.s.	60	6.1	6.1, 90°(b),(c)
3250	Chloroacetic acid, molten	68	6.1 + 8	6.1, 24°(b)2.
3253	Disodium trioxosilicate pentahydrate	80	8	8, 41°(c)
3256	Elevated temperature liquid, flammable, n.o.s.	30	3	3, 61°(c)
3259	Amines or polyamines, solid, corrosive, n.o.s.	88	8	8, 52°(a)
3259	Amines or polyamines, solid, corrosive, n.o.s.	80	8	8, 52°(b),(c)

Substance Identification No. (Lower part) (a)	Name of substance (b)	Hazard Identification No. (Upper part) (c)	Label (d)	Class and item number (e)
3260	Corrosive solid, acidic, inorganic, n.o.s.	88	8	8, 16°(a)
3260	Corrosive solid, acidic, inorganic, n.o.s.	80	8	8, 16°(b),(c)
3261	Corrosive solid, acidic, organic, n.o.s.	88	8	8, 39°(a)
3261	Corrosive solid, acidic, organic, n.o.s.	80	8	8, 39°(b),(c)
3262	Corrosive solid, basic, inorganic, n.o.s.	88	8	8, 46°(a)
3262	Corrosive solid, basic, inorganic, n.o.s.	80	8	8, 46°(b),(c)
3263	Corrosive solid, basic, organic, n.o.s.	88	8	8, 55°(a)
3263	Corrosive solid, basic, organic, n.o.s.	80	8	8, 55°(b),(c)
3264	Corrosive liquid, acidic, inorganic, n.o.s.	88	8	8, 17°(a)
3264	Corrosive liquid, acidic, inorganic, n.o.s.	80	8	8, 17°(b),(c)
3265	Corrosive liquid, acidic, organic, n.o.s.	88	8	8, 40°(a)
3265	Corrosive liquid, acidic, organic, n.o.s.	80	8	8, 40°(b),(c)
3266	Corrosive liquid, basic, inorganic, n.o.s.	88	8	8, 47°(a)
3266	Corrosive liquid, basic, inorganic, n.o.s.	80	8	8, 47°(b),(c)
3267	Corrosive liquid, basic, organic, n.o.s.	88	8	8, 56°(a)
3267	Corrosive liquid, basic, organic, n.o.s.	80	8	8, 56°(b),(c)
3271	Ethers, n.o.s.	33	3	3, 3°(f)
3271	Ethers, n.o.s.	30	3	3, 31°(c)
3272	Esters, n.o.s.	33	3	3, 3°(b)
3272	Esters, n.o.s.	30	3	3, 31°(c)
3273	Nitriles, flammable, toxic, n.o.s.	336	3+6.1	3, 11°(a),(b)

Substance Identification No. (Lower part) (a)	Name of substance (b)	Hazard Identification No. (Upper part) (c)	Label (d)	Class and item number (e)
3274	Alcoholates solution, n.o.s.	338	3+8	3, 24°(b)
3275	Nitriles, toxic, flammable, n.o.s.	663	6.1+3	6.1, 11°(a)
3275	Nitriles, toxic, flammable, n.o.s.	63	6.1+3	6.1, 11°(b)
3276	Nitriles, toxic, n.o.s.	66	6.1	6.1, 12°(a)
3276	Nitriles, toxic, n.o.s.	60	6.1	6.1, 12°(b),(c)
3277	Chloroformates, toxic, corrosive, n.o.s.	68	6.1+8	6.1, 27°(b)
3278	Organophosphorus compound, toxic, n.o.s.	66	6.1	6.1, 23°(a)
3278	Organophosphorus compound, toxic, n.o.s.	60	6.1	6.1, 23°(b),(c)
3279	Organophosphorus compound, toxic, flammable, n.o.s.	663	6.1+3	6.1, 22°(a)
3279	Organophosphorus compound, toxic, flammable, n.o.s.	63	6.1+3	6.1, 22°(b)
3280	Organoarsenic compound, n.o.s.	66	6.1	6.1, 34°(a)
3280	Organoarsenic compound, n.o.s.	60	6.1	6.1, 34°(b),(c)
3281	Metal carbonyls, n.o.s.	66	6.1	6.1, 36°(a)
3281	Metal carbonyls, n.o.s.	60	6.1	6.1, 36°(b),(c)
3282	Organometallic compound, toxic, n.o.s.	66	6.1	6.1, 35°(a)
3282	Organometallic compound, toxic, n.o.s.	60	6.1	6.1, 35°(b),(c)
3283	Selenium compound, n.o.s.	66	6.1	6.1, 55°(a)
3283	Selenium compound, n.o.s.	60	6.1	6.1, 55°(b),(c)
3284	Tellurium compound, n.o.s.	60	6.1	6.1, 57°(b),(c)
3285	Vanadium compound, n.o.s.	60	6.1	6.1, 58°(b),(c)
3286	Flammable liquid, toxic, corrosive, n.o.s.	368	3+6.1+8	3, 27°(a),(b)
3287	Toxic liquid, inorganic, n.o.s.	66	6.1	6.1, 65°(a)
3287	Toxic liquid, inorganic, n.o.s.	60	6.1	6.1, 65°(b),(c)
3288	Toxic solid, inorganic, n.o.s.	66	6.1	6.1, 65°(a)

