ANNEX 7

RESOLUTION MSC.157(78)
(adopted on 20 May 2004)

ADOPTION OF AMENDMENTS TO THE INTERNATIONAL MARITIME DANGEROUS GOODS (IMDG) CODE

THE MARITIME SAFETY COMMITTEE,

RECALLING Article 28(b) of the Convention on the International Maritime Organization concerning the functions of the Committee,

NOTING resolution MSC.122(75) by which it adopted the International Maritime Dangerous Goods Code (hereinafter referred to as "the IMDG Code"), which has become mandatory under chapter VII of the International Convention for the Safety of Life at Sea (SOLAS), 1974, as amended (hereinafter referred to as "the Convention") on 1 January 2004,

NOTING ALSO article VIII(b) and regulation VII/1.1 of the Convention concerning the amendment procedure for amending the IMDG Code,

HAVING CONSIDERED, at its seventy-eighth session, amendments to the IMDG Code, proposed and circulated in accordance with article VIII(b)(i) of the Convention,

1. ADOPTS, in accordance with article VIII(b)(iv) of the Convention, amendments to the IMDG Code, the text of which is set out in the Annex to the present resolution;

2. DETERMINES, in accordance with article VIII(b)(vi)(2)(bb) of the Convention, that the said amendments shall be deemed to have been accepted on 1 July 2005, unless, prior to that date, more than one third of the Contracting Governments to the Convention or Contracting Governments the combined merchant fleets of which constitute not less than 50% of the gross tonnage of the world's merchant fleet, have notified their objections to the amendments;

3. INVITES Contracting Governments to the Convention to note that, in accordance with article VIII(b)(vii)(2) of the Convention, the amendments shall enter into force on 1 January 2006 upon their acceptance in accordance with paragraph 2 above;

4. BEING COGNIZANT that amendments to other modal instruments dealing with the carriage of dangerous goods come into force on 1 January 2005;

5. ENCOURAGES Contracting Governments to the Convention to apply the aforementioned amendments in whole or in part on a voluntary basis as from 1 January 2005;

6. REQUESTS the Secretary-General, in conformity with article VIII(b)(v) of the Convention, to transmit certified copies of the present resolution and the text of the amendments contained in the Annex to all Contracting Governments to the Convention;

7. FURTHER REQUESTS the Secretary-General to transmit copies of this resolution and its Annex to Members of the Organization, which are not Contracting Governments to the Convention.

ANNEX

AMENDMENTS TO THE INTERNATIONAL MARITIME DANGEROUS GOODS (IMDG) CODE*

VOLUME 1

Foreword

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Chapter 1.4 Add to read "**Security provisions**"

1.4.1 General provisions for companies, ships and facilities
1.4.2 General provisions for shore-side personnel
1.4.3 Provisions for high consequence dangerous goods

Chapter 2.4

Add:
2.4.5 Classification of organometallic substances
2.9.2 Amend to read "Assignment to class 9"

Chapter 4.2

4.2.6 Amend to read "Additional provisions for the use of road tank vehicles"
4.2.7 Delete

Chapter 4.3 Amend to read: "**Use of bulk containers**"

4.3.1 Amend to read "General provisions"
4.3.2 Amend to read "Additional provisions applicable to bulk goods of classes 4.2, 4.3, 5.1, 6.2, 7 and 8"

Chapter 5.5 Delete the whole chapter

PART 6 Amend title to read: "**… PORTABLE TANKS, MULTIPLE-ELEMENT GAS CONTAINERS (MEGCs) AND ROAD TANK VEHICLES**"

Chapter 6.2

6.2.2 Delete "certified"
6.2.3 Delete "certified"

* As adopted by resolution MSC.122(75)

Chapter 6.9 Add to read "**Provisions for the design, construction, inspection and testing of bulk containers**"

6.9.1 Definitions
6.9.2 Application and general provisions
6.9.3 Provisions for the design, construction, inspection and testing of freight containers used as bulk containers
6.9.4 Provisions for the design, construction, inspection and approval of bulk containers other than freight containers"

Chapter 7.9 Amend to read "Exemptions, Approvals and Certificates"

Add:
7.9.1 Exemptions

Add:
7.9.2 Approvals (including permits, authorizations or agreements) and certificates

Add:
7.9.3 Addresses of competent authorities

PART 1

Chapter 1.1

1.1.1.3 Amend "materials" to read "material".

(new)
1.1.1.5.2 Add "chapter 1.4 (security provisions) except 1.4.1.1, which will be mandatory;" and renumber the remaining paragraphs.

(old)
1.1.1.5.5 Delete "chapter 3.5 (Transport schedules for class 7 - radioactive material)".

1.1.1.5.8 Add "section 7.9.3 (addresses of competent authorities)."; and renumber accordingly.

1.1.2.2.1 Regulation 1, delete second footnote and replace "†" in 1.3.3 with "*"

1.1.3.1.1 Amend to read "These provisions establish standards of safety which provide an acceptable level of control of the radiation, criticality and thermal hazards to persons, property and the environment that are associated with the transport of radioactive material. These provisions, which are based upon the International Atomic Energy Agency's (IAEA's) Regulations for the safe transport of radioactive material, 1996 edition, (Revised) Safety Standards Series No. TS-R-1 (ST-1, Revised) (ISBN 92-0-104996-X), establish requirements particularly for shipowners and for those handling packages containing radioactive materials in ports and on board ships without necessarily consulting IAEA regulations.

However, the published IAEA regulations also include Schedules of requirements for transport of specified types of radioactive material consignments, which are not included in this Code. These schedules summarize the requirements of those regulations, but do not contain any additional provisions. Schedules may be consulted for quick reference, but do not take precedence over the provisions of TS-R-1 or of this Code."

1.1.3.6 Add a new sub-section to read as follows:

"**1.1.3.6** ***Non-compliance***

1.1.3.6.1 In the event of non-compliance with any limit in this Code applicable to radiation level or contamination:

.1 the consignor shall be informed of the non-compliance by the carrier if the non-compliance is identified during transport; or by the consignee if the non-compliance is identified on receipt;

.2 the carrier, consignor or consignee, as appropriate shall:

(i) take immediate steps to mitigate the consequences of the non-compliance;

(ii) investigate the non-compliance and its causes, circumstances and consequences;

(iii) take appropriate action to remedy the causes and circumstances that led to the non-compliance and to prevent a recurrence of similar circumstances that led to the non-compliance; and

(iv) communicate to the relevant competent authority(ies) the causes of the non-compliance and on corrective or preventive actions taken or to be taken; and

.3 communication of the non-compliance to the consignor and relevant competent authority(ies), respectively, shall be made as soon as practicable and shall be immediate whenever emergency exposure has developed or is developing.".

1.1.4.1 Amend to read "… or vapours under normal conditions of transport".

Chapter 1.2

1.2.1 In the definition of "tank", delete the words "with a capacity of not less than 450 litres" and add at the end "and has a capacity of not less than 450 litres when used for the transport of gases of class 2.".

- Insert a new definition for "*Routine maintenance of flexible IBCs*" under "*Intermediate Bulk Containers (IBCs)"* as follows:

  "*Routine maintenance of flexible IBCs* is the routine performance on plastics or textile flexible IBCs of operations, such as:

  a) cleaning; or

  b) replacement of non-integral components, such as non-integral liners and closure ties, with components conforming to the original manufacturer's specification;

  provided that these operations do not adversely affect the containment function of the flexible IBC or alter the design type.

  ***NOTE**: For rigid IBCs, see* "*Routine maintenance of rigid IBCs*".".

- Replace "*Routine maintenance of IBCs*" with "*Routine maintenance of rigid IBCs*" and add a note at the end of the existing text to read as follows:

  *"**NOTE**: For flexible IBCs, see "Routine maintenance of flexible IBCs".".*

- In the definition of "*Repaired IBCs*", insert the word "rigid" before "IBCs" in the last but one sentence and add the following sentence at the end of the existing text: "Flexible IBCs are not repairable, unless approved by the competent authority.".

  Delete the last three sentences of the definition of "Road tank vehicle".

  Delete existing definition of "Bulk packagings".

  Insert the following new definition:

  "Bulk containers are containment systems (including any liner or coating) intended for the transport of solid substances which are in direct contact with the containment system. Packagings, intermediate bulk containers (IBCs), large packagings and portable tanks are not included.

  Bulk containers are:

  - of a permanent character and accordingly strong enough to be suitable for repeated use;

  - specially designed to facilitate the transport of goods by one or more means of transport without intermediate reloading;

  - fitted with devices permitting ready handling; and

  - have a capacity of not less than 1 cubic metre.

Examples of bulk containers are freight containers, offshore bulk containers, skips, bulk bins, swap bodies, trough-shaped containers, roller containers, load compartments of vehicles."

In the definition of "Aerosols", for "6.2.2" read "6.2.4".

In the definition of "Recycled plastics material" for "6.1.1.2.5" read "6.1.1.3".

Amend existing definition to read:

Elevated temperature substance means a substance which is transported or offered for transport:

- in the liquid state at a temperature at or above 100 °C;
- in the liquid state with a flashpoint above 61°C that is intentionally heated to a temperature above its flashpoint; or
- in a solid state and at a temperature at or above 240 °C.

Amend the last sentence of the definition of *"Freight container"* to read:

"For freight containers for the transport of radioactive material, see 2.7.2."

Insert the following new definitions:

Offshore bulk container means a bulk container specially designed for repeated use for the transport of dangerous goods to, from and between offshore facilities. An offshore bulk container is designed and constructed in accordance with MSC/Circ.860 "Guidelines for the approval of containers handled in open seas".

GHS means the *Globally Harmonized System of Classification and Labelling of Chemicals*, published by the United Nations as document ST/SG/AC.10/30.".

1.2.2.4 Amend "1.2.2.4.1, 1.2.2.4.2 and 1.2.2.4.3" to read as sub-paragraphs .1, .2 and .3, begin each with "in" and end .1 and .2 with a semi-colon.

Chapter 1.3

1.3.1.1 Amend "shall" to read "should". Add the following sentence at the end: "Training requirements specific to security of dangerous goods in Chapter 1.4. should also be addressed.".

1.3.1.4.1 amend to read "identification".

1.3.1.4.2 for "bulk packaging" read "bulk container".

1.3.1.4.6 } for "discharging" read "discharge".

1.3.1.4.7 }

1.3.1.3 Insert a new 1.3.1.3 to read as follows:

"Records of all safety training undertaken should be kept by the employer and made available to the employee if requested.".

Renumber existing 1.3.1.3 to 1.3.1.6 as 1.3.1.4 to 1.3.1.7.

In (new) 1.3.1.5, amend references in headings to "1.3.1.6" to read "1.3.1.7";

In (new) 1.3.1.7.8 add "(CSC)" after "Containers".

Chapter 1.4

Add a new chapter as follows:

"CHAPTER 1.4

SECURITY PROVISIONS

Introductory note

The provisions of this chapter address the security of dangerous goods in transport by sea. National competent authorities may apply additional security provisions, which should be considered when offering or transporting dangerous goods. The provisions of this chapter remain recommendatory except 1.4.1.1 (see 1.1.1.5).

1.4.1 General provisions for companies, ships and port facilities

1.4.1.1 The relevant provisions of chapter XI-2 of SOLAS 74, as amended, and of part A of the International Ship and Port Facility Security (ISPS) Code apply to companies, ships and port facilities engaged in the transport of dangerous goods and to which regulation XI-2 of SOLAS 74, as amended, apply taking into account the guidance given in part B of the ISPS Code.

1.4.1.2 For cargo ships of less than 500 gross tons engaged in the transport of dangerous goods, it is recommended that Contracting Governments to SOLAS 74, as amended, consider security provisions for these cargo ships.

1.4.1.3 Any shore-based company personnel, ship based personnel and port facility personnel engaged in the transport of dangerous goods should be aware of the security requirements for such goods, in addition to those specified in the ISPS Code, and commensurate with their responsibilities.

1.4.1.4 The training of the company security officer, shore-based company personnel having specific security duties, port facility security officer and port facility personnel having specific duties, engaged in the transport of dangerous goods, should also include elements of security awareness related to those goods.

1.4.1.5 All shipboard personnel and port facility personnel who are not mentioned in 1.4.1.4 and are engaged in the transport of dangerous goods should be familiar with the provisions of the relevant security plans related to those goods, commensurate with their responsibilities.

1.4.2 General provisions for shore-side personnel

1.4.2.1 For the purpose of this subsection, *Shore-side personnel* covers individuals mentioned in 1.3.1.2. However, the provisions of 1.4.2 do not apply to:

- the company security officer and appropriate shore-based company personnel mentioned in 13.1 of part A of the ISPS Code,

- the ship security officer and the shipboard personnel mentioned in 13.2 and 13.3 of part A of the ISPS Code,

- the port facility security officer, the appropriate port facility security personnel and the port facility personnel having specific security duties mentioned in 18.1 and 18.2 of part A of the ISPS Code.

For the training of those officers and personnel, refer to the International Ship and Port Facility Security (ISPS) Code.

1.4.2.2 Shore-side personnel engaged in transport by sea of dangerous goods should consider security provisions for the transport of dangerous goods commensurate with their responsibilities.

1.4.2.3 Security training

1.4.2.3.1 The training of shore-side personnel, as specified in chapter 1.3, shall also include elements of security awareness.

1.4.2.3.2 Security awareness training should address the nature of security risks, recognizing security risks, methods to address and reduce risks and actions to be taken in the event of a security breach. It should include awareness of security plans (if appropriate, refer to 1.4.3) commensurate with the responsibilities of individuals and their part in implementing security plans.

1.4.2.3.3 Such training should be provided or verified upon employment in a position involving dangerous goods transport and should be periodically supplemented with retraining.

1.4.2.3.4 Records of all security training undertaken should be kept by the employer and made available to the employee if requested.

1.4.3 Provisions for high consequence dangerous goods

1.4.3.1 For the purposes of this section, high consequence dangerous goods are those which have the potential for misuse in a terrorist incident and which may, as a result, produce serious consequences such as mass casualties or mass destruction. The following is an indicative list of high consequence dangerous goods:

Class 1	Division 1.1 explosives
Class 1	Division 1.2 explosives
Class 1	Division 1.3 compatibility group C explosives
Class 1	Division 1.5 explosives
Class 2.1	Flammable gases in quantities greater than 3000 l in a road tank vehicle, a railway tank wagon or a portable tank
Class 2.3	Toxic gases
Class 3	Flammable liquids of packing groups I and II in quantities greater than 3000 l in a road tank vehicle, a railway tank wagon or a portable tank
Class 3	Desensitized liquid explosives
Class 4.1	Desensitized solid explosives
Class 4.2	Goods of packing group I in quantities greater than 3000 kg or 3000 l in a road tank vehicle, a railway tank wagon, a portable tank or a bulk container
Class 4.3	Goods of packing group I in quantities greater than 3000 kg or 3000 l in a road tank vehicle, a railway tank wagon, a portable tank or a bulk container
Class 5.1	Oxidizing liquids of packing group I in quantities greater than 3000 l in a road tank vehicle, a railway tank wagon or a portable tank
Class 5.1	Perchlorates, ammonium nitrate and ammonium nitrate fertilizers in quantities greater than 3000 kg or 3000 l in a road tank vehicle, a railway tank wagon, a portable tank or a bulk container
Class 6.1	Toxic substances of packing group I
Class 6.2	Infectious substances of category A

Class 7 Radioactive material in quantities greater than 3000 A1 (special from) or 3000 A2, as applicable, in type B or type C packages

Class 8 Corrosive substances of packing group I in quantities greater than 3000 kg or 3000 l in a road tank vehicle, a railway tank wagon, a portable tank or a bulk container

For purposes of non-proliferation of nuclear material, the Convention on Physical Protection of Nuclear Material applies to international transport, supported by IAEA INFCIRC/225 (Rev.4).

1.4.3.2 The provisions of this section do not apply to ships and to port facilities (see the ISPS Code for ship security plan and for port facility security plan).

1.4.3.3 Consignors and others engaged in the transport of high consequence dangerous goods should adopt, implement and comply with a security plan that addresses at least the elements specified in 1.4.3.4.

1.4.3.4 The security plan should comprise at least the following elements:

.1 specific allocation of responsibilities for security to competent and qualified persons with appropriate authority to carry out their responsibilities;

.2 records of dangerous goods or types of dangerous goods transported;

.3 review of current operations and assessment of vulnerabilities, including intermodal transfer, temporary transit storage, handling and distribution, as appropriate;

.4 clear statements of measures, including training, policies (including response to higher threat conditions, new employee/employment verification, etc.), operating practices (e.g. choice/use of routes where known, access to dangerous goods in temporary storage, proximity to vulnerable infrastructure, etc.), equipment and resources that are to be used to reduce security risks;

.5 effective and up to date procedures for reporting and dealing with security threats, breaches of security or security-related incidents;

.6 procedures for the evaluation and testing of security plans and procedures for periodic review and update of the plans;

.7 measures to ensure the security of transport information contained in the plan; and

.8 measures to ensure that the distribution of transport information is limited as far as possible. (Such measures shall not preclude provision of transport documentation required by chapter 5.4 of this Code.)

PART 2

Chapter 2.0

2.0.3.6 Add "*" after "3 I" in first column.

2.1.0 In Note 1, amend to read: "It is intended that these entries should only be used when …".

Chapter 2.3

2.3.1.4 In the last sentence, replace "and UN 3343" with ", UN 3343, UN 3357 and UN 3379".

2.3.2.5 In the last sentence, delete "paragraph".

Chapter 2.4

Add a new introductory note to read as follows:

"2.4.0 Since organometallic substances can be classified in classes 4.2 or 4.3 with additional subsidiary risks, depending on their properties, a specific classification flowchart for these substances is given in 2.4.5."

2.4.2.3.2.2 Amend the two first sentences of this paragraph to read as follows:

"Self-reactive substances permitted for transport in packagings are listed in 2.4.2.3.2.3, those permitted for transport in IBCs are listed in packing instruction IBC520 and those permitted for transport in portable tanks are listed in portable tank instruction T23. For each permitted substance listed, the appropriate generic entry of the Dangerous Goods List (UN 3221 to UN 3240) is assigned, and appropriate subsidiary risks and remarks providing relevant transport information are given.".

2.4.2.3.2.3 In the title, add at the end: "in packagings".

Add the following text before the existing Note 1: "In the column "Packing Method" codes "OP1" to "OP8" refer to packing methods in packing instruction P520. Self-reactive substances to be transported shall fulfil the classification and the control and emergency temperatures (derived from the SADT) as listed. For substances permitted in IBCs, see packing instruction IBC520, and for those permitted in tanks, see portable tank instruction T23".

Delete Note 2. As a consequence, "**Note 1**" becomes "**Note**".

Within the table in section 2.4.2.3.2.3, in the second of the entries for UN 3226, for "1,1-AZODI(HEXAHYDROBENZONITRILE)" read "1,1'-AZODI(HEXAHYDROBENZONITRILE)".

Within the table in section 2.4.2.3.2.3, in the fourth of the entries for UN 3236 on that page, for "3-(HYDROXYETHOXY)-4-(PYRROLIDIN-1YL)-BENZENEDIAZONIUM ZINC CHLORIDE" read "3-(2-HYDROXYETHOXY)-4-(PYRROLIDIN-1-YL)- BENZENEDIAZONIUM ZINC CHLORIDE".

2.4.2.3.2.4 Amend the beginning of the first sentence to read: "Classification of self-reactive substances not listed in 2.4.2.3.2.3, packing instruction IBC520 or portable tank instruction T23 and assignment to…".

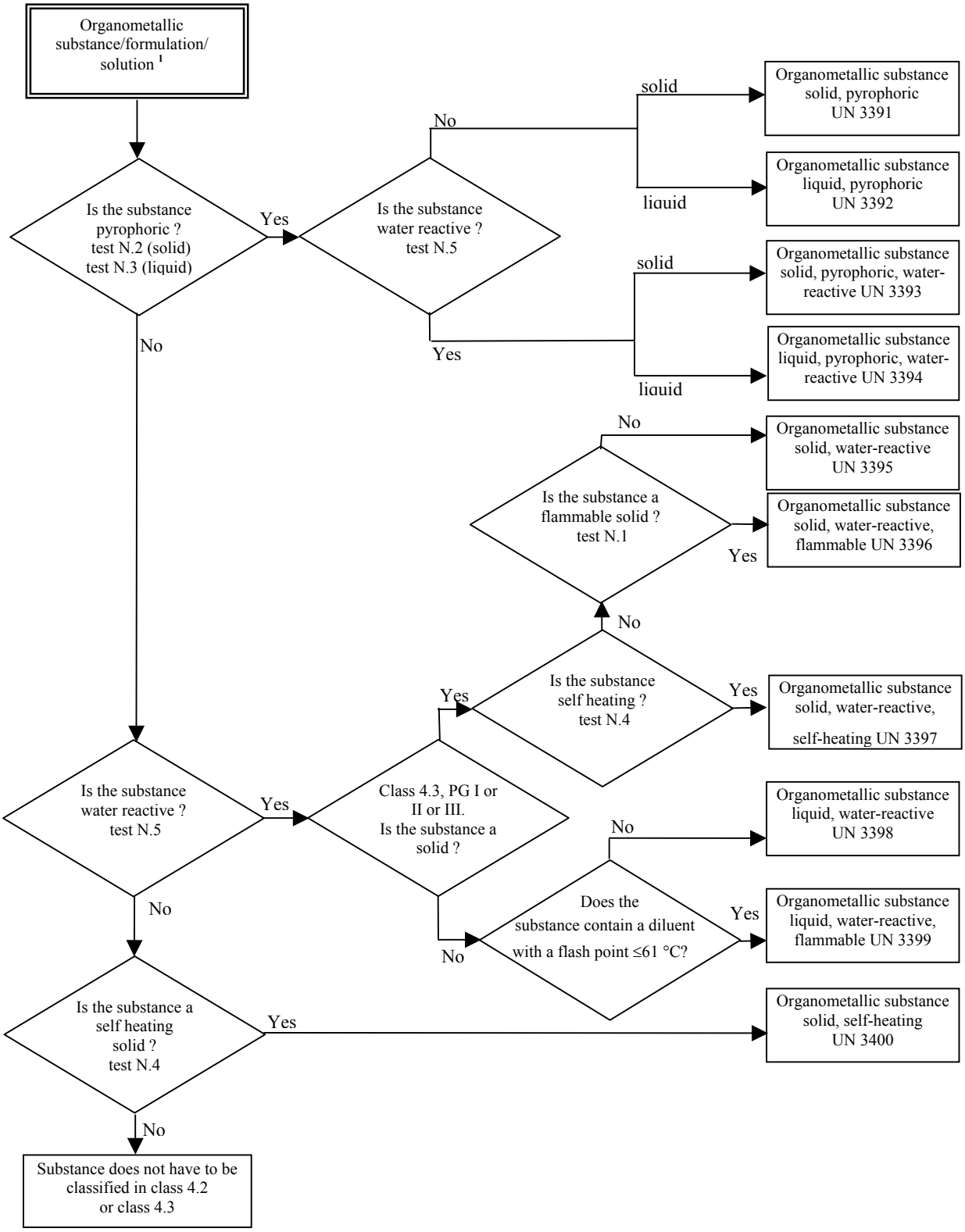
2.4.2.4.1.1 Amend the list of UN numbers at the end to read ", UN 3370, UN 3376 and UN 3380."

2.4.5 Add a new paragraph 2.4.5 and a new flowchart as follows:

"**2.4.5 Classification of organometallic substances**

Depending on their properties, organometallic substances may be classified in classes 4.2 or 4.3, as appropriate, in accordance with the following flowchart:

Flowchart scheme for organometallic substances[1, 2]



[1] *If applicable and testing is relevant, taking into account reactivity properties, class 6.1 and class 8 properties shall be considered according to the Precedence of hazards table 2.0.3.6.*

[2] *Test methods N.1 to N.5 can be found in the United Nations Manual of Tests and Criteria, Part III, Section 33.*

Chapter 2.5

2.5.3.2.3 Amend the two first sentences of this paragraph to read as follows:

"Organic peroxides permitted for transport in packagings are listed in 2.5.3.2.4, those permitted for transport in IBCs are listed in packing instruction IBC520 and those permitted for transport in portable tanks are listed in portable tank instruction T23. For each permitted substance listed, the generic entry of the Dangerous Goods List (UN 3101 to UN 3120) is assigned, appropriate subsidiary risks and remarks providing relevant transport information are given.".

2.5.3.2.4 In the title add, at the end: "in packagings".

Replace the existing note under the title with the following text:

"Note: Packing Method" codes "OP1" to "OP8" refer to packing methods in packing instruction P520. Peroxides to be transported shall fulfil the classification and the control and emergency temperatures (derived form the SADT) as listed. For substances permitted in IBCs, see packing instruction IBC520, and for those permitted in tanks, see portable tank instruction T23."

In the table:
In the column "Subsidiary risks and remarks", delete "30)".
Amend the entries listed below as follows:

List of currently assigned organic peroxides

Number (generic entry)	ORGANIC PEROXIDE	Concentration (%)	Diluent type A (%)	Diluent type B (%)	Inert solid (%)	Water (%)	Packing Method	Control Temperature (°C)	Emergency temperature (°C)	Subsidiary risks and remarks
3101	tert-AMYL PEROXY-3,5,5-TRIMETHYLHEXANOATE	≤ 100					OP5			3)
	tert-BUTYL PEROXYACETATE	>52-77	≥ 23				OP5			3)
	1,1-DI-(tert-BUTYLPEROXY)CYCLOHEXANE	> 80 – 100					OP5			3)
	1,1-DI-(tert-BUTYLPEROXY)-3,3,5-TRIMETHYLCYCLOHEXANE	>90-100					OP5			3)
	METHYL ETHYL KETONE PEROXIDE(S)	see remark 8)	≥ 48				OP5			3) 8) 13)
	2,5-DIMETHYL-2,5-DI-(tert-BUTYLPEROXY)HEXYNE-3	≥ 86 – 100					OP5			3)
3102	tert-BUTYL MONOPEROXYMALEATE	>52-100					OP5			3)
	,,,									
	3-CHLOROPEROXYBENZOIC ACID	>57-86			≥ 14		OP1			3)
	DIBENZOYL PEROXIDE	>51-100			≤ 48		OP2			3)
	DIBENZOYL PEROXIDE	>77-94				≥ 6	OP4			3)
	DI-4-CHLOROBENZOYL PEROXIDE	≤ 77				≥ 23	OP5			3)
	DI-2,4-DICHLOROBENZOYL PEROXIDE	≤ 77				≥ 23	OP5			3)
	2,2- DIHYDROPEROXYPROPANE	≤ 27			≤ 73		OP5			3)
	2,5-DIMETHYL-2,5-DI-(BENZOYLPEROXY)HEXANE	>82-100					OP5			3)
	DI-(2-PHENOXYETHYL) PEROXYDICARBONATE	>85-100					OP5			3)
	DISUCCINIC ACID PEROXIDE	>72-100					OP4			3) 17)
3103	tert-AMYL PEROXYBENZOATE	≤ 100					OP5			
	tert-AMYLPEROXY ISOPROPYL CARBONATE	≤ 77	≥ 23				OP5			
	n-BUTYL-4,4-DI-(tert-BUTYLPEROXY)VALERATE	>52-100					OP5			
	tert-BUTYL HYDROPEROXIDE	>79-90				≥ 10	OP5			13)
	tert-BUTYL HYDROPEROXIDE + DI-tert-BUTYL PEROXIDE	< 82 + >9				≥ 7	OP5			13)
	tert-BUTYL MONOPEROXYMALEATE	≤ 52	≥ 48				OP6			
	tert-BUTYL PEROXYACETATE	> 32 – 52	≥ 48				OP6			
	tert-BUTYL PEROXYBENZOATE	> 77 – 100					OP5			
	tert-BUTYLPEROXY ISOPROPYLCARBONATE	≤ 77	≥ 23				OP5			
	tert-BUTYLPEROXY-2-METHYLBENZOATE	≤ 100					OP5			
	1,1-DI-(tert-AMYLPEROXY)CYCLOHEXANE	≤ 82	≥ 18				OP6			
	1,1-DI-(tert-BUTYLPEROXY)-3,3,5-TRIMETHYLCYCLOHEXANE	≤ 77		≥ 23			OP5			
	2,2-DI-(tert-BUTYLPEROXY)BUTANE	≤ 52	≥ 48				OP6			
	1,1-DI-(tert-BUTYLPEROXY)CYCLOHEXANE	> 52-80	≥ 20				OP5			
	1,6-DI-(tert.BUTYLPEROXYCARBONYLOXY) HEXANE	< 72	≥ 28				OP5			
	1,1-DI-(tert-BUTYLPEROXY)-3,3,5-TRIMETHYLCYCLOHEXANE	> 57-90	≥ 10				OP5			
	2,5-DIMETHYL-2,5-DI-(tert-BUTYLPEROXY)HEXYNE-3	> 52-86	≥ 14				OP5			26)
	ETHYL 3,3-DI-(tert-BUTYLPEROXY)BUTYRATE	> 77-100					OP5			
	ORGANIC PEROXIDE, LQUID, SAMPLE						OP2			11)
3104	CYCLOHEXANONE PEROXIDE(S)	≤ 91				≥ 9	OP6			13)
	DIBENZOYL PEROXIDE	≤ 77				≥ 23	OP6			

Number (generic entry)	ORGANIC PEROXIDE	Concentration (%)	Diluent type A (%)	Diluent type B (%)	Inert solid (%)	Water (%)	Packing Method	Control Temperature (°C)	Emergency temperature (°C)	Subsidiary risks and remarks
	2,5-DIMETHYL-2,5-DI(BENZOYLPEROXY)HEXANE	≤ 82				≥ 18	OP5			
	2,5-DIMETHYL-2,5-DIHYDROPEROXYHEXANE	≤ 82				≥ 18	OP6			
	ORGANIC PEROXIDE, SOLID, SAMPLE						OP2			
	ORGANIC PEROXIDE, SOLID, SAMPLE						OP2			11)
3105	ACETYL ACETON PEROXIDE	≤ 42	≥ 48			≥ 8	OP7			2)
	tert-AMYL PEROXY-2-ETHYLHEXYL CARBONATE	≤ 100					OP7			
	tert-AMYL PEROXYACETATE	≤ 62	≥ 38				OP7			
	tert-BUTYL HYDROPEROXIDE	≤ 80	≥ 20				OP7			4) 13)
	tert-BUTYL PEROXYBENZOATE	> 52 – 77	≥ 23				OP7			
	tert-BUTYL PEROXYBUTYL FUMARATE	≤ 52	≥ 48				OP7			
	tert-BUTYL PEROXYCROTONATE	≤ 77	≥ 23				OP7			
	tert-BUTYL PEROXY-2-ETHYLHEXYLCARBONATE	≤ 100					OP7			
	1-(2-tert-BUTYLPEROXY ISOPROPYL)-3-ISOPROPENYLBENZENE	≤ 77	≥ 23				OP7			
	tert-BUTYL PEROXY-3,5,5-TRIMETHYLHEXANOATE	> 32 – 100					OP7			
	CYCLOHEXANONE PEROXIDE(S)	≤ 72	≥ 28				OP7			5)
	DI-tert-BUTYL PEROXYAZELATE	≤ 52	≥ 48				OP7			
	1,1-DI-(tert-BUTYLPEROXY)CYCLOHEXANE	> 42 – 52	≥ 48				OP7			
	DI-(tert-BUTYLPEROXY)PHTHALATE	> 42 –52	≥ 48				OP7			
	2,2-DI-(tert-BUTYLPEROXY)PROPANE	≤ 52	≥ 48				OP7			
	2,5-DIMETHYL-2,5-DI-(tert-BUTYLPEROXY)HEXANE	> 52 – 100					OP7			
	2,5-DIMETHYL-2,5-DI-(3,5,5-TRIMETHYLHEXANOYLPEROXY) HEXANE	≤ 77	≥ 23				OP7			
	ETHYL 3,3-DI-(tert-AMYLPEROXY)BUTYRATE	≤ 67	≥ 33				OP7			
	ETHYL 3,3-DI-(tert-BUTYLPEROXY)BUTYRATE	≤ 77	≥ 23				OP7			
	p-MENTHYL HYDROPEROXIDE	> 72 – 100					OP7			13)
	METHYL ETHYL KETONE PEROXIDE(S)	see remark 9)	≥ 55				OP7			9)
	METHYL ISOBUTYL KETON PEROXIDE(S)	≤ 62	≥ 19				OP7			22)
	PEROXYACETIC ACID, TYPE D, stabilized	≤ 43					OP7			13) 14) 19)
	PINANYL HYDROPEROXIDE	>56 – 100					OP7			13)
	1,1,3,3-TETRAMETHYLBUTYL HYDROPEROXIDE	≤ 100					OP7			
	3,6,9-TRIETHYL-3,6,9-TRIMETHYL-1,4,7-TRIPEROXONANE	≤ 42	≥ 58				OP7			28)
3106	ACETYL ACETONE PEROXIDE	≤ 32 as a paste					OP7			20)
	tert-BUTYL PEROXYBENZOATE	≤ 52			≥ 48		OP7			
	tert-BUTYL PEROXY-2-ETHYLHEXANOATE + 2,2-DI-(tert-BUTYLPEROXY)BUTANE	≤ 12 + ≤ 14	≥ 14		> 60		OP7			
	tert-BUTYLPEROXY STEARYLCARBONATE	≤ 100					OP7			
	3-CHLOROPEROXYBENZOIC ACID	≤ 57			≥ 3	≥ 40	OP7			
	3-CHLOROPEROXYBENZOIC ACID	≤ 77			≥ 6	≥ 17	OP7			
	CYCLOHEXANONE PEROXIDE(S)	≤ 72 as a paste					OP7			5) 20)
	DIBENZOYL PEROXIDE	≤ 62			≥ 28	≥ 10	OP7			
	DIBENZOYL PEROXIDE	> 52 – 62 as a paste					OP7			20)
	DIBENZOYL PEROXIDE	> 35 – 52			≥ 48		OP7			