Substance Identification No. (Lower part) (a)	Name of substance (b)	Hazard Identification No. (Upper part) (c)	Label (d)	Class and item number (e)
3288	Toxic solid, inorganic, n.o.s.	60	6.1	6.1, 65°(b),(c)
3289	Toxic liquid, corrosive, inorganic, n.o.s.	668	6.1+8	6.1, 67°(a)
3289	Toxic liquid, corrosive, inorganic, n.o.s.	68	6.1+8	6.1, 67°(b)
3290	Toxic solid, corrosive, inorganic, n.o.s.	668	6.1+8	6.1, 67°(a)
3290	Toxic solid, corrosive, inorganic, n.o.s.	68	6.1+8	6.1, 67°(b)
3291	Clinical waste, unspecified, n.o.s.	606	6.2	6.2, 4°(b)
3293	Hydrazine, aqueous solution	60	6.1	6.1, 65°(c)
3294	Hydrogen cyanide, solution in alcohol	663	6.1+3	6.1, 2°
3295	Hydrocarbons, liquid, n.o.s.	33	3	3, 1°(a), 2°(a),(b), 3°(b)
3295	Hydrocarbons, liquid, n.o.s.	30	3	3, 31°(c)
3301	Corrosive liquid, self-heating, n.o.s.	884	8+4.2	8, 70°(a)
3301	Corrosive liquid, self-heating, n.o.s.	84	8+4.2	8, 70°(b)

CORRIGENDUM concerning the English text of the amendments proposed by the Government of France to annexes A and B, as amended, to the European Agreement of 30 September 1957 concerning the International Carriage of Dangerous Goods by Road (ADR)¹

The text of the corrigendum reads as follows:

page 5 : to be replaced by the replacement page at the end of this corrigendum (No change, but more legible copy).

page 42 : item 14°, in the NOTE, replace "above 23° C" by "of not less than 23° C".

page 72 : marginal 2308 (4): the substance identification number and names should not be underlined

pages 86, 87, 89:

Under items 33° (b), 34° (b), 43° (b) and 44° (b), in designations for samples, only the word "sample" should be underlined.

page 99: Marginal 2431: add the following amendment:

"Under items 15° (b) and 15° (c), the name for number 3206 should read "Alkali metal alcoholates, self-heating, corrosive, n.o.s."

page 101 : Add the following amendment at the bottom of the page: "At the end of the NOTE under 1° (b), replace '3104(2)(g)' by '3106(2)(g)'".

page 103: Marginal 2553(4), replace "7°(h)" by "7°(b)".

page 160 : Marginal 2654 (4) (b); in the eleventh line, replace "would penetrate" by "could penetrate".

page 165: In the second paragraph of the page, at the first line only, replace "[see marginal 2002(8)]" by "[see marginal 2000(5)]".

page 174 : Marginal 2800(3) (b) (first sentence) and 2800 (3) (c) (first sentence):
Replace "(a), (b) or (c)" by "(a), (b) and (c)".

page 204 : Marginal 2800(4) (b), at the end, replace "3537" by "3532".

page 253 : Under "class 6.2" replace "1°-4°" by "3° and 4°".

¹ United Nations, *Treaty Series*, vol. 619, p. 77; for subsequent actions, see references in Cumulative Indexes Nos. 9 and 11 to 21, as well as annex A in volumes 1259, 1279, 1283, 1297, 1344, 1394, 1395, 1430, 1489, 1505, 1553, 1580, 1663, 1679, 1696, 1701, 1719, 1723, 1724, 1732, 1775, 1777 and 1843.

page 259 : Add the following amendment (english only):

"Marginal 3659 (1): For 'For all types of IBCs' read 'For all types of flexible IBCs'."

page 261: In the table, add another line for class 4.1 to read: "Other substances", with a cross in the 50 kg column.