Number (generic entry)	ORGANIC PEROXIDE	Concentration (%)	Diluent type A (%)	Diluent type B (%)	Inert solid (%)	Water (%)	Packing Method	Control Temperature (°C)	Emergency temperature (°C)	Subsidiary risks and remarks
	1,1-DI-(tert-BUTYLPEROXY)CYCLOHEXANE	≤ 42	≥ 13		≥ 45		OP7			
	DI-(2-tert-BUTYLPEROXYISOPROPYL)BENZENE(S)	> 42 – 100			≤ 57		OP7			
	DI-(tert-BUTYLPEROXY)PHTHALATE	≤ 52 as a paste					OP7			20)
	2,2-DI-(tert-BUTYLPEROXY)PROPANE	≤ 42	≥ 13		≥ 45		OP7			
	DI-4-CHLOROBENZOYL PEROXIDE	≤ 52 as a paste					OP7			20)
	2,2-DI-(4,4-DI(tert-BUTYLPEROXY) CYCLOHEXYL)-PROPANE	≤ 42			≥ 58		OP7			
	DI-2,4-DICHLOROBENZOYL PEROXIDE	≤ 52 as a paste with silicon oil					OP7			
	DI-(1-HYDROXYCYCLOHEXYL)PEROXIDE	≤ 100					OP7			
	DI-ISOPROPYLBENZENE DIHYDROPEROXIDE	≤ 82	≥ 5			≥ 5	OP7			24)
	DILAUROYL PEROXIDE	≤ 100					OP7			
	DI-(4-METHYLBENZOYL) PEROXIDE	≤ 52 as paste with silicon oil					OP7			
	2,5-DIMETHYL-2,5-DI-(BENZOYLPEROXI)HEXANE	≤ 82			≥ 18		OP7			
	2,5-DIMETHYL-2,5-DI-(tert-BUTYLPEROXY)HEXYNE-3	≤ 52			≥ 48		OP7			
	DI-(2-PHENOXYETHYL) PEROXYDICARBONATE	≤ 85				≥ 15	OP7			
	ETHYL 3,3-DI-(tert-BUTYLPEROXY)BUTYRATE	≤ 52			≥ 48		OP7			
3107	tert-AMYL HYDROPEROXIDE	≤ 88	≥ 6			≥ 6	OP8			
	tert-BUTYL CUMYL PEROXIDE	> 42 – 100					OP8			
	tert-BUTYLHYDROPEROXIDE	≤ 79				> 14	OP8			13) 23)
	CUMYL HYDROPEROXIDE	> 90 – 98	≤ 10				OP8			13)
	DI-tert-AMYLPEROXIDE	≤ 100					OP8			
	DIBENZOYL PEROXIDE	> 36 – 42	≥ 18			≤ 40	OP8			
	DI-tert-BUTYL PEROXIDE	> 52 –100					OP8			
	1,1-DI-(tert-BUTYLPEROXY)CYCLOHEXANE	≤ 27	≥ 25				OP8			21)
	DI-(tert-BUTYLPEROXY)PHTHALATE	≤ 42	≥ 58				OP8			
	1,1-DI-(tert-BUTYLPEROXY)-3,3,5-TRIMETHYLCYCLOHEXANE	≤ 57	≥ 43				OP8			
	1,1-DI-(tert-BUTYLPEROXY)-3,3,5-TRIMETHYLCYCLOHEXANE	≤ 32	≥ 26	≥ 42			OP8			
	2,2-DI-(4,4-DI(tert-BUTYLPEROXY) CYCLOHEXYL)PROPANE	≤ 22		≥ 78			OP8			
	METHYL ETHYL KETONE PEROXIDE(S)	see remark 10)	≥ 60				OP8			10)
	PEROXYACETIC ACID, TYPE E, stabilized	≤ 43					OP8			13) 15) 19)
	POLYETHER POLY-tert-BUTYLPEROXYCARBONATE	≤ 52		≥ 23			OP8			
3108	tert-BUTYL CUMYL PEROXIDE	≤ 52			≥ 48		OP8			
	n-BUTYL-4,4-DI-(BUTYLPEROXY)VALERATE	≤ 52			≥ 48		OP8			
	tert-BUTYL MONOPEROXYMALEATE	≤ 52			≥ 48		OP8			
	tert-BUTYL MONOPEROXYMALEATE	≤ 52 as a paste					OP8			
	1-(2-tert-BUTYLPEROXY ISOPROPYL)-3-ISOPROPENYLBENZENE	≤ 42			≥ 58		OP8			
	DIBENZOYL PEROXIDE	≤ 56.5 as a paste				≥ 15	OP8			
	DIBENZOYL PEROXIDE	≤ 52 as a paste					OP8			20)
	2,5-DIMETHYL-2,5-DI-(tert-BUTYLPEROXY)HEXANE	≤ 47 as a paste					OP8			
	2,5-DIMETHYL-2,5-DI-(tert-BUTYLPEROXY)HEXANE	≤ 77			≥ 23		OP8			
3109	tert-BUTYL HYDROPEROXIDE	≤ 72				≥ 28	OP8,			13)
	tert-BUTYL PEROXYACETATE	≤ 32		≥ 68			OP8			
	tert-BUTYL PEROXY-3,5,5-TRIMETHYLHEXANOATE	≤ 32		≥ 68			OP8			

Number (generic entry)	ORGANIC PEROXIDE	Concentration (%)	Diluent type A (%)	Diluent type B (%)	Inert solid (%)	Water (%)	Packing Method	Control Temperature (°C)	Emergency temperature (°C)	Subsidiary risks and remarks
	CUMYL HYDROPEROXIDE	≤ 90	≥ 10				OP8			13) 18)
	DIBENZOYL PEROXIDE	≤ 42 as a stable dispertion in water					OP8			
	DI-tert-BUTYL PEROXIDE	≤ 52		≥ 48			OP8,			25)
	1,1-DI-(tert-BUTYLPEROXY)CYCLOHEXANE	< 42	≥ 58				OP8			
	1,1-DI-(tert-BUTYLPEROXY)CYCLOHEXANE	≤ 13	≥ 13	≥ 74			OP8			
	DILAUROYL PEROXIDE	≤ 42 as a stable dispersion in water					OP8			
	2,5-DIMETHYL-2,5-DI-(tert-BUTYLPEROXY)HEXANE	≤ 52		≥ 48			OP8			
	ISOPROPYLCUMYL HYDROPEROXIDE	≤ 72	≥ 28				OP8			13)
	p-MENTHYL HYDROPEROXIDE	≤ 72	≥ 28				OP8			27)
	PEROXYACETIC ACID, TYPE F, stabilized	≤ 43					OP8			13) 16) 19)
	PINANYL HYDROPEROXIDE	≤ 56	≥ 44				OP8			
3110	DICUMYL PEROXIDE	> 52 – 100			≤ 48		OP8			12)
	1,1-DI-(tert-BUTYLPEROXY)-3,3,5-TRIMETHYLCYCLOHEXANE	≤ 57			≥ 43		OP8			
3111	tert-BUTYL PEROXYISOBUTYRATE	> 52 – 77		≥ 23			OP5	+15	+20	3)
	DIISOBUTYRYL PEROXIDE	> 32 – 52		≥ 48			OP5	- 20	- 10	3)
	ISOPROPYL sec-BUTYL PEROXYDICARBONATE + DI-sec-BUTYL PEROXYDICARBONATE + DI-ISOPROPYL PEROXYDICARBONATE	≤ 52 + ≤ 28 + ≤ 22					OP5	-20	-10	3)
3112	ACETYL CYCLOHEXANESULPHONYL PEROXIDE	≤ 82				≥ 12	OP4	-10	0	3)
	DICYCLOHEXYL PEROXYDICARBONATE	> 91 – 100					OP3	+10	+15	3)
	DIISOPROPYL PEROXYDICARBONATE	> 52 – 100					OP2	- 15	- 5	3)
	DI-(2-METHYLBENZOYL) PEROXIDE	≤ 87				≥ 13	OP5	+ 30	+ 35	3)
3113	tert-AMYL PEROXYPIVALATE	≤ 77		≥ 23			OP5	+10	+ 15	
	tert-BUTYL PEROXYDIETHYLACETATE	≤ 100					OP5	+20	+25	
	tert-BUTYL PEROXY-2-ETHYLHEXANOATE	> 52 – 100					OP6	+20	+25	
	tert-BUTYL PEROXYPIVALATE	> 67 –77	≥ 23				OP5	0	+10	
	DI-sec-BUTYL PEROXYDICARBONATE	> 52 – 100					OP4	-20	-10	
	DI-(2-ETHYLHEXYL)PEROXYDICARBONATE	> 77 – 100					OP5	-20	-10	
	2,5-DIMETHYL-2,5-DI-(2-ETHYLHEXANOYLPEROXY)HEXANE	≤ 100					OP5	+20	+25	
	DI-n-PROPYL PEROXYDICARBONATE	≤ 100					OP3	-25	-15	
	DI-n-PROPYL PEROXYDICARBONATE	≤ 77		≥ 23			OP5	- 20	-10	
	ORGANIC PEROXIDE, LIQUID, SAMPLE, TEMPERATURE CONTROLLED						OP2			11)
3114	DI-(4-tert-BUTYLCYCLOHEXYL)PEROXYDICARBONATE	≤ 100					OP6	+30	+35	
	DICYCLOHEXYL PEROXYDICARBONATE	≤ 91				≥ 9	OP5	+10	+15	
	DIDECANOYL PEROXIDE	≤ 100					OP6	+30	+35	
	DI-n-OCTANOYL PEROXIDE	≤ 100					OP5	+10	+15	
	ORGANIC PEROXIDE, SOLID, SAMPLE, TEMPERATURE CONTROLLED						OP2			11)
3115	ACETYL CYCLOHEXANESULPHONYL PEROXIDE	≤ 32		≥ 68			OP7	-10	0	
	tert-AMYL PEROXY-2-ETHYLHEXANOATE	≤ 100					OP7	+20	+25	

Number (generic entry)	ORGANIC PEROXIDE	Concentration (%)	Diluent type A (%)	Diluent type B (%)	Inert solid (%)	Water (%)	Packing Method	Control Temperature (°C)	Emergency temperature (°C)	Subsidiary risks and remarks
	tert-AMYL PEROXYNEODECANOATE	≤ 77		≥ 23			OP7	0	+10	
	tert-BUTYL PEROXY-2-ETHYLHEXANOATE + 2,2-DI-(tert-BUTYLPEROXY)BUTANE	≤ 31 + ≤ 36		≥ 33			OP7	+35	+40	
	tert-BUTYL PEROXYISOBUTYRATE	≤ 52		≥ 48			OP7	+15	+20	
	tert-BUTYL PEROXYNEODECANOATE	> 77 – 100					OP7	-5	+5	
	tert-BUTYL PEROXYNEODECANOATE	≤ 77		≥ 23			OP7	0	+10	
	tert-BUTYL PEROXYNEOHEPTANOATE	≤ 77	≥ 23				OP7	0	+10	
	tert-BUTYL PEROXYPIVALATE	> 27 – 67		≥ 33			OP7	0	+10	
	CUMYL PEROXYNEODECANOATE	≤ 77		≥ 23			OP7	-10	0	
	CUMYL PEROXYNEOHEPTANOATE	≤ 77	≥ 23				OP7	-10	0	
	CUMYL PEROXYPIVALATE	≤ 77		≥ 23			OP7	-5	+5	
	DIACETONE ALCOHOL PEROXIDES	≤ 57		≥ 26		≥ 8	OP7	+40	+45	6)
	DIACETYLPEROXIDE	≤ 27		≥ 73			OP7	+20	+25	7) 13)
	DI-n-BUTYL PEROXYDICARBONATE	> 27 – 52		≥ 48			OP7	-15	-5	
	DI-sec-BUTYL PEROXYDICARBONATE	≤ 52		≥ 48			OP7	-15	-5	
	DI-(2-ETHOXYETHYL)PEROXYDICARBONATE	≤ 52		≥ 48			OP7	-10	0	
	DI-(2-ETHYLHEXYL)PEROXYDICARRBONATE	≤ 77		≥ 23			OP7	-15	-5	
	DIISOBUTYRYL PEROXIDE	≤ 32		≥ 68			OP7	- 20	- 10	
	DIISOPROPYL PEROXYDICARBONATE	≤ 52		≥ 48			OP7	- 20	- 10	
	DIISOPROPYL PEROXYDICARBONATE	≤ 28	≥ 72				OP7	-15	-5	
	DI-(3-METHOXYBUTYL) PEROXYDICARBONATE	≤ 52		≥ 48			OP7	- 5	+ 5	
	DI-(3-METHYLBENZOYL) PEROXIDE + BENZOYL (3-METHYLBENZOYL) PEROXIDE + DIBENZOYL PEROXIDE	≤ 20 + ≤ 18 + ≤ 4		≥ 58			OP7	+ 35	+ 40	
	DI-(2-NEODECANOYLPEROXYISOPROPYL)BENZENE	≤ 52	≥ 48				OP7	-10	0	
	DI-(3,5,5-TRIMETHYLHEXANOYL) PEROXIDE	> 38 – 82	≥ 18				OP7	0	+10	
	1-(2-ETHYLHEXANOYLPEROXY)-1,3-DIMETHYLBUTYL PEROXYPIVALATE	≤ 52	≥ 45	≥ 10			OP7	-20	-10	
	tert-HEXYL PEROXYNEODECANOATE	≤ 71	≥ 29				OP7	0	+10	
	tert-HEXYL PEROXYPIVALATE	≤ 72		≥ 28			OP7	+10	+15	
	ISOPROPYL sec-BUTYL PEROXYDICARBONATE + DI-sec-BUTYL PEROXYDICARBONATE + DI-ISOPROPYL PEROXYDICARBONATE	≤ 32 + ≤ 12 –18+ ≤ 12 – 15	≤ 38				OP7	- 20	-10	
	METHYLCYCLOHEXANONE PEROXIDE(S)	≤ 67		≥ 33			OP7	+35	+40	
	1,1,3,3-TETRAMETHYLBUTYL PEROXY-2 ETHYLHEXANOATE	≤ 100					OP7	+15	+20	
	1,1,3,3-TETRAMETHYLBUTYL PEROXYNEODECANOATE	≤ 72		≥ 28			OP7	-5	+5	
	1,1,3,3-TETRAMETHYLBUTYL PEROXYPIVALATE	≤ 77	≥ 23				OP7	0	+10	
3116	DICETYL PEROXYDICARBONATE	≤ 100					OP7	+30	+35	
	DIMYRISTYL PEROXYDICARBONATE	≤ 100					OP7	+20	+25	
	DI-n-NONANOYL PEROXIDE	≤ 100					OP7	0	+10	
	DISUCCINIC ACID PEROXIDE	≤ 72				≥ 28	OP7	+10	+15	
3117	tert-BUTYL PEROXY-2-ETHYLHEXANOATE	> 32 – 52		≥ 48			OP8	+30	+35	
	DI-n-BUTYL PEROXYDICARBONATE	≤ 27		≥ 73			OP8	-10	0	

Number (generic entry)	ORGANIC PEROXIDE	Concentration (%)	Diluent type A (%)	Diluent type B (%)	Inert solid (%)	Water (%)	Packing Method	Control Temperature (°C)	Emergency temperature (°C)	Subsidiary risks and remarks
	tert-BUTYL PEROXYNEOHEPTANOATE	≤ 42 as a stable dispersion in water					OP8	0	+10	
	DI-(2-ETHYLHEXYL)PEROXYDICARRBONATE	≤ 62 as a stable dispertion in water					OP8	-15	-5	
	1,1-DIMETHYL-3-HYDROXYBUTYLPEROXYNEOHEPTANOATE	≤ 52	≥ 48				OP8	0	+10	
	DIPROPIONYL PEROXIDE	≤ 27		≥ 73			OP8	+15	+20	
3118	tert-BUTYL PEROXY-2-ETHYLHEXANOATE	≤ 52			≥ 48		OP8	+20	+25	
	tert-BUTYL PEROXYNEODECANOATE	≤ 42 as a stable dispersion in water (frozen)					OP8	0	+10	
	DI-n-BUTYL PEROXYDICARBONATE	≤ 42 as a stable dispersion in water (frozen)					OP8	-15	-5	
	PEROXYLAURIC ACID	≤ 100					OP8	+35	+40	
3119										
	tert-BUTYL PEROXY-2-ETHYLHEXANOATE	≤ 32		≥ 68			OP8	+40	+45	
	tert-BUTYL PEROXYNEODECANOATE	≤ 52 as a stable dispersion in water					OP8	0	+10	
	tert-BUTYL PEROXYNEODECANOATE	≤ 32	≥ 68				OP8	0	+10	
	tert-BUTYL PEROXYPIVALATE	≤ 27		≥ 73			OP8	+30	+35	
	CUMYL PEROXYNEODECANOATE	≤ 52 as a stable dispersion in water					OP8	-10	0	
	DI-(4-tert-BUTYLCYCLOHEXYL)PEROXYDICARBONATE	≤ 42 as a stable dispersion in water					OP8	+30	+35	
	DICETYL PEROXYDICARBONATE	≤ 42 as a stable dispersion in water					OP8	+30	+35	
	DICYCLOHEXYL PEROXYDICARBONATE	≤ 42 as a stable dispersion in water					OP8	+15	+20	
	DI-(2-ETHYLHEXYL)PEROXYDICARRBONATE	≤ 52 as a stable dispersion in water					OP8	-15	-5	
	DIMYRISTYL PEROXYDICARBONATE	≤ 42 as a stable dispersion in water					OP8	+20	+25	
	DI-(3,5,5-TRIMETHYLHEXANOYL) PEROXIDE	≤ 52 as a stable dispersion in water					OP8	+10	+15	
	DI-(3,5,5-TRIMETHYLHEXANOYL) PEROXIDE	≤ 38	≥ 62				OP8	+20	+25	
	1,1,3,3-TETRAMETHYLBUTYL PEROXYNEODECANOATE	≤ 52 as a stable dispersion in water					OP8, N	-5	+5	
3120	DI-(2-ETHYLHEXYL)PEROXYDICARBONATE	≤ 52 as a stable dispersion in water (frozen)					OP8	-15	-5	
Exempt	CYCLOHEXANONEPEROXIDE(S)	≤ 32			≥ 68					29)
	DIBENZOYL PEROXIDE	≤ 35			≥ 65					29)
	DI-(2-tert-BUTYLPEROXYISOPROPYL)BENZENE(S)	≤ 42			≥ 58					29)
	DI-4-CHLOROBENZOYL PEROXIDE	≤ 32			≥ 68					29)
	DICUMYLPEROXIDE	≤ 52			≥ 48					29)

Remarks on 2.5.3.2.4

1) Diluent type B may always be replaced by diluent type A. The boiling point of diluent type B shall be at least 60°C higher than the SADT of the organic peroxide
2) Available oxygen ≤ 4.7%
3) "EXPLOSIVE " subsidiary risk label required. (Model No. 1, see 5.2.2.2.2)
4) Diluent may be replaced by di-tert-butyl peroxide
5) Available oxygen ≤ 9%
6) With ≤ 9% hydrogen peroxide; available oxygen ≤ 10%
7) Only non-metallic packagings are allowed
8) Available oxygen > 10% and < 10.7%, with or without water
9) Available oxygen ≤ 10%, with or without water
10) Available oxygen ≤ 8.2%, with or without water
11) See 2.5.3.2.5.1
12) Up to 2000 kg per receptacle assigned to ORGANIC PEROXIDE TYPE F on the basis of large scale trials
13) "CORROSIVE" subsidiary risk label required (Model No; 8, see 5.2.2.2.2)
14) Peroxyacetic acid formulations which fulfil the criteria of 2.5.3.3.2.4
15) Peroxyacetic acid formulations which fulfil the criteria of 2.5.3.3.2.5
16) Peroxyacetic acid formulations which fulfil the criteria of 2.5.3.3.2.6
17) Addition of water to this organic peroxide will decrease its thermal stability
18) No "CORROSIVE" subsidiary risk required
19) Mixtures with hydrogen peroxide, water and acid(s)
20) With diluent type A, with or without water
21) With ≥ 25% diluent type A by mass, and in addition ethylbenzene.
22) With ≥ 19%diluent type A by mass, and in addition methyl isobutyl ketone
23) With < 6% di-tert-butyl peroxide
24) With ≤ 8% 1-isopropylhydroperoxy-4-isopropylhydroxybenzene
25) Diluent type B with boiling point > 110 °C
26) With < 0.5% hydroperoxides content
27) For concentrations more than 56%, a "CORROSIVE" subsidiary risk label is required (Model No. 8, see 5.2.2.2.2)
28) Available active oxygen ≤ 7.6% in diluent Type A having a 95% boil-off point in the range 200 - 260°C
29) Not subject to the provisions of this Code for class 5.2

2.5.3.2.5 Amend the beginning of the first sentence to read: "Classification of organic peroxides not listed in 2.5.3.2.4, packing instruction IBC520 or portable tank instruction T23 and assignment to…".

Chapter 2.6

2.6.1 In Class 6.2 text, replace "or recombinant micro-organisms (hybrid or mutant), that are known or reasonably expected to cause infectious disease in animals or humans." with "and other agents such as prions, which can cause disease in humans or animals.".

2.6.2.1.1 Replace the existing definition for "*LD_{50} for acute oral toxicity*" with the following text: "*LD_{50} (median lethal dose) for acute oral toxicity* is the statistically derived single dose of a substance that can be expected to cause death within 14 days in 50 per cent of young adult albino rats when administered by the oral route. The LD_{50} value is expressed in terms of mass of test substance per mass of test animal (mg/kg).".

2.6.2.2.4.3 Move the footnote "*" as a Note in the main text and replace "Tear gases" with "Tear gas substances".

2.6.3 Replace the existing text with the following:

"**2.6.3 Class 6.2 - Infectious substances**

2.6.3.1 Definitions

For the purposes of this Code:

2.6.3.1.1 *Infectious substances* are substances which are known or are reasonably expected to contain pathogens. Pathogens are defined as micro-organisms (including bacteria, viruses, rickettsiae, parasites, fungi) and other agents such as prions, which can cause disease in humans or animals.

2.6.3.1.2 *Biological products* are those products derived from living organisms which are manufactured and distributed in accordance with the requirements of appropriate national authorities, which may have special licensing requirements, and are used either for prevention, treatment, or diagnosis of disease in humans or animals, or for development, experimental or investigation purposes related thereto. They include, but are not limited to, finished or unfinished products such as vaccines.

2.6.3.1.3 *Cultures* (laboratory stocks) are the result of a process by which pathogens are amplified or propagated in order to generate high concentrations, thereby increasing the risk of infection when exposure to them occurs. This definition refers to cultures prepared for the intentional generation of pathogens and does not include cultures intended for diagnostic and clinical purposes.

2.6.3.1.4 *Genetically modified micro-organisms and organisms* are micro-organisms and organisms in which genetic material has been purposely altered through genetic engineering in a way that does not occur naturally.

2.6.3.1.5 *Medical or clinical wastes* are wastes derived from the medical treatment of animals or humans or from bio-research.

2.6.3.2 Classification of infectious substances

2.6.3.2.1 Infectious substances shall be classified in class 6.2 and assigned to UN 2814, UN 2900 or UN 3373, as appropriate.

2.6.3.2.2 Infectious substances are divided into the following categories:

2.6.3.2.2.1 Category A: An infectious substance which is transported in a form that, when exposure to it occurs, is capable of causing permanent disability, life-threatening or fatal disease to humans or animals. Indicative examples of substances that meet these criteria are given in the table in this paragraph.

Note: *An exposure occurs when an infectious substance is released outside the protective packaging, resulting in physical contact with humans or animals.*

(a) Infectious substances meeting these criteria which cause disease in humans or in both humans and animals shall be assigned to UN 2814. Infectious substances which cause disease only in animals shall be assigned to UN 2900.

(b) Assignment to UN 2814 or UN 2900 shall be based on the known medical history and symptoms of the source human or animal, endemic local conditions, or professional judgement concerning individual circumstances of the human or animal source.

Note 1: *The Proper Shipping Name for UN 2814 is INFECTIOUS SUBSTANCE, AFFECTING HUMANS. The Proper Shipping Name for UN 2900 is INFECTIOUS SUBSTANCE, AFFECTING ANIMALS only*.

Note 2: *The following table is not exhaustive. Infectious substances, including new or emerging pathogens, which do not appear in the table but which meet the same criteria shall be assigned to Category A. In addition, if there is doubt as to whether or not a substance meets the criteria it shall be included in Category A.*

Note 3: *In the following table, the micro-organism names written in italics are bacteria, mycoplasmas, rickettsia or fungi.*

INDICATIVE EXAMPLES OF INFECTIOUS SUBSTANCES INCLUDED IN CATEGORY A IN ANY FORM UNLESS OTHERWISE INDICATED (2.6.3.2.2.1 (a))	
UN Number and Proper Shipping Name	**Micro-organism**
UN 2814 Infectious substance, affecting humans	*Bacillus anthracis (cultures only)* *Brucella abortus (cultures only)* *Brucella melitensis (cultures only)* *Brucella suis (cultures only)* *Burkholderia mallei* - *Pseudomonas mallei* – Glanders *(cultures only)* *Burkholderia pseudomallei – Pseudomonas pseudomallei (cultures only)* *Chlamydia psittaci* - avian strains (cultures only) *Clostridium botulinum (cultures only)* *Coccidioides immitis (cultures only)* *Coxiella burnetii (cultures only)* Crimean-Congo hemorrhagic fever virus Dengue virus (cultures only) Eastern equine encephalitis virus (cultures only) *Escherichia coli*, verotoxigenic (cultures only) Ebola virus Flexal virus *Francisella tularensis (cultures only)* Guanarito virus Hantaan virus Hantaviruses causing hantavirus pulmonary syndrome Hendra virus Hepatitis B virus (cultures only) Herpes B virus (cultures only) Human immunodeficiency virus (cultures only) Highly pathogenic avian influenza virus (cultures only) Japanese Encephalitis virus (cultures only) Junin virus Kyasanur Forest disease virus Lassa virus Machupo virus Marburg virus Monkeypox virus *Mycobacterium tuberculosis (cultures only)* Nipah virus Omsk hemorrhagic fever virus Poliovirus (cultures only) Rabies virus *Rickettsia prowazekii (cultures only)* *Rickettsia rickettsii* (cultures only) Rift Valley fever virus Russian spring-summer encephalitis virus (cultures only) Sabia virus *Shigella dysenteriae type 1 (cultures only)* Tick-borne encephalitis virus (cultures only) Variola virus Venezuelan equine encephalitis virus West Nile virus (cultures only) Yellow fever virus (cultures only) *Yersinia pestis* (cultures only)

INDICATIVE EXAMPLES OF INFECTIOUS SUBSTANCES INCLUDED IN CATEGORY A IN ANY FORM UNLESS OTHERWISE INDICATED (2.6.3.2.2.1 (a))	
UN Number and Proper Shipping Name	**Micro-organism**
UN 2900 Infectious substance, affecting animals only	African horse sickness virus African swine fever virus Avian paramyxovirus Type 1 - Newcastle disease virus Bluetongue virus Classical swine fever virus Foot and mouth disease virus Lumpy skin disease virus *Mycoplasma mycoides* - Contagious bovine pleuropneumonia Peste des petits ruminants virus Rinderpest virus Sheep-pox virus Goatpox virus Swine vesicular disease virus Vesicular stomatitis virus

2.6.3.2.2.2 Category B: An infectious substance which does not meet the criteria for inclusion in Category A. Infectious substances in Category B shall be assigned to UN 3373 except that cultures, as defined in 2.6.3.1.3, shall be assigned to UN 2814 or UN 2900, as appropriate.

Note: *The Proper Shipping Name for UN 3373 is "DIAGNOSTIC SPECIMENS" or "CLINICAL SPECIMENS."*

2.6.3.2.3 Substances which do not contain infectious substances or substances which are unlikely to cause disease in humans or animals are not subject to the provisions of this Code, unless they meet the criteria for inclusion in another class.

2.6.3.2.4 Blood or blood components which have been collected for the purposes of transfusion or for the preparation of blood products to be used for transfusion or transplantation and any tissues or organs intended for use in transplants are not subject to this Code.

2.6.3.2.5 Substances for which there is a low probability that infectious substances are present, or where the concentration is at a level naturally encountered, are not subject to this Code. Examples are: foodstuffs, water samples, living persons and substances which have been treated so that the pathogens have been neutralized or deactivated.

2.6.3.2.6 A live animal which has been intentionally infected and is known or suspected to contain an infectious substance shall only be transported under terms and conditions approved by the competent authority.

2.6.3.3 Biological products

2.6.3.3.1 For the purposes of this Code, biological products are divided into the following groups:

(a) those which are manufactured and packaged in accordance with the requirements of appropriate national authorities and transported for the purposes of final packaging or distribution, and use for personal health care by medical professionals or individuals. Substances in this group are not subject to the provisions of this Code.

(b) those which do not fall under (a) and are known or reasonably believed to contain infectious substances and which meet the criteria for inclusion in Category A or Category B. Substances in this group shall be assigned to UN 2814, UN 2900 or UN 3373, as appropriate.

***Note**: Some licensed biological products may present a biohazard only in certain parts of the world. Competent authorities may require that such biological products comply with local requirements for infectious substances or may impose other restrictions.*

2.6.3.4 Genetically modified micro-organisms and organisms

2.6.3.4.1 Genetically modified micro-organisms not meeting the definition of infectious substance shall be classified in accordance with chapter 2.9.

2.6.3.5 Medical or clinical wastes

2.6.3.5.1 Medical or clinical wastes containing Category A infectious substances or containing Category B infectious substances in cultures shall be assigned to UN 2814 or UN 2900, as appropriate. Medical or clinical wastes containing infectious substances in Category B, other than cultures, shall be assigned to UN 3291.

2.6.3.5.2 Medical or clinical wastes which are reasonably believed to have a low probability of containing infectious substances shall be assigned to UN 3291.

***Note**: The Proper Shipping Name for UN 3291 is CLINICAL WASTE, UNSPECIFIED, N.O.S. or (BIO) MEDICAL WASTE, N.O.S. or REGULATED MEDICAL WASTE, N.O.S.*

2.6.3.5.3 Decontaminated medical or clinical wastes which previously contained infectious substances are not subject to the provisions of this Code unless they meet the criteria for inclusion in another class.".

Chapter 2.7

Except for the definition in 2.7.2, replace, throughout the chapter, "Industrial package Type 1 (Type IP-1)" with "Type IP-1 package", "Industrial package Type 2 (Type IP-2)" with "Type IP-2 package" and "Industrial package Type 3 (Type IP-3)" with "Type IP-3 package".

2.7.1.2 In (e), insert the following text after "naturally occurring radionuclides":

"which are either in their natural state, or have only been processed for purposes other than for extraction of the radionuclides, and"

Add a new (f) as follows:

"(f) Non-radioactive solid objects with radioactive substances present on any surfaces in quantities not exceeding the limit defined in 2.7.2".

2.7.2 In the definition of "package", add "package" after "Type IP-1", "Type IP-2" and "Type IP-3".

2.7.6.1.1 Amend the title of the table to read: "Multiplication factor for tanks, freight containers and unpackaged LSA-I and SCO-I".

2.7.6.2.2 Amend to read: "The criticality safety index for each overpack or freight container shall be determined as the sum of the CSIs of all the packages contained. The same procedure shall be followed for determining the total sum of the CSIs in a consignment or aboard a conveyance."

2.7.7.1.3 For "4.1.7.2.1" read "4.1.9.2.1".

2.7.7.2.1 In the table, for "Cf-252", replace "5×10^{-2}" with "1×10^{-1}" under the heading A_1.

2.7.8.3 Insert the words "or overpack" after "package".

2.7.9.3 (b) Amend to read as follows:

" (b) each instrument or article bears the marking "RADIOACTIVE" except:

i) radioluminescent time-pieces or devices;

ii) consumer products that either have received regulatory approval according to 2.7.1.2(d) or do not individually exceed the activity limit for an exempt consignment in Table 2.7.7.2.1 (column 5), provided such products are transported in a package that bears the marking "RADIOACTIVE" on an internal surface in such a manner that warning of the presence of radioactive material is visible on opening the package, and".

Chapter 2.8

2.8.2.5.3.2 Replace the two last sentences of this subparagraph with the following text:

"For the purposes of testing steel, type S235JR+CR (1.0037 resp. St 37-2), S275J2G3+CR (1.0144 resp. St 44-3), ISO 3574:1999, Unified Numbering System (UNS) G10200 or SAE 1015, and for testing aluminium, non-clad, types 7075-T6 or AZ5GU-T6 shall be used. An acceptable test is prescribed in the *United Nations Manual of Tests and Criteria, Part III, Section 37*".

Chapter 2.9

Replace the existing text with the following:

"Chapter 2.9

2.9.1 Definitions

2.9.1.1 *Class 9 substances and articles (miscellaneous dangerous substances and articles)* are substances and articles which, during transport, present a danger not covered by other classes.

2.9.1.2 *Genetically modified micro-organisms (GMMOs) and genetically modified organisms (GMOs)* are micro-organisms and organisms in which genetic material has been purposely altered through genetic engineering in a way that does not occur naturally.

2.9.2 Assignment to class 9

2.9.2.1 Class 9 includes, *inter alia*:

.1 substances and articles not covered by other classes which experience has shown, or may show, to be of such a dangerous character that the provisions of part A of chapter VII of SOLAS 1974, as amended, shall apply.

.2 substances not subject to the provisions of part A in chapter VII of the aforementioned Convention, but to which the provisions of Annex III of MARPOL 73/78, as amended, apply. The properties or characteristics of each substance are given in the Dangerous Goods List in chapter 3.2 pertaining to the substance or article.

.3 substances that are transported or offered for transport at temperatures equal to, or exceeding, 100°C, in a liquid state, and solids that are transported or offered for transport at temperatures equal to or exceeding 240°C.

.4 GMMOs and GMOs which do not meet the definition of infectious substances (see 2.6.3) but which are capable of altering animals, plants or microbiological substances in a way not normally the result of natural reproduction. They shall be assigned to UN 3245. GMMOs or GMOs are not subject to the provisions of this Code when authorized for use by the competent authorities of the countries of origin, transit and destination."

PART 4

Chapter 4.1

4.1.1 In the NOTE, delete "only".

4.1.1.8 Amend to read as follows:

"Liquids may only be filled into inner packagings which have an appropriate resistance to internal pressure that may be developed under normal conditions of transport. Where pressure may develop in a package by the emission of gas from the contents (as a result of temperature increase or other causes), the packaging, including an IBC, may be fitted with a vent. A venting device shall be fitted if dangerous overpressure may develop due to normal decomposition of substances. However, the gas emitted shall not cause danger on account of its toxicity, its flammability, the quantity released, etc**.** The vent shall be so designed that, when the packaging, including an IBC, is in the attitude in which it is intended to be transported, leakages of liquid and the penetration of foreign matter are prevented under normal conditions of transport."

4.1.1.9 Insert the words "or routinely maintained" after "repaired", in the first and last sentences.

4.1.1.10 In the table in 4.1.1.10, in column 5 of the entry for UN 1155, for "100" read "199".

4.1.1.15 Add a new paragraph 4.1.1.15 as follows:

"For plastics drums and jerricans, rigid plastics IBCs and composite IBCs with plastics inner receptacles, unless otherwise approved by the competent authority, the period of use permitted for the transport of dangerous substances shall be five years from the date of manufacture of the receptacles, except where a shorter period of use is prescribed because of the nature of the substance to be transported".

Renumber subsequent paragraphs and subparagraphs in 4.1.1 accordingly.

4.1.1.17.5 Amend to read " … 5.2.1.3, 5.4.1.5.3, 6.1.2.4, 6.1.5.1.11 and 6.1.5.8."

4.1.2.3 Delete this paragraph and renumber the following paragraphs in 4.1.2 accordingly.

4.1.2.3 (new) Amend to read "IBCs of type 31HZ2 when transporting liquids shall be ...".

4.1.2.4 (new) Replace "rigid plastics and composite IBCs" with " rigid plastics, composite and flexible IBCs" in the first sentence.

4.1.3.4 Add a new line for large packagings, immediately before the line for IBCs, as follows:

"Large packagings
Flexible plastics: 51H (outer packaging)".

4.1.3.5 In the first sentence, delete "outer" (twice) and "in a combination packaging" and add "; 1A2" after "4G" and ""; 1A2V", "1A2U" or "1A2W"" after "4GW" in the examples between brackets.

4.1.3.6 Replace "Cylinders, bundles of cylinders, pressure drums and tubes" with "All cylinders, tubes, pressure drums and bundles of cylinders".