Add a new amendment to read as follows:

In NOTE 1 to marginal 10 011, in the table "Examples of these calculations", replace "31°" by "33°(c)" for the class 3 line.

page 271: Marginal 10 221 (2), add the following sentence:

"When the transport unit comprises a motor vehicle and a trailer, the requirement applies when the motor vehicle is registered after 30 June 1993."

page 273: Delete the amendment concerning marginal 10 381.

page 277: In the note below the table, replace "UN No." by "Identification number".

page 278: Add the following amendment: "Marginal 11 500(5): replace '10 500(8)' by '10 500(9)'".

page 285: Add the following amendment:

"41 509: replace 'substances of 34°' by 'substances of 31°, 32°, 41° and 42°', and add at the end "The same rule shall apply if a transport unit is loaded with more than 2 000 kg of substances of 33°, 34°, 43° and 44°".

page 287: Marginal 51 220(2): instead of "unchanged" read: "In the existing text, replace "prescribed in paragraph (1) above" by "prescribed in marginal 220531(2)".

page 288: Marginal 52500: delete "as well as vehicles and containers for the carriage of solid dangerous substances in bulk".

page 289: In the left margin, at the bottom of the page, replace "62 200" by "61 200".

page 298: marginal 62 412, third line: replace "loading" by "carrying".

page 302: Under Section 2, insert "(Only the general provisions of Part I apply)".

page 308: Add the following amendment:

"Marginal 21X 434: Instead of 'referred to in 21X 410(b) and (f)' read 'referred to in 21X 410 (f)'".

page 312: Marginal 21X910, replace "4°(c)" by "4°".

page 313: Add the following amendments:

"Marginal 213 010(c), replace "32" (c)" by "31" (c)".

Appendix B.1d

Marginal 214 250(2): replace "-hydrofluoric acids of marginal 2801, 6" by "-substances of marginal 2801, 6".

page 316: Marginal 220 403 and
footnote

page 331: Marginal 220 900

page 332: Marginal 221 000,
footnote 1/

} Replace "country" by "State".

page 338: In the description of the combination "69", insert "or slightly toxic" after "toxic".

REPLACEMENT PAGE

[- 5 -]

Table (see marginal 2002 (8) b) 2.3.1)