4.1.4.1 **P001** In Composite packagings, for " Plastics receptacle in steel or aluminium crate or box or plastics receptacle in wood, wickerwork hamper, fibreboard or solid plastics box (6HA2, 6HB2, 6HC, 6HD2, 6HG2 or 6HH2)
Glass receptacle in steel, aluminium, fibre, plywood, solid plastics or expanded plastics drum (6PA1, 6PB1, 6PG1, 6PD1, 6PH1 or 6PH2) or in a steel, aluminium, wood, fibreboard or plywood box (6PA2, 6PB2, 6PC, 6PG2 or 6PD2)" read "Plastics receptacle in steel or aluminium crate or box or plastics receptacle in wood, plywood, fibreboard or solid plastics box (6HA2,6HB2, 6HC, 6HD2, 6HG2 or 6HH2)
Glass receptacle in steel, aluminium, fibre, plywood, solid plastics or expanded plastics drum (6PA1, 6PB1, 6PG1, 6PD1, 6PH1 or 6PH2) or in a steel, aluminium, wood or fibreboard box or in a wickerwork hamper (6PA2, 6PB2, 6PC, 6PG2 or 6PD2)".

In PP31, delete UN Nos. 1680, 1689

In PP31, add UN Nos. 3413, 3414

In PP81, for "For UN 1790 with not more than 85% …" read " For UN 1790 with more than 60% but not more than 85% …".

4.1.4.1 **P002** Under "Special packing provisions":
In special packing provision **PP9,** add a new sentence at the end to read as follows:

"For UN 3175 the leakproofness test is not required when the liquids are fully absorbed in solid material contained in sealed bags.".

P002 Add to end of footnotes 4 and 5 "(see 4.1.3.4).".

P002 In PP31, delete UN Nos. 1693, 1694, 1699

P002 In PP31, add UN Nos. 3448, 3449, 3450

P002 Amend "PP78" to read "PP85".

Add, before (new) PP85:
"**PP84** For UN 1057, rigid outer packagings meeting the packing group II performance level shall be used. The packagings shall be designed and constructed and arranged to prevent movement, inadvertent ignition of the devices or inadvertent release of flammable gas or liquid.

P134 Under "Drums", for "fibreboard (4G)" read "fibre (1G)".

P138 Under "Drums" for " fibreboard" read "fibre".

P200 In paragraph (2)(d), insert a note to read as follows:

"***Note:*** *For pressure receptacles which make use of composite materials, the periodic inspection frequencies shall be as determined by the competent authority which approved the receptacles."*

In paragraph (4), under "Requirements for toxic substances with an LC_{50} less than or equal to 200 ml/m^3 (ppm), provision "k", amend the sentence beginning "The pressure receptacle(s) shall" and paragraphs (i) and (ii) to read "Cylinders and individual cylinders in a bundle shall have a test pressure greater than or equal to 200 bar and a minimum wall thickness of 3.5 mm for aluminium alloy or 2 mm for steel. Individual cylinders not complying with this requirement shall be transported in a rigid outer packaging that will adequately protect the cylinder and its fittings and meet the packing group I performance level. Pressure drums shall have a minimum wall thickness of 3.5 mm for aluminium alloy or 2 mm for steel."

In paragraph (4), under "Gas specific provisions", add a new provision "t" to read as follows:

"t: (i) The wall thickness of pressure receptacles shall be not less than 3 mm.

(ii) Prior to transport, it shall be ensured that the pressure has not risen due to potential hydrogen generation.".

In "z", add at the end: "However, UN 1975 Nitric oxide and dinitrogen tetroxide mixtures may be transported in pressure drums."

Indent the last paragraph in line with the one above in "z".

Amendments to the tables:
Rearrange the order of the columns in Tables 2 and 3 according to the sequence in Table 1, (i.e. Cylinders, Tubes, Pressure drums, Bundles of cylinders, MEGCs…).

Delete all asterisks on LC_{50} values and delete the associated footnote.

Amend Table 1 as follows:

UN No.	Column	Amendment
1049 1953, 1955, 3303, 3304, 3305 and 3306	MEGCs LC_{50}	Add "X" Add "≤ 5000"
2600	LC_{50}	Add "between 3760 and 5000"

Amend Table 2 as follows:

UN No.	Column	Amendment
1010	Name and description	replace "BUTADIENE, STABILIZED (mixtures of 1,3-butadiene and hydrocarbons)" with "BUTADIENES AND HYDROCARBON MIXTURE, STABILIZED with more than 40% butadienes".
	"Test pressure, bar"	Delete "10"
	Filling ratio	Delete "0.50"
	Special packing provisions	Add "v,"
1067 1062 1581	Pressure drums	Add "X" Amend name in second column to read: "METHYLBROMIDE with not more than 2% chloropicrin" Add to name in second column: "with more than 2% chloropicrin"
3160, 3162, 3307, 3308, 3309 and 3310	LC_{50}	Add "≤ 5000"
3083	Special packing provisions	Delete "k"

Amend Table 3 as follows:

UN No.	Column	Amendment
1051	LC_{50}	Replace "140" with "40"
1052	Special packing provisions	Add "t"
1746	LC_{50}	Replace "180" with "50"

P203 Replace the existing packing instruction P203 with the following:

P203	**PACKING INSTRUCTION**	**P203**

This instruction applies to Class 2 refrigerated liquefied gases in closed cryogenic receptacles. Refrigerated liquefied gases in open cryogenic receptacles shall conform to the construction, testing and filling requirements approved by the competent authority.

For closed cryogenic receptacles, the general provisions of 4.1.6.1 shall be met.

Closed cryogenic receptacles constructed as specified in chapter 6.2 are authorized for the transport of refrigerated liquefied gases.

The closed cryogenic receptacles shall be so insulated that they do not become coated with frost.

(1) Test pressure

Refrigerated liquids shall be filled in closed cryogenic receptacles with the following minimum test pressures:

(a) For closed cryogenic receptacles with vacuum insulation, the test pressure shall not be less than 1.3 times the sum of the maximum internal pressure of the filled receptacle, including during filling and discharge, plus 100 kPa (1 bar);

(b) For other closed cryogenic receptacles, the test pressure shall be not less than 1.3 times the maximum internal pressure of the filled receptacle, taking into account the pressure developed during filling and discharge.

(2) Degree of filling

For non-flammable, non-toxic refrigerated liquefied gases the volume of liquid phase at the filling temperature and at a pressure of 100 kPa (1 bar) shall not exceed 98% of the water capacity of the pressure receptacle.

For flammable refrigerated liquefied gases the degree of filling shall remain below the level at which the volume of the liquid phase would reach 98% of the water capacity at that temperature, if the contents were raised to the temperature at which the vapour pressure equalled the opening pressure of the relief valve.

(3) Pressure relief devices

Closed cryogenic receptacles shall be fitted with at least one pressure relief device.

(4) Compatibility

Materials used to ensure the leakproofness of the joints or for the maintenance of the closures shall be compatible with the contents. In the case of receptacles intended for the transport of oxidizing gases, (i.e. with a subsidiary risk 5.1) these materials shall not react with these gases in a dangerous manner.

P301 Amend (1) and (2) to read as two paragraphs of continuous text with five and four sentences, respectively.

P400 In paragraph (1), at the end of the second sentence, replace "in strong wood, fibreboard or plastics boxes" with "in strong rigid outer packagings", and in the third sentence, replace "box" with "outer packaging".

At the end of the table, add new special packing provision PP86, as follows:

"**PP86** For UN 3392 and UN 3394, air shall be eliminated from the vapour space by nitrogen or other means.".

P401 Amend to read "Special packing provision".

P402 In PP31, add UN Nos. 1420, 1422.

P403 Under "Inner packagings", replace "have threaded closures" with "be hermetically sealed (e.g. by taping or by threaded closures).".

In PP31, delete UN Nos. 1389, 1392, 1420, 1422.

In PP31, add UN Nos. 3401, 3402, 3403, 3404.

At the end of the table, add a new special packing provision PP83, as follows:

"**Special packing provisions**

PP83 For UN 2813, waterproof bags containing not more than 20 g of substance for the purposes of heat formation may be packaged for transport. Each waterproof bag shall be sealed in a plastics bag and placed within an intermediate packaging. No outer packaging shall contain more than 400 g of substance. Water or liquid which may react with the water reactive substance shall not be included in the packaging.".

P404 In the list of pyrophoric solids, add all UN Nos. from UN 3391 to UN 3400.

At the end of the table, add a new row with the heading "Special packing provisions" and a new special packing provision PP86, as follows:

"**Special packing provisions**

PP86 For UN 3391 and UN 3393, air shall be eliminated from the vapour space by nitrogen or other means.".

P405 Amend to read: "Special packing provision".

P406 In PP26 for "and 3344" read ", 3344 and 3376".

P410 The third line under **Composite packagings** to read "Glass receptacle in steel, aluminium, plywood or fibre drum (6PA1, 6PB1, 6PD1 or 6PG1) or in steel, aluminium, wooden, **wickerwork hamper** or fibreboard box (6PA2, 6PB2, 6PC, 6PD2, or 6PG2) or in solid or expanded plastics packaging (6PH1 or 6PH2)".

Under "Special packing provisions", add PP83, as follows:

PP83 For UN 2813, waterproof bags containing not more than 20 g of substance for the purposes of heat formation may be packaged for transport. Each waterproof bag shall be sealed in a plastics bag and placed within an intermediate packaging. No outer packaging shall contain more than 400 g of substance. Water or liquid which may react with the water reactive substance shall not be included in the packaging.".

P501 Delete "(3N2)", "metal other than steel or aluminium (3N1)" and "60 l".

P502 Delete "metal other than steel or aluminium (3N1)" and "60 l".

P504 Delete special provision PP29, and add PP10 as to read follows:

"**PP10** For UN 2014 and UN 3149, the packaging shall be vented".

In table, amend text under "Composite packagings" in line with amendment to P001 above.

P520 In column OP8, replace "200^{2}" with "400^{2}" and amend note 2 to read:

"[2] 60 kg for jerricans/200 kg for boxes and, for solids, 400 kg in combination packagings with outer packagings comprising boxes (4C1, 4C2, 4D, 4F, 4G, 4H1 and 4H2) and with inner packagings of plastics or fibre with a maximum net mass of 25 kg.".

Amend end of Additional provision 2 to read: "….0.5 kg for solids or 0.5 l for liquids.".

Amend third sentence in second box of text to read: "are listed in 2.4.2.3.2.3 and 2.5.3.2.4.".

P601 In (3), replace "Combination packagings" with "Packagings consisting of:" and amend the first paragraph to read as follows:

"Outer packagings: Steel or plastics drums, removable head (1A2 or 1H2), tested in accordance with the test provisions in 6.1.5 at a mass corresponding to the mass of the assembled package either as a packaging intended to contain inner packagings, or as a single packaging intended to contain solids or liquids, and marked accordingly.".

At the end of the table, add a new row with the heading "Special packing provisions" and a new special packing provision PP82, as follows:

"**Special packing provision**

PP82 For UN 1744, glass inner packagings with a capacity of not more than 1.3 l may be used in a permitted outer packaging with a maximum gross mass of 25 kg.".

P602 In paragraph (3), amend the text between brackets in the first line, to read: "(… 1H1, 6HA1 or 6HH1)".

P620 In .1(iii), insert "either" before "individually" and "or separated" after "wrapped" at the end.

In .2, replace "An outer packaging" with "A rigid outer packaging" in the first sentence and replace "at least" with "not less than" in the second sentence.

In 2, under "Additional provisions", replace existing "(a), (b), (i), (ii), (iii)" with the following:

"(a) Substances consigned at ambient temperatures or at a higher temperature. Primary receptacles shall be of glass, metal or plastics. Positive means of ensuring a leakproof seal shall be provided, e.g. a heat seal, a skirted stopper or a metal crimp seal. If screw caps are used, they shall be secured by positive means, e.g., tape, paraffin sealing tape or a manufactured locking closure;

(b) Substances consigned refrigerated or frozen. Ice, dry ice or other refrigerant shall be placed around the secondary packaging(s) or alternatively in an overpack with one or more complete packages marked in accordance with 6.3.1.1. Interior supports shall be provided to secure secondary packaging(s) or packages in position after the ice or dry ice has dissipated. If ice is used, the outer packaging or overpack shall be leakproof. If dry ice is used, the outer packaging or overpack shall permit the release of carbon dioxide gas. The primary receptacle and the secondary packaging shall maintain their integrity at the temperature of the refrigerant used;

(c) Substances consigned in liquid nitrogen. Plastics primary receptacles capable of withstanding very low temperature shall be used. The secondary packaging shall also be capable of withstanding very low temperatures, and in most cases will need to be fitted over the primary receptacle individually. Provisions for the consignment of liquid nitrogen shall also be fulfilled. The primary receptacle and the secondary packaging shall maintain their integrity at the temperature of the liquid nitrogen.

(d) Lyophilized substances may also be transported in primary receptacles that are flame-sealed glass ampoules or rubber-stoppered glass vials fitted with metal seals.".

P650 Replace the existing P650 with the following:

P650	**PACKING INSTRUCTION**	**P650**
This packing instruction applies to UN 3373		

(1) The packaging shall be of good quality, strong enough to withstand the shocks and loadings normally encountered during transport, including transhipment between cargo transport units and between cargo transport units and warehouses as well as any removal from a pallet or overpack for subsequent manual or mechanical handling. Packagings shall be constructed and closed to prevent any loss of contents that might be caused under normal conditions of transport by vibration or by changes in temperature, humidity or pressure.

(2) The packaging shall consist of three components:

(a) a primary receptacle;

(b) a secondary packaging; and

(c) an outer packaging.

(3) Primary receptacles shall be packed in secondary packagings in such a way that, under normal conditions of transport, they cannot break, be punctured or leak their contents into the secondary packaging. Secondary packagings shall be secured in outer packagings with suitable cushioning material. Any leakage of the contents shall not compromise the integrity of the cushioning material or of the outer packaging.

(4) For transport, the mark illustrated below shall be displayed on the external surface of the outer packaging on a background of a contrasting colour and shall be clearly visible and legible. The width of the line shall be at least 2 mm; the letters and numbers shall be at least 6 mm high.

P650	PACKING INSTRUCTION *(cont'd)*	P650

(5) The completed package shall be capable of successfully passing the drop test in 6.3.2.5 as specified in 6.3.2.3 and 6.3.2.4 of this Code except that the height of the drop shall not be less than 1.2 m.

(6) For liquid substances

(a) The primary receptacle(s) shall be leakproof;

(b) The secondary packaging shall be leakproof;

(c) If multiple fragile primary receptacles are placed in a single secondary packaging, they shall either be individually wrapped or separated to prevent contact between them;

(d) Absorbent material shall be placed between the primary receptacle(s) and the secondary packaging. The absorbent material shall be in a quantity sufficient to absorb the entire contents of the primary receptacle(s) so that any release of the liquid substance will not compromise the integrity of the cushioning material or of the outer packaging;

(e) The primary receptacle or the secondary packaging shall be capable of withstanding, without leakage, an internal pressure of 95 kPa (0.95 bar).

(7) For solid substances

(a) The primary receptacle(s) shall be siftproof;

(b) The secondary packaging shall be siftproof;

(c) If multiple fragile primary receptacles are placed in a single secondary packaging, they shall either be individually wrapped or separated to prevent contact between them.

(8) Refrigerated or frozen specimens: Ice, dry ice and liquid nitrogen

(a) When dry ice or liquid nitrogen is used to keep specimens cold, all applicable provisions of this Code shall be met. When used, ice or dry ice shall be placed outside the secondary packagings or in the outer packaging or an overpack. Interior supports shall be provided to secure the secondary packagings in the original position after the ice or dry ice has dissipated. If ice is used, the outside packaging or overpack shall be leakproof. If carbon dioxide, solid (dry ice) is used, the packaging shall be designed and constructed to permit the release of carbon dioxide gas to prevent a build-up of pressure that could rupture the packagings and shall be marked "Carbon dioxide, solid" or "Dry ice".

(b) The primary receptacle and the secondary packaging shall maintain their integrity at the temperature of the refrigerant used as well as the temperatures and the pressures which could result if refrigeration were lost.

(9) Infectious substances assigned to UN 3373 which are packed and marked in accordance with this packing instruction are not subject to any other provisions of this Code.

(10) Clear instructions on filling and closing such packages shall be provided by packaging manufacturers and subsequent distributors to the consignor or to the person who prepares the package (e.g. patient) to enable the package to be correctly prepared for transport.

P800 In paragraph 2 amend "2.5 l" to read "3.0 l".

P802 Amend PP79 to read: "For UN 1790 with more than 60% but not more than 85% ....". For "PP82" read "PP81".

P903 Add the following paragraph after the sentence "Packaging conforming to the packing group II performance level.":

"In addition, batteries with a strong, impact resistant outer casing of a gross mass of 12 kg or more, and assemblies of such batteries, may be packed in strong outer packagings, in protective enclosures (e.g., in fully enclosed or wooden slatted crates) unpackaged or on pallets. Batteries shall be secured to prevent inadvertent movement, and the terminals shall not support the weight of other superimposed elements.".

P904 Amend (2) to read as follows:

(2)	(iii)	absorbent material placed between the primary receptacle(s) and the secondary packaging. The absorbent material shall be in a quantity sufficient to absorb the entire contents of the primary receptacle(s) so that any release of the liquid substance will not compromise the integrity of the cushioning material or of the outer packaging;
	(iv)	if multiple fragile primary receptacles are placed in a single secondary packaging they shall be individually wrapped or separated to prevent contact between them.
(b)		An outer packaging shall be strong enough for its capacity, mass and intended use and with a smallest external dimension of at least 100 mm.

Additional provision

Dry ice and liquid nitrogen

When carbon dioxide, solid, (dry ice) is used as a refrigerant, the packaging shall be designed and constructed to permit the release of the gaseous carbon dioxide to prevent the build up of pressure that could rupture the packaging.

Substances consigned in liquid nitrogen or dry ice shall be packed in primary receptacles that are capable of withstanding very low temperatures. The secondary packaging shall also be capable of withstanding very low temperatures and, in most cases, will need to be fitted over the primary receptacle individually.

P906 Amend the sub-heading to read: "This instruction applies to UN Nos. 2315, 3151, 3152 and 3452.".

P906(1) and (2) After "PCBs", insert "or polyhalogenated biphenyls or terphenyls" in (1) and ", polyhalogenated biphenyls or terphenyls" in (2).

4.1.4.2 **IBC02** Amend "B11" to read "B20".

IBC06 In IBC06, in number 3, for ".. and 31HZ1)" read ", 31HZ1 and 31HZ2)." And under the heading "Additional provision" for ",21HZ2 and 31HZ2" read "and 21HZ2".

IBC08 In special provision B6, insert "1408," after "1386,".

IBC520 UN 3119 Amend last entry to read:

"1,1,3,3-Trimethylbutyl peroxyneodecanoate, not more than ……".

IBC520 Insert the following new entries and heading:

UN No.	Organic peroxide	Type of IBC	Maximum quantity (litres)	Control temper-ature	Emer-gency temper-ature
3119	Dicyclohexylperoxydicarbonate, not more than 42% as a stable dispersion, in water	31A	1250	+ 10 °C	+ 15 °C
3110	Dicumyl peroxide		Amend "1250" to read "2000"		
3120	ORGANIC PEROXIDE, TYPE F, SOLID, TEMPERATURE CONTROLLED				

4.1.4.3 **LP02** Insert "Flexible plastics (51H)[3]" in the column for "Large outer packagings", and a note 3 under the table, as follows: "[3] To be used with flexible inner packagings only.".

4.1.6.1.2 Replace "material" with "mass" in the third sentence.

In .2, insert "porous" before "mass".

4.1.6.1.4 Amend as follows: "… have been performed. The change of service for compressed and liquefied gases shall be in accordance with ISO 11621:1997, as applicable. In addition, a pressure receptacle …".

The existing second paragraph of 4.1.6.1.4 becomes new paragraph 4.1.6.1.5. Insert "Shut-off" before "valves" at the beginning of the second sentence.

Renumber subsequent paragraphs accordingly.

4.1.6.1.8 Amend the beginning of the first sentence to read as follows: "Valves shall be designed and constructed in such a way that they are inherently able to withstand damage without release of the contents or shall be protected from damage which could cause …".

Delete subparagraph .4 and renumber subsequent subparagraphs accordingly.

Amend the end of the last paragraph to read: "… in .4, for valves with inherent protection, the provisions of annex B …".

4.1.6.1.10 Amend the first sentence to read as follows: "Refillable pressure receptacles, other than cryogenic receptacles, shall be periodically inspected in accordance with 6.2.1.5 and packing instruction P200".

Delete "charged or" before "filled" in the second sentence.

4.1.6.1.11 Amend the first paragraph to read as follows:
"Repairs shall be consistent with the manufacture and testing requirements of the applicable design and construction standards and are only permitted as indicated in the relevant periodic inspection standards specified in 6.2.2.4. Pressure receptacles, other than the jacket of closed cryogenic receptacles, shall not be subjected to repairs of any of the following:".

4.1.6.1.12.2 Replace "and" with "or" at the end.

4.1.6.1.13 Replace "Charged" with "Filled" at the beginning of the first sentence and replace "and" with "or" at the end of subparagraph.3.

4.1.6.2 - 4.1.6.6.3 Delete these sections.

4.1.7.2.1 Amend to read: "The currently assigned organic peroxides specifically listed in packing instruction IBC520 may be transported in IBCs in accordance with this packing instruction.".

4.1.8.3 Add the following sentence at the end:
"When the infectious substances to be transported are unknown, but suspected of meeting the criteria for inclusion in category A and assignment to UN 2814 or UN 2900, the words "suspected category A infectious substance" shall be shown, in parentheses, following the Proper Shipping Name on the document inside the outer packaging.".

4.1.9.1.4 Replace "and intermediate bulk containers" with "IBCs and conveyances".

4.1.9.2.1 Replace "Industrial package Type 1 (Type IP-1), Industrial package Type 2 (Type IP-2), Industrial package Type 3 (Type IP-3)" with "Type IP-1 package, Type IP-2 package, Type IP-3 package,".

Chapter 4.2

4.2.0 Amend to read: "The provisions for the use and construction of portable tanks in this chapter and chapter 6.7 are based on the United Nations Recommendations on the transport of dangerous goods. IMO type portable tanks and road tank vehicles may continue to be constructed in accordance with the provisions of the IMDG Code in force on 1 July 1999 (amendment 29) until 1 January 2003. Tanks certified and approved prior to 1 January 2003 may continue to be used provided that they are found to meet the applicable periodic inspections and test provisions. They shall meet the provisions set out in columns (13) and (14) of chapter 3.2. However, the provisions of column (12) may be used instead of the provisions of column (13) until 1 January 2010. Detailed explanation and construction provisions may be found in DSC/Circ.12 (Guidance on the continued use of existing IMO type portable tanks and road tank vehicles for the transport of dangerous goods.

Note: *IMO type 4, 6 and 8 road tank vehicles may be constructed after 1 January 2003 in accordance with the provisions of chapter 6.8.*

4.2.1 Insert "class 1 and" before "classes 3 to 9".

4.2.1.1 Amend the end of the first sentence to read: "… transport of substances of classes 1, 3, 4, 5, 6, 7, 8 and 9.". Delete the last sentence.

4.2.1.4 Amend the second sentence to read as follows:
"When necessary, the shell shall be thermally insulated.".

4.2.1.9.5.1 Amend the sentence before the formula to read as follows:
"The maximum degree of filling (in %) for solids transported above their melting points and for elevated temperature liquids shall be determined by the following formula:".

4.2.1.9.8 Add to read "Portable tanks shall not be filled or discharged while they remain on board."

4.2.1.18 Add a new paragraph 4.2.1.18 to read as follows:

"**4.2.1.18** ***Additional provisions applicable to the transport of solid substances transported above their melting point***

4.2.1.18.1 Solid substances transported or offered for transport above their melting point which are not assigned a portable tank instruction in column (10) of the Dangerous Goods List of chapter 3.2 or when the assigned portable tank instruction does not apply to transport at temperatures above their melting point may be transported in portable tanks provided that the solid substances are classified in classes 4.1, 4.2, 4.3, 5.1, 6.1, 8 or 9 and have no subsidiary risk

other than that of class 6.1 or class 8 and are in packing group II or III.

4.2.1.18.2 Unless otherwise indicated in the Dangerous Goods List, portable tanks used for the transport of these solid substances above their melting point shall conform to the provisions of portable tank instruction T4 for solid substances of packing group III or T7 for solid substances of packing group II. A portable tank that affords an equivalent or greater level of safety may be selected in accordance with 4.2.5.2.5. The maximum degree of filling (in %) shall be determined according to 4.2.1.9.5 (TP3)".

4.2.2.7.4 } Add to read "Portable tanks shall not be filled or discharged while they remain on board".
4.2.3.6.5 }

4.2.4.5.4 Amend "multiple-element gas containers" to read "MEGCs".

4.2.4.6 Amend "Charged" to read "Filled".

4.2.5.2.1 Replace "2" with "1" at the end of the first sentence.

4.2.5.2.2 Insert "class 1 and" before "classes 3 to 9" at the beginning of the first sentence.

4.2.5.2.5 Add at end "T50 None".

4.2.5.2.6 Insert the following paragraph after the title:

"Portable tank instructions specify the provisions applicable to a portable tank when used for the transport of specific substances. Portable tank instructions T1 to T22 specify the applicable minimum test pressure, the minimum shell thickness (in mm reference steel), and the pressure relief and bottom-opening provisions.".

In the table for portable tank instruction "T1-T22" add a reference "[a]" to a footnote at the end of the heading "Pressure relief provisions". The footnote will read as follows:

"[a] *When the word "Normal" is indicated, all the provisions of 6.7.2.8 apply except for 6.7.2.8.3.".*

T23 For UN 3109, in the entry for Pinanyl hydroperoxyde, replace "50%" with "56%".

T50 In the table for portable tank instruction "T50":

- In the heading "Max. allowable working pressure (bar) Small, Bare; Sunshield; Insulated", add at the end "respectively[a]" and a footnote to read as follows:

  "[a] "Small" means tanks having a shell with a diameter of 1.5 metres or less; "Bare" means tanks having a shell with a diameter of more than

1.5 metres without insulation or sun shield (see 6.7.3.2.12); "Sunshield" means tanks having a shell with a diameter of more than 1.5 metres with sun shield (see 6.7.3.2.12); "Insulated" means tanks having a shell with a diameter of more than 1.5 metres with insulation (see 6.7.3.2.12); (see definition of "Design reference temperature" in 6.7.3.1).".

- Add a reference "[b]" to a footnote at the end of the heading "Pressure relief provisions", and a footnote to read as follows:

"[b] *The word "Normal" in the pressure relief column indicates that a frangible disc as specified in 6.7.3.7.3 is not required.".*

- Add a new row as follows:

UN No.	**Non-refrigerated liquefied gases**	**Max. allowable working pressure (bar) Small; Bare; Sunshield; Insulated, respectively[(a)]**	**Openings below liquid level**	**Pressure relief provisions [(b)] (see 6.7.3.7)**	**Maximum filling density**
1010	Butadienes and hydrocarbon mixture, stabilized with more than 40% butadienes	See MAWP definition in 6.7.3.1	Allowed	Normal	See 4.2.2.7

Amend existing entries to read as follows:

1062 Methylbromide with not more than 2% chloropicrin
1581 Chloropicrin and methyl bromide mixture with more than 2% chloropicrin

4.2.5.3 **TP3** Amend to read as follows: "The maximum degree of filling (in %) for solids transported above their melting points and for elevated temperature liquids shall be determined in accordance with 4.2.1.9.5.".

Add the following new portable tank instructions:

"**TP32** For UN 0331, UN 0332 and UN 3375, portable tanks may be used subject to the following conditions:

(a) To avoid unnecessary confinement, each portable tank constructed of metal shall be fitted with a pressure relief device that may be of the reclosing spring loaded type, a frangible disc or a fusible element. The set to discharge or burst pressure, as applicable, shall not be greater than 2.65 bar for portable tanks with minimum test pressures greater than 4 bar.

(b) Suitability for transport in tanks shall be demonstrated. One method to evaluate this suitability is test 8 (d) in Test Series 8 (see United Nations "*Manual of Tests and Criteria*", Part 1, Sub-section 18.7).

(c) Substances shall not be allowed to remain in the portable tank for any period that could result in caking. Appropriate measures shall be taken to avoid accumulation and packing of substances in the tank (e.g. cleaning, etc).".

TP33 The portable tank instruction assigned for this substance applies for granular and powdered solids and for solids which are filled and discharged at temperatures above their melting point and which are cooled and transported as a solid mass. For solids which are transported above their melting point, see 4.2.1.18.

TP34 Portable tanks need not be subjected to the impact test in 6.7.4.14.1 if the portable tank is marked "NOT FOR RAIL TRANSPORT" on the plate specified in 6.7.4.15.1 and also in letters at least 10 cm high on both sides of the outer jacket.".

4.2.5.1.1 Delete "and paragraph 4.2.7" in the third sentence. Delete "Except as provided for solid substances in 4.2.7," in the fourth sentence. Delete "and in 4.2.7" in the fifth sentence.

4.2.6 Amend to read:

"**4.2.6 Additional provisions for the use of road tank vehicles**

4.2.6.1 The tank of a road tank vehicle shall be attached to the vehicle during normal operations of filling, discharge and transport. IMO type 4 tanks shall be attached to the chassis when transported on board ships. Road tank vehicles shall not be filled or discharged while they remain on board. A road tank vehicle shall be driven on board on its own wheels and be fitted with permanent tie-down attachments for securing on board the ship.

4.2.6.2 Road tank vehicles shall comply with the provisions of chapter 6.8. IMO type 4, 6 and 8 tanks may be used according to the provisions of chapter 6.8 for short international voyages only."

4.2.7 Delete this section.

Chapter 4.3

Delete existing chapter and replace with a new chapter as follows:

"**CHAPTER 4.3**

USE OF BULK CONTAINERS

Note: Sheeted bulk containers shall not be used for sea transport.

4.3.1 General provisions

4.3.1.1 These general provisions are applicable to the use of containers for the transport of solid substances in bulk. Substances shall be transported in closed bulk containers conforming to the applicable bulk container instruction identified by the code BK2 in column 13 of the Dangerous Goods List in chapter 3.2. The closed bulk container used shall conform to the requirements of chapter 6.9.

4.3.1.2 Except as provided in 4.3.1.3, bulk containers shall only be used when a substance is assigned a bulk container code in column 13 of the Dangerous Goods List.

4.3.1.3 When a substance is not assigned a bulk container code in column 13 of the Dangerous Goods List, interim approval for transport may be issued by the competent authority of the country of origin. The approval shall be included in the documentation of the consignment and contain, as a minimum, the information normally provided in the bulk container instruction and the conditions under which the substance shall be transported. Appropriate measures should be initiated by the competent authority to have the assignment included in the Dangerous Goods List.

4.3.1.4 Substances which may become liquid at temperatures likely to be encountered during transport are not permitted in bulk containers.

4.3.1.5 Bulk containers shall be siftproof and shall be so closed that none of the contents can escape under normal conditions of transport including the effect of vibration, or by changes of temperature, humidity or pressure.

4.3.1.6 Bulk solids shall be loaded into bulk containers and evenly distributed in a manner that minimizes movement that could result in damage to the container or leakage of the dangerous goods.

4.3.1.7 Where venting devices are fitted, they shall be kept clear and operable.

4.3.1.8 Bulk solids shall not react dangerously with the material of the bulk container, gaskets, equipment including lids and tarpaulins, or with protective coatings, which are in contact with the contents, or significantly weaken them. Bulk containers shall be so constructed or adapted that the goods cannot penetrate between wooden floor coverings or come into contact with those parts of the bulk containers that may be affected by the dangerous goods or residues thereof.

4.3.1.9 Before being filled and offered for transport, each bulk container shall be inspected and cleaned to ensure that it does not contain any residue on the interior or exterior that could:

- cause a dangerous reaction with the substance intended for transport;
- detrimentally affect the structural integrity of the bulk container; or
- affect the dangerous goods retention capabilities of the bulk container.

4.3.1.10 During transport, no dangerous residues shall adhere to the outer surfaces of a bulk container.

4.3.1.11 If several closure systems are fitted in series, the system which is located nearest to the dangerous goods to be transported shall be closed first before filling.

4.3.1.12 Empty bulk containers that have contained dangerous goods shall be treated in the same manner as is prescribed in this Code for a filled bulk container, unless adequate measures have been taken to nullify any hazard.

4.3.1.13 If bulk containers are used for the carriage of bulk goods liable to cause a dust explosion, or evolve flammable vapours (e. g. for certain wastes), measures shall be taken to exclude sources of ignition and to prevent dangerous electrostatic discharge during transport loading or unloading of the goods.

4.3.1.14 Substances, for example wastes, which may react dangerously with one another and substances of different classes and goods not subject to this Code, which are liable to react dangerously with one another shall not be mixed together in the same bulk container. Dangerous reactions are:

.1 combustion and/or evolution of considerable heat;

.2 emission of flammable and/or toxic gases;

.3 formation of corrosive liquids; or

.4 formation of unstable substances.

4.3.1.15 Before a bulk container is filled, it shall be visually examined to ensure it is structurally serviceable, its interior walls, ceiling and floors are free from protrusions or damage and that any inner liners or substance retaining equipment are free from rips, tears or any damage that would compromise its cargo retention capabilities. Structurally serviceable means the bulk container does not have major defects in its structural components, such as top and bottom side rails, top and bottom end rails, door sill and header, floor cross members, corner posts, and corner fittings in a freight container. Major defects include:

.1 bends, cracks or breaks in the structural or supporting members that affect the integrity of the container;

.2 more than one splice or an improper splice (such as a lapped splice) in top or bottom end rails or door headers;

.3 more than two splices in any one top or bottom side rail;

.4 any splice in a door sill or corner post;

.5 door hinges and hardware that are seized, twisted, broken, missing, or otherwise inoperative;

.6 gaskets and seals that do not seal;

.7 any distortion of the overall configuration great enough to prevent proper alignment of handling equipment, mounting and securing chassis or vehicle, or insertion into ships' cargo spaces;

.8 any damage to lifting attachments or handling equipment interface features; or

.9 any damage to service or operational equipment.

4.3.2 Additional provisions applicable to bulk goods of classes 4.2, 4.3, 5.1, 6.2, 7 and 8

4.3.2.1 Bulk goods of class 4.2

The total mass carried in a bulk container shall be such that its spontaneous ignition temperature is greater than 55 °C

4.3.2.2 Bulk goods of class 4.3

Such goods shall be transported in bulk containers which are watertight.

4.3.2.3 Bulk goods of class 5.1

Bulk containers shall be so constructed or adapted that the goods cannot come into contact with wood or any other incompatible material.

4.3.2.4 Bulk waste goods of class 6.2

4.3.2.4.1 Bulk wastes of class 6.2 (UN 2900)

.1 Closed bulk containers, and their openings, shall be leakproof by design or by the fitting of a suitable liner.

.2 Waste goods UN 2900 shall be thoroughly treated with an appropriate disinfectant before loading prior to transport.

.3 Closed bulk containers used for the transport of waste goods UN 2900 shall not be re-used until they have been thoroughly cleaned and disinfected.

4.3.2.5 Bulk material of class 7

For the transport of unpackaged radioactive material, see 4.1.9.2.3.

4.3.2.6 Bulk goods of class 8

Such goods shall be transported in closed bulk containers which are watertight.".

PART 5

Chapter 5.1

Note: Move the Note under the heading of 5.1.5

5.1.2.1 Add at the end of the sentence "An overpack, in addition, shall be marked with the word "OVERPACK".

5.1.2.2 Insert the following sentence after "this Code.": "The "OVERPACK" marking on an overpack is an indication of compliance with this provision.".

5.1.3.3 Add "or empty uncleaned bulk containers" after "uncleaned packages" and "or bulk container" at the end. Delete "or" after "unit" and add comma.