Class and letter	4.1(b)	4.1(c)	4.2(b)	4.2(c)	4.3(a)	4.3(b)	4.3(c)	6.1(a) ⁱⁱⁱ	6.1(b) ⁱⁱⁱ	6.1(c) ⁱⁱⁱ	6.1(a) ⁱⁱⁱ DERMAL	6.1(b) ⁱⁱⁱ ORAL	6.1(b) ⁱⁱⁱ	6.1(c) ⁱⁱⁱ	8(a) ⁱⁱⁱ	8(b) ⁱⁱⁱ	8(c) ⁱⁱⁱ	9
3(a) ^a	SOL LIQ 4.1 ⁱⁱⁱ 3(a)	SOL LIQ 4.1 ⁱⁱⁱ 3(a)	SOL LIQ 4.2 ⁱⁱⁱ 3(a)	SOL LIQ 4.2 ⁱⁱⁱ 3(a)	4.3(a)	4.3(a)	4.3(a)	SOL LIQ 6.1(a) 3(a)	SOL LIQ 6.1(b) 3(a)	SOL LIQ 6.1(c) 3(a)	3(a)	3(a)	3(a)	3(a)	3(a)	3(a)	3(a)	3(a)
3(b) ^a	SOL LIQ 4.1 ⁱⁱⁱ 3(b)	SOL LIQ 4.1 ⁱⁱⁱ 3(b)	SOL LIQ 4.2 ⁱⁱⁱ 3(b)	SOL LIQ 4.2 ⁱⁱⁱ 3(b)	4.3(b)	4.3(b)	4.3(b)	SOL LIQ 6.1(a) 3(b)	SOL LIQ 6.1(b) 3(b)	SOL LIQ 6.1(c) 3(b)	3(a)	3(a)	3(b)	3(b)	3(b)	3(b)	3(b)	3(b)
3(c) ^a	SOL LIQ 4.1 ⁱⁱⁱ 3(c)	SOL LIQ 4.1 ⁱⁱⁱ 3(c)	SOL LIQ 4.2 ⁱⁱⁱ 3(c)	SOL LIQ 4.2 ⁱⁱⁱ 3(c)	4.3(c)	4.3(c)	4.3(c)	SOL LIQ 6.1(a) 3(c)	SOL LIQ 6.1(b) 3(c)	SOL LIQ 6.1(c) 3(c)	6.1(a)	6.1(a)	6.1(b)	3(c)	8(b)	8(b)	3(c)	3(c) ⁱⁱⁱ
4.1(b)			4.2(b)	4.2(b)	4.3(a)	4.3(a)	4.3(a)	6.1(a)	6.1(a)	4.1(b)	6.1(a)	6.1(a)	SOL LIQ 4.1(b) 8.1(a)	SOL LIQ 4.1(b) 8.1(a)	8(a)	SOL LIQ 4.1(b) 8(b)	SOL LIQ 4.1(b) 8(b)	4.1(b)
4.1(c)			4.2(b)	4.2(c)	4.3(a)	4.3(b)	4.3(c)	6.1(a)	6.1(a)	4.1(c)	6.1(a)	6.1(a)	6.1(b)	4.1(c) 8.1(c)	8(a)	8(b)	4.1(c) 8.1(c)	4.1(c) ⁱⁱⁱ
4.2(b)					4.3(a)	4.3(b)	4.3(c)	6.1(a)	6.1(a)	4.2(b)	6.1(a)	6.1(a)	4.2(b)	4.2(c)	8(a)	4.2(b)	4.2(c)	4.2(b)
4.2(c)				4.2(c)	4.3(a)	4.3(b)	4.3(c)	6.1(a)	6.1(a)	6.1(a)	6.1(a)	6.1(a)	4.2(b)	4.2(c)	8(a)	8(b)	4.2(c)	4.2(c) ⁱⁱⁱ
4.3(a)						4.3(a)	4.3(a)	6.1(a)	6.1(a)	4.3(a)	6.1(a)	6.1(a)	4.3(a)	4.3(a)	4.3(a)	4.3(a)	4.3(a)	4.3(a)
4.3(b)						4.3(b)	4.3(b)	6.1(a)	6.1(a)	4.3(b)	6.1(a)	6.1(a)	4.3(b)	4.3(b)	8(a)	4.3(b)	4.3(b)	4.3(b)
4.3(c)						6.1(b)	6.1(b)	6.1(a)	6.1(a)	4.3(c)	6.1(a)	6.1(a)	6.1(b)	4.3(c)	8(a)	8(b)	4.3(c)	4.3(c) ⁱⁱⁱ
6.1(a) ⁱⁱⁱ	7)							6.1(a)	6.1(a)		6.1(a)	6.1(a)	6.1(a)	6.1(a)	6.1(a)	6.1(a)	6.1(a)	6.1(a)
6.1(b) ⁱⁱⁱ	7)							6.1(a)	6.1(a)		6.1(a)	6.1(a)	6.1(b)	6.1(b)	8(a)	6.1(b)	6.1(b)	6.1(b)
6.1(c) ⁱⁱⁱ	7)							6.1(a)	6.1(a)		6.1(a)	6.1(a)	6.1(c)	6.1(c)	8(a)	8(b)	6.1(c)	6.1(c) ⁱⁱⁱ
6.1(a) ⁱⁱⁱ DERMAL															SOL LIQ 6.1(a) 8(a)	6.1(a)	6.1(a)	6.1(a)
6.1(b) ⁱⁱⁱ ORAL															SOL LIQ 6.1(a) 8(a)	6.1(a)	6.1(a)	6.1(a)
6.1(b) ⁱⁱⁱ INHAL															SOL LIQ 6.1(a) 8(a)	6.1(a)	6.1(a)	6.1(a)
6.1(b) ⁱⁱⁱ DERMAL															SOL LIQ 6.1(a) 8(a)	6.1(a)	6.1(a)	6.1(a)
4.1(b) ⁱⁱⁱ ORAL															8(a)	SOL LIQ 6.1(a) 8(b)	6.1(a)	6.1(a)
6.1(c) ⁱⁱⁱ															8(a)	8(b)	8(c)	6.1(c) ⁱⁱⁱ
8(a) ⁱⁱⁱ																		8(a)
8(b) ⁱⁱⁱ																		8(b)
8(c) ⁱⁱⁱ																		8(c) ⁱⁱⁱ

SOL = Solid substances and mixtures
 LIQ = Liquid substances, mixtures and solutions
 DERMAL = Dermal toxicity
 ORAL = Oral toxicity
 INHAL = Inhalation toxicity