5.1.4 Amend "Secondary" to read "Subsidiary".

5.1.5.1.2.6 Delete "special form" before "approval".

Chapter 5.2

5.2.1.5.4.1 Replace "an Industrial package Type 1", "an Industrial package Type 2" and "an Industrial package Type 3" with "a Type IP-1 package", "a Type IP-2 package" and "a Type IP-3 package" respectively.

.3 Replace "an Industrial package Type 2, an Industrial package Type 3" with " a Type IP-2 package, a Type IP-3 package".

5.2.2.2.1.1 Amend last sentence to read: "They shall have a line …".

5.2.2.1.2.1 Amend to read:

"A package containing a dangerous substance, which has a low degree of danger, may be exempt from these labelling requirements. In this case, a special provision specifying that no hazard label is required appears in column 6 of the Dangerous Goods List for the relevant substance. However, for certain substances the package shall be marked with the appropriate text as it appears in the special provision e.g.:

Substance	**UN No.**	**Class**	**Mark required on bales**
Baled hay in cargo transport unit	UN 1327	4.1	None
Baled hay not in cargo transport unit	UN 1327	4.1	Class 4.1
Baled dry vegetable fibres in cargo transport unit	UN 3360	4.1	None

Substance	UN No.	Class	Mark required on packages in addition to the Proper Shipping Name and UN number
Fishmeal*	UN 1374	4.2	Class 4.2 **
Batteries, wet non-spillable	UN 2800	8	Class 8 ***

* only applicable to fishmeal in packing group III
** exempt from class marking when loaded in a cargo transport unit containing only fishmeal under UN 1374
*** exempt from class marking when loaded in a cargo transport unit containing only batteries under UN 2800"

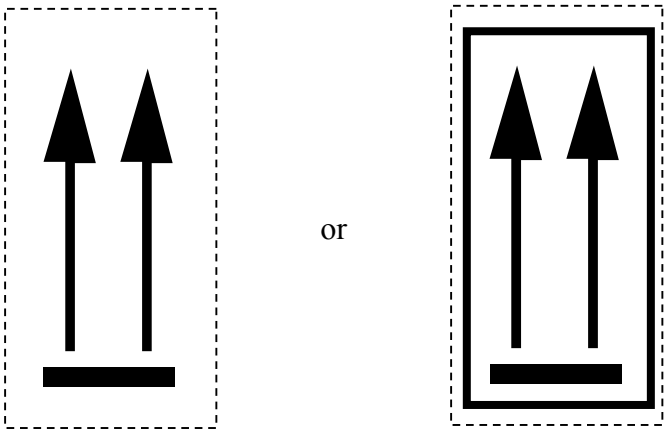
5.2.2.1.4 Amend second heading in table to read "… shown in chapter 2.2".

5.2.2.1.6 Amend the beginning of this paragraph to read:
"Except as provided in 5.2.2.2.1.2, each label shall:"

5.2.2.1.12.1 Amend end of penultimate sentence to read "... specified in this chapter.".

5.2.2.1.13 Add a new paragraph to read as follows:

"The following orientation label shall be displayed on two opposite sides of cryogenic receptacles intended for the transport of refrigerated liquefied gases. They shall be rectangular, of standard format 74 × 105 mm (A7). If the size of the package so requires, the dimensions of the labels may be changed, provided that they remain clearly visible.



Two black or red arrows on white
or suitable contrasting background

5.2.2.2.1.1 Insert "shall" before "have" in last sentence.

5.2.2.2.1.2 Add the following text at the end of the existing paragraph:

"Labels may overlap to the extent provided for by ISO 7225:1994 "Gas cylinders - Precautionary labels", however, in all cases, the labels representing the primary hazard and the numbers appearing on any label shall remain fully visible and the symbols recognizable.".

Chapter 5.3

Add a new 5.3.1.3 to read:

"**5.3.1.3 Fumigated units**

Class 9 placards shall not be affixed to a fumigated unit except as required for other class 9 substances or articles packed therein."

5.3.1.1.4.1 For "freight container" read "cargo transport unit".

5.3.1.1.4.1.1 For "cargo transport unit" read "freight container".

5.3.2.0.2 Amend "bulk packagings" to read "bulk containers".

5.3.2.1.1 Amend .5 to read as follows: ".5 solid dangerous goods in bulk containers."

5.3.2.3 Amend to read "Cargo transport units containing marine pollutants shall clearly display the marine pollutant mark in locations indicated in 5.3.1.1.4.1, even if the cargo transport unit contains packages not required to bear the marine pollutant mark. The triangular mark shall conform to the specifications given in 5.2.1.6.3.1 and shall have sides of at least 250 mm".

5.3.2.5 Add a new 5.3.2.5 to read:

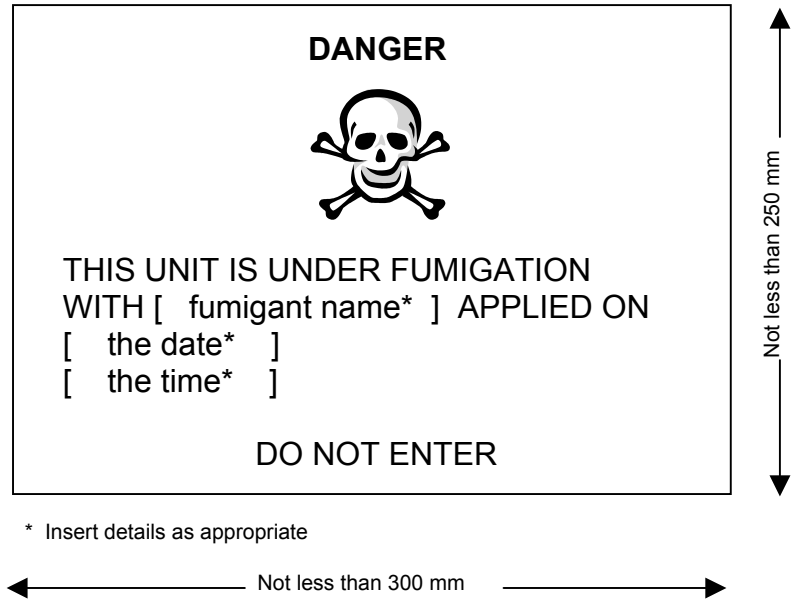
"**5.3.2.5 Fumigated units**

.1 The marking of the proper shipping name (FUMIGATED UNIT) and the UN number (UN 3359) is not required on fumigated units. However, if a fumigated unit is loaded with dangerous goods, any mark required by the provisions in 5.3.2.0 to 5.3.2.4 shall be marked on the fumigated unit.

.2 A closed fumigated unit shall be marked with a warning sign, as specified in .3, affixed in a location where it will be easily seen by persons attempting to enter the interior of the unit. When the fumigated unit has been ventilated to remove harmful concentrations of fumigant gas, the warning sign shall be removed.

.3 The fumigation warning sign shall be rectangular and shall be not less than 300 mm wide and 250 mm high. The markings shall be in black print on a white background with lettering not less than 25 mm high. An illustration of this sign is given below:

Fumigation warning sign



"

Chapter 5.4

5.4.1.4.3.2 Add ", bulk containers", in the title after "packagings", and in the text between brackets after "IBCs".

5.4.1.4.4 In the entry for ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (calcium naphthenate), class 9, for "UN 3077" read "UN 3082", and for "(calcium naphthenate)" read "(hexylbenzene)".

In 4th example, amend "(-18°C)" to read "(18°C)".

5.4.1.5.7.1.8 Amend to read as follows:

".8 For consignments of more than one package, the information contained in 5.4.1.4.1.1 to .3 and 5.4.1.5.7.1.1 to .7 shall be given for each package. For packages in an overpack, freight container, or conveyance, a detailed statement of the contents of each package within the overpack, freight container, or conveyance and, where appropriate, of each overpack, freight container, or conveyance shall be included. If packages are to be removed from the overpack, freight container, or conveyance at a point of intermediate unloading, appropriate transport documents shall be made available;".

5.4.1.5.7.2 For "(see 7.14.4)" read "(see 7.1.14.4)".

5.4.1.5.9.2 In second line, amend "phlematizer" to read "phlegmatizer".

5.4.1.5.10 Delete "the provisions of paragraph".

5.4.1.5.11 Add new paragraph to read:

"5.4.1.5.11 Segregation groups for substances

For substances, mixtures, solutions or preparations consigned under N.O.S. entries not included in the segregation groups listed in 3.1.4.4 but belonging, in the opinion of the consignor, to one of these groups (see 3.1.4.2), the appropriate segregation group shall be shown in the transport document.*

* *It is recognized that a segregation group is not applicable in all cases and may, therefore, not appear in the transport document.*"

5.4.1.5.12 Add a new paragraph to read:

"5.4.1.5.12 *Transport of solid dangerous goods in bulk containers*

For bulk containers other than freight containers, the following statement shall be shown on the transport document (see 6.9.4.6):

"Bulk container BK2 approved by the competent authority of …"

5.4.2.1 In the Note, insert "portable" before "tank".

5.4.3.1 For "5.4.1" read "5.4.1.4 and 5.4.1.5".

5.4.4.1 Insert "or other documents" after "special certificates".

5.4.4.2 Add new paragraph to read:

"**5.4.4.2 Fumigated units**

The transport document for a fumigated unit shall show the type and amount of fumigant used and the date and time of fumigation. In addition, instructions for disposal of any residual fumigant, including fumigation devices, if used, shall be provided."

Chapter 5.5 Delete whole chapter.

PART 6

Add "MULTIPLE ELEMENT GAS CONTAINERS (MEGCs)" after "PORTABLE TANKS" in main title.

Chapter 6.1

6.1.2.2 Delete "and infectious substances packagings".

6.1.2.7 Under "1" amend "N1" and "N2" to read "1N1" AND 1N2".

6.1.3.2 Amend referenced ISO standard to read "ISO 3574:1999 for steel.".

6.1.3.4 Amend last sentence to read "Every other remanufactured metal drum …".

6.1.3.6 Insert a new paragraph 6.1.3.6 to read as follows:

"Packagings manufactured with recycled plastics material as defined in 1.2.1 shall be marked "REC". This mark shall be placed near the mark prescribed in 6.1.3.1."

Renumber subsequent paragraphs accordingly and all cross-references within them.

6.1.3.7 (new) Merge the unnumbered subparagraph to main text.

6.1.3.12 Move the Note following this paragraph to the left.

6.1.4.1.1 Add a Note to read as follows:

*"**Note**: For carbon steel drums, "suitable" steels are identified in ISO 3573:1999 "Hot rolled carbon steel sheet of commercial and drawing qualities" and ISO 3574:1999 "Cold-reduced carbon steel sheet of commercial and drawing qualities".*
For carbon steel drums below 100 litres "suitable" steels in addition to the above standards are also identified in ISO 11949:1995 "Cold-reduced electrolytic tinplate", ISO 11950:1995 "Cold-reduced electrolytic chromium/chromium oxide-coated steel" and ISO 11951:1995 "Cold-reduced blackplate in coil form for the production of tinplate or electrolytic chromium/chromium-oxide coated steel.".

6.1.4.3.1 Amend to read "… constructed of metal or metal alloy …".

6.1.4.8.2 Delete this paragraph and renumber all subsequent paragraphs and subparagraph accordingly.

6.1.4.18.1 Amend to read: "... net-cloth with adhesive bonding to the outermost ply. The strength … and to its intended use. Joins …".

6.1.4.18.2 Amend: "contained substance" to read "substance contained".

6.1.5.1.7.7 In the last sentence, amend "package marking" to read "packaging mark".

6.1.5.1.11.1.2 Replace "6.1.5.8" with "6.1.5.7".

6.1.5.2.1 In the second sentence, insert ", other than bags," after "packagings".

Insert the following new third sentence: "Bags shall be filled to the maximum mass at which they may be used.".

6.1.5.2.2 Replace "6.1.5.3.4" with "6.1.5.3.5".

6.1.5.3.2.3 Amend "polystyrene" to read "plastics".

6.1.5.3.3 Add a new 6.1.5.3.3 to read as follows:

"Removable head packagings for liquids shall not be dropped until at least 24 hours after filling and closing to allow for any possible gasket relaxation."

Renumber subsequent paragraphs and subparagraphs accordingly.

6.1.5.3.5 (new) Replace the sentence: "For liquids if the test is performed with water:"… with "For liquids in single packagings and for inner packagings of combination packagings, if the test is performed with water:"

Add the following note before the table:

"***Note:*** *The term water includes water/antifreeze solutions with a minimum specific gravity of 0.95 for testing at - 18 °C.*".

6.1.5.3.6.2 Insert the words "while retaining its containment function," after "closure".

6.1.5.7 Delete this paragraph and renumber the paragraph and subparagraphs relating to "Test report" accordingly.

Chapter 6.2

Delete "certified" in relation to "UN certified" in paragraphs: 6.2.2, 6.2.2.4 and 6.2.3.

6.2.1.1.1 Insert ", including fatigue," after "to withstand all conditions".

6.2.1.1.3 Delete the first sentence.

6.2.1.1.5 Renumber the first sentence of this paragraph as 6.2.1.1.8 and amend as follows:

Insert "additional provisions" in place of "requirements" and delete "pressure" before "receptacles".

6.2.1.1.5.1 Renumber as 6.2.1.1.8.1 and delete "at the initial inspection".

6.2.1.1.5.2 Renumber as 6.2.1.1.8.2 and amend as follows:
2nd sentence: replace "continuous sheathing" with "a jacket".
3rd sentence: replace "sheathing" and "protective sheathing" with "jacket" and amend the end of the sentence to read as follows: "… (1 bar) calculated in accordance with a recognised technical code or a calculated critical collapsing pressure of not less than 200 kPa (2 bar) gauge pressure.".
4th sentence: replace "sheathing" with "jacket".

6.2.1.1.6 Renumber as 6.2.1.1.5.

6.2.1.1.7 Renumber as 6.2.1.1.6. In the last sentence, delete "class 2.3", insert "toxic" before "liquefied" and replace "can be separately charged" with "can be filled separately".

6.2.1.1.7 Insert a new paragraph 6.2.1.1.7 to read as follows:

"Contact between dissimilar metals which could result in damage by galvanic action shall be avoided.".

6.2.1.1.8.3 and
6.2.1.1.8.4 Add the following two new subparagraphs:

".3 Closed cryogenic receptacles intended for the transport of refrigerated liquefied gases having a boiling point below -182 °C at atmospheric pressure shall not include materials which may react with oxygen or oxygen enriched atmospheres in a dangerous manner, when located in parts of the thermal insulation where there is a risk of contact with oxygen or with oxygen enriched liquid.

.4 Closed cryogenic receptacles shall be designed and constructed with suitable lifting and securing arrangements.".

6.2.1.3.2 Replace "4.1.6.1.7" with "4.1.6.1.8" in the last sentence.

6.2.1.3.4 In the first sentence, delete "approved", replace "required" with "specified" and "as specified by the country of use" with "in 6.2.1.3.6.4 and 6.2.1.3.6.5.".

Insert the following new second sentence: "Pressure relief devices shall be designed to prevent the entry of foreign matter, the leakage of gas and the development of any dangerous excess pressure.".

In the last sentence, replace "receptacles" with "receptacle itself", before "under normal conditions of transport.".

6.2.1.3.5 Delete this paragraph. As a consequence, current 6.2.1.3.6 becomes 6.2.1.3.5.

6.2.1.3.6 Add new paragraph and subparagraphs to read as follows:

"6.2.1.3.6 *Additional provisions for closed cryogenic receptacles*

6.2.1.3.6.1 Each filling and discharge opening in a closed cryogenic receptacle used for the transport of flammable refrigerated liquefied gases shall be fitted with at least two mutually independent shut-off devices in series, the first being a stop-valve, the second being a cap or equivalent device.

6.2.1.3.6.2 For sections of piping which can be closed at both ends and where liquid product can be trapped, a method of automatic pressure relief shall be provided to prevent excess pressure build-up within the piping.

6.2.1.3.6.3 Each connection on a closed cryogenic receptacle shall be clearly marked to indicate its function (e.g. vapour or liquid phase).

6.2.1.3.6.4 Pressure relief devices

6.2.1.3.6.4.1 Each closed cryogenic receptacle shall be provided with at least one pressure relief device. The pressure relief device shall be of the type that will resist dynamic forces including surge.

6.2.1.3.6.4.2 Closed cryogenic receptacles may, in addition, have a frangible disc in parallel with the spring loaded device(s) in order to meet the provisions of 6.2.1.3.6.5.

6.2.1.3.6.4.3 Connections to pressure relief devices shall be of sufficient size to enable the required discharge to pass unrestricted to the pressure relief device.

6.2.1.3.6.4.4 All pressure relief device inlets shall under maximum filling conditions be situated in the vapour space of the closed cryogenic receptacle and the devices shall be so arranged as to ensure that the escaping vapour is discharged unrestrictedly.

6.2.1.3.6.5 Capacity and setting of pressure relief devices

Note: *In relation to pressure relief devices of closed cryogenic receptacles, MAWP means the maximum effective gauge pressure permissible at the top of a loaded closed cryogenic receptacle in its operating position including the highest effective pressure during filling and discharge.*

6.2.1.3.6.5.1 The pressure relief device shall open automatically at a pressure not less than the MAWP and be fully open a pressure equal to 110% of the MAWP. It shall, after discharge, close at a pressure not lower than 10% below the pressure at which discharge starts and shall remain closed at all lower pressures.

6.2.1.3.6.5.2 Frangible discs shall be set to rupture at a nominal pressure which is the lower of either the test pressure or 150% of the MAWP.

6.2.1.3.6.5.3 In the case of the loss of vacuum in a vacuum-insulated closed cryogenic receptacle the combined capacity of all pressure relief devices installed shall be sufficient so that the pressure (including accumulation) inside the closed cryogenic receptacle does not exceed 120% of the MAWP.

6.2.1.3.6.5.4 The required capacity of the pressure relief devices shall be calculated in accordance with an established technical code recognized by the competent authority[1].".

6.2.1.4.1 Insert ", other than closed cryogenic receptacles," after "New pressure receptacles".

In subparagraph .3, delete "and". The sentence "Inspection of the external and internal conditions of the pressure receptacles" becomes new subparagraph .4.

Renumber subsequent subparagraphs accordingly.

In the note under new .7, replace "inspection body" with "competent authority".

In new .8, add the following sentence at the end: "In the case of welded pressure receptacles, particular attention shall be paid to the quality of the welds.".

In new .10, replace "material" with "mass" and add ", if applicable," before "the quantity of solvent".

6.2.1.4.2 Add the following new paragraph:

"On an adequate sample of closed cryogenic receptacles, the inspections and tests specified in 6.2.1.4.1.1, .2, .4 and .6 shall be performed. In addition, welds shall be inspected by radiographic, ultrasonic or another suitable non-destructive test method on a sample of closed cryogenic receptacles, according to the applicable design and construction standard. This weld inspection does not apply to the jacket.

Additionally, all closed cryogenic receptacles shall undergo the inspections and tests specified in 6.2.1.4.1, .7, .8 and .9, as well as a leakproofness test and a test of the satisfactory operation of the service equipment after assembly.".

6.2.1.5.1 Delete "under the supervision of an inspection body" and insert "by a body authorized by the competent authority," before "in accordance with the following:".
In .2, delete "by weighing," and replace "checks of" with "verification of minimum".

[1] *See for example CGA Publications S-1.2-1995 and S-1.1-2001.*

In .3, delete "neck" and add "if there is evidence of corrosion or if the fittings are removed;", at the end.
In Note 1 under .4, replace "inspection body" with "competent authority", and in Note 2, replace "and" with "or" before "tubes".

6.2.1.5.3 Delete.

6.2.2.1.1 Amend the end of the sentence before the table as follows: "… and test of UN cylinders, except that inspection requirements related to the conformity assessment system and approval shall be in accordance with 6.2.2.5:"

Add the following standards to the current table:

ISO 11119-1:2002	Gas cylinders of composite construction – Specification and test methods – Part 1: Hoop wrapped composite gas cylinders
ISO 11119-2:2002	Gas cylinders of composite construction – Specification and test methods – Part 2: Fully wrapped fibre reinforced composite gas cylinders with load-sharing metal liners

Add the following notes at the end of the table:

Note 1: *In the above referenced standards, composite cylinders shall be designed for unlimited service life.*

Note 2: *After the first 15 years of service, composite cylinders manufactured according to these standards may be approved for extended service by the competent authority which was responsible for the original approval of the cylinders and which will base its decision on the test information supplied by the manufacturer or owner or user.".*

6.2.2.1.2 Amend the end of the sentence before the table as follows: "… and test of UN tubes, except that inspection requirements related to the conformity assessment system and approval shall be in accordance with 6.2.2.5:".

6.2.2.1.3 Amend the end of the sentence before the table as follows: "… and test of UN acetylene cylinders, except that inspection requirements related to the conformity assessment system and approval shall be in accordance with 6.2.2.5:".

6.2.2.4 Add the following standard to the current table:

ISO 11623:2002	Transportable gas cylinders – Periodic inspection and testing of composite gas cylinders

6.2.2.5 In the title, insert "for manufacture" after "approval".

6.2.2.5.2.4 In the first sentence, replace "as an inspector" with "for the inspection".
In .4, insert "commercial" after "ensure".

6.2.2.5.3.1.9 Insert "and qualification procedures" after " training programmes".

6.2.2.5.4.1 Replace "encompass" with "meet".

6.2.2.5.4.2 Replace "written approval" with "certificate" in the last sentence.

6.2.2.5.4.3 Indent the sub-entries .1 to .5 to subsection 8 further to the right.

6.2.2.5.4.6 Replace "6.2.2.5.4.2" with "6.2.2.5.4.3".

6.2.2.5.4.9 Replace "certification" with "approval" in the last paragraph.

6.2.2.6 Insert the following text as new sub-section 6.2.2.6:

"**6.2.2.6** ***Approval system for periodic inspection and testing of pressure receptacles***

6.2.2.6.1 *Definitions*

For the purposes of this section:

Approval system means a system for competent authority approval of a body performing periodic inspection and testing of pressure receptacles (hereinafter referred to as "periodic inspection and test body"), including approval of that body's quality system.

6.2.2.6.2 *General provisions*

Competent authority

6.2.2.6.2.1 The competent authority shall establish an approval system for the purpose of ensuring that the periodic inspection and testing of pressure receptacles conform to the provisions of this Code. In instances where the competent authority that approves a body performing periodic inspection and testing of a pressure receptacle is not the competent authority of the country approving the manufacture of the pressure receptacle, the marks of the approval country of periodic inspection and testing shall be indicated in the pressure receptacle marking (see 6.2.2.7). The competent authority of the country of approval for the periodic inspection and testing shall supply, upon request, evidence demonstrating compliance with this approval system, including the records of the periodic inspection and testing to its counterpart in a country of use. The competent authority of the country of approval may terminate the approval certificate referred to in 6.2.2.6.4.1, upon evidence demonstrating non-compliance with the approval system.

6.2.2.6.2.2 The competent authority may delegate its functions in this approval system, in whole or in part.

6.2.2.6.2.3 The competent authority shall ensure that a current list of approved periodic inspection and testing bodies and their identity marks is available.

Periodic inspection and testing body

6.2.2.6.2.4 The periodic inspection and testing body shall be approved by the competent authority and shall:

.1 have a staff with an organizational structure, capable, trained, competent, and skilled, satisfactorily to perform its technical functions;

.2 have access to suitable and adequate facilities and equipment;

.3 operate in an impartial manner and be free from any influence which could prevent it from doing so;

.4 ensure commercial confidentiality;

.5 maintain clear demarcation between actual periodic inspection and testing body functions and unrelated functions;

.6 operate a documented quality system in accordance with 6.2.2.6.3;

.7 apply for approval in accordance with 6.2.2.6.4;

.8 ensure that the periodic inspections and tests are performed in accordance with 6.2.2.6.5; and

.9 maintain an effective and appropriate report and record system in accordance with 6.2.2.6.6.

6.2.2.6.3 *Quality system and audit of the periodic inspection and testing body*

6.2.2.6.3.1 Quality system. The quality system shall contain all the elements, requirements, and provisions adopted by the periodic inspection and test body. It shall be documented in a systematic and orderly manner in the form of written policies, procedures, and instructions. The quality system shall include:

.1 a description of the organizational structure and responsibilities;

.2 the relevant inspection and test, quality control, quality assurance, and process operation instructions that will be used;

.3 quality records, such as inspection reports, test data, calibration data and certificates;

.4 management reviews to ensure the effective operation of the quality system arising from the audits performed in accordance with 6.2.2.6.3.2;

.5 a process for control of documents and their revision;

.6 a means for control of non-conforming pressure receptacles; and

.7 training programmes and qualification procedures for relevant personnel.

6.2.2.6.3.2 Audit. The periodic inspection and testing body and its quality system shall be audited in order to determine whether it meets the requirements of this Code to the satisfaction of the competent authority. An audit shall be conducted as part of the initial approval process (see 6.2.2.6.4.3). An audit may be required as part of the process to modify an approval (see 6.2.2.6.4.6). Periodic audits shall be conducted, to the satisfaction of the competent authority, to ensure that the periodic inspection and test body continues to meet the provisions of this Code. The periodic inspection and testing body shall be notified of the results of any audit. The notification shall contain the conclusions of the audit and any corrective actions required.

6.2.2.6.3.3 Maintenance of the quality system. The periodic inspection and testing body shall maintain the quality system as approved in order that it remains adequate and efficient. The periodic inspection and testing body shall notify the competent authority that approved the quality system of any intended changes, in accordance with the process for modification of an approval in 6.2.2.6.4.6.

6.2.2.6.4 *Approval process for periodic inspection and test bodies*

Initial approval

6.2.2.6.4.1 A body desiring to perform periodic inspection and testing of pressure receptacles in accordance with a pressure receptacle standard and with this Code shall apply for, obtain, and retain an Approval Certificate issued by the competent authority. This written approval shall, on request, be submitted to the competent authority of a country of use.

6.2.2.6.4.2 An application shall be made for each periodic inspection and test body and shall include:

.1 the name and address of the periodic inspection and testing body and, if the application is submitted by an authorized representative, its name and address;

.2 the address of each facility performing periodic inspection and testing;

.3 the name and title of the person(s) responsible for the quality system;

.4 the designation of the pressure receptacles, the periodic inspection and test methods, and the relevant pressure receptacle standards met by the quality system;

.5 documentation on each facility, the equipment, and the quality system as specified under 6.2.2.6.3.1;

.6 the qualifications and training records of the periodic inspection and test personnel; and

.7 details of any refusal of approval of a similar application by any other competent authority.

6.2.2.6.4.3 The competent authority shall:

.1 examine the documentation to verify that the procedures are in accordance with the requirements of the relevant pressure receptacle standards and of this Code; and

.2 conduct an audit in accordance with 6.2.2.6.3.2 to verify that the inspections and tests are carried out as required by the relevant pressure receptacle standards and by this Code, to the satisfaction of the competent authority.

6.2.2.6.4.4 After the audit has been carried out with satisfactory results and all applicable requirements of 6.2.2.6.4 have been satisfied, an Approval Certificate shall be issued. It shall include the name of the periodic inspection and testing body, the registered mark, the address of each facility, and the necessary data for identification of its approved activities (e.g. designation of pressure receptacles, periodic inspection and test method and pressure receptacle standards).

6.2.2.6.4.5 If the periodic inspection and testing body is denied approval, the competent authority shall provide written detailed reasons for such denial.

Modifications to periodic inspection and test body approvals

6.2.2.6.4.6 Following approval, the periodic inspection and testing body shall notify the issuing competent authority of any modifications to the information submitted under 6.2.2.6.4.2 relating to the initial approval. The modifications shall be evaluated in order to determine whether the requirements of the relevant pressure receptacle standards and of this Code will be satisfied. An audit in accordance with 6.2.2.6.3.2 may be required. The competent authority shall accept or reject these modifications in writing, and an amended Approval Certificate shall be issued as necessary.

6.2.2.6.4.7 Upon request, the competent authority shall communicate to any other competent authority, information concerning initial approvals, modifications of approvals, and withdrawn approvals.

6.2.2.6.5 *Periodic inspection and test and certification*

The application of the periodic inspection and test marking to a pressure receptacle shall be considered a declaration that the pressure receptacle complies with the applicable pressure receptacle standards and with the provisions of this Code. The periodic inspection and test body shall affix the periodic inspection and test marking, including its registered mark, to each approved pressure receptacle (see 6.2.2.7.6). A record certifying that a pressure receptacle has passed the periodic inspection and test shall be issued by the periodic inspection and test body, before the pressure receptacle is filled.

6.2.2.6.6 *Records*

The periodic inspection and testing body shall retain records of pressure receptacle periodic inspection and tests (both passed and failed), including the location of the test facility, for not less than 15 years. The owner of the pressure receptacle shall retain an identical record until the next periodic inspection and test unless the pressure receptacle is permanently removed from service.".

Renumber existing 6.2.2.6 and 6.2.2.7 as 6.2.2.7 and 6.2.2.8 respectively.

6.2.2.7 (new) Amend the title to read: "Marking of refillable UN pressure receptacles".
Amend the first sentence to read as follows: "Refillable UN pressure receptacles shall be marked clearly and legibly with certification, operational and manufacturing marks.".
In the third sentence, insert "or corrosion resistant plate welded on the outer jacket of a closed cryogenic receptacle" after "welded collar".
Replace ""UN" mark" with "UN packaging symbol" (twice).

6.2.2.7.1(a) Delete "certified".

6.2.2.7.2 In (g), amend the beginning of the first sentence to read: "the mass of the empty pressure receptacle …". In the third sentence, delete "empty" before "mass".
In (h), add at the end: "or for closed cryogenic receptacles;"
In (i), in the first sentence, delete "intended" and "the transport of". Add the following sentence at the end: "In the case of closed cryogenic receptacles, the maximum allowable working pressure preceded by the letters "MAWP";"
In (j), amend the beginning of the sentence to read: "In the case of pressure receptacles for liquefied gases and refrigerated liquefied gases, the water …" and replace "digits" with "figures", in the first sentence.
In (k) insert "pressure receptacles for" before "UN 1001" and replace "material" with "mass" after "porous".
In (l) insert "pressure receptacles for" before "UN 3374" and replace "material" with "mass" after "porous".

6.2.2.7.3 In (m), add the following sentence at the end: "This mark is not required for closed cryogenic receptacles;".

6.2.2.7.4 In the first sentence, delete "as shown in the example below:".
In the first indent, replace "6.2.2.6.3" with "6.2.2.7.3".
In the second indent, amend the beginning to read: "The operational marks in 6.2.2.7.2 shall be the middle grouping and the test pressure (f) shall be immediately …".
In the third indent, replace "6.2.2.6.1" with "6.2.2.7.1".
Add the following sentence immediately before the diagram: "The following is an example of the markings applied to a cylinder.".

In the illustration of the upper part of a gas cylinder below "(h)", for "**58MM**" read "**5.8MM**".

6.2.2.7.5 Insert the following new second sentence: "In the case of closed cryogenic receptacles, such marks may be on a separate plate attached to the outer jacket.".

6.2.2.7.6 Replace current 6.2.2.6.6 with the following:

"In addition to the preceding marks, each refillable pressure receptacle that meets the periodic and test requirements of 6.2.2.4 shall be marked in sequence as follows:

(a) the character(s) identifying the country authorizing the body performing the periodic inspection and test. This marking is not required if this body is approved by the competent authority of the country approving manufacture;

(b) the registered mark of the body authorized by the competent authority for performing periodic inspection and test;

(c) the date of the periodic inspection and test, the year (two digits) followed by the month (two digits) separated by a slash (i.e. "/"). Four digits may be used to indicate the year."

6.2.2.8 Wherever it appears throughout this sub-section, replace "UN-non refillable" with "non-refillable UN", and replace references to "6.2.2.6" with "6.2.2.7".

6.2.2.8.2 In the NOTE, delete "(see 5.2.2.2.1.2)".

6.2.3 Delete in the title "certified".

Chapter 6.3

In 6.3.2.9.1, for "6.3.2.6" read "6.3.2.3".

Chapter 6.4

Replace "Industrial package Type 1 (Type IP-1)", "Industrial package Type 2 (Type IP-2)" and "Industrial package Type 3 (Type IP-3)" with "Type IP-1 package", "Type IP-2 package" and "Type IP-3 package" respectively, all throughout this chapter.

6.4.3.3 Amend to read as follows:
"Packages containing radioactive material, to be transported by air, shall be capable of withstanding, without leakage, an internal pressure which produces a pressure differential of not less than maximum normal operating pressure plus 95 kPa.".

6.4.6.1 Add the following new first sentence: "Packages designed to contain uranium hexafluoride shall meet the requirements prescribed elsewhere in this Code which pertain to the radioactive and fissile properties of the material.".

Delete "the provisions of the International Organization for Standardization document".

Amend the beginning of the second sentence to read as follows: "Except as allowed in 6.4.6.4, uranium hexafluoride in quantities of 0.1 kg or more shall also be packaged …".

Delete the current last sentence, i.e. "The package shall also meet …… fissile properties of the material.".

6.4.6.2 In .2, insert "free drop" before "test" and in .3, insert "thermal" before "test". In .1, delete "the International Organization for Standardization document".

6.4.6.4 Amend (a) to read as follows:

"(a) The packages are designed to international or national standards other than ISO 7195:1993, provided an equivalent level of safety is maintained;".

In (b), insert "of" after "test pressure".

Add the following sentence after the subparagraphs (a) to (c): "In all other respects, the provisions of in 6.4.6.1 to 6.4.6.3 shall be satisfied.".

6.4.7.16 Replace "6.4.7.14" with "6.4.7.14 (a)".

6.4.8.5 Replace the existing table with the following one:

Case	Form and location of surface	Insolation for 12 hours per day (W/m^2)
1	Flat surfaces transported horizontally-downward facing	0
2	Flat surfaces transported horizontally-upward facing	800
3	Surfaces transported vertically	200*
4	Other downward facing (not horizontal) surfaces	200*
5	All other surfaces	400*

Note "*" under the table remains unchanged.

6.4.11.1 (b)(i) Amend to read as follows: "of 6.4.7.2 for packages containing fissile material;".

6.4.11.2.1 Amend the sentence after subparagraphs .1 to .3 to read as follows:
"Neither beryllium nor deuterium in hydrogenous material enriched in deuterium shall be present in quantities exceeding 1% of the applicable consignment mass limits provided in Table 6.4.11.2".

6.4.11.5 Replace "packaging" with "package".

6.4.11.10 Amend (a) as follows: "… conditions consistent with the Type C package tests specified in 6.4.20.1 …".

In (b), amend the beginning to read: "in the assessment of 6.4.11.9, allowance …"; insert "Type C package" before "tests specified" and "the water in-leakage test of" before "6.4.19.3".

6.4.14 Replace "6.4.17.2, 6.4.20.2, and 6.4.20.4" with "6.4.17.2 and 6.4.20.2".

6.4.20.2 (a) Amend the end of the last but one sentence to read: "… at the top with its edge rounded off to a radius of not more than 6 mm".

6.4.20.4 Amend the end of the last sentence to read: "… as defined in 6.4.14, except that the target surface may be at any orientation provided that the surface is normal to the specimen path.".

Chapter 6.5

6.5.1.1.2 Amend "equivalent alternatives" to read "acceptable alternatives".

6.5.1.4.1 Amend "The IBC code" to read "The code".

6.5.1.6.4 Delete final "s" from heading.

6.5.2.1.1.7 Add "*" after "stacking test load", and the associated footnote to read: "* The stacking test load in kilograms to be placed on the IBC shall be 1.8 times the combined maximum permissable gross mass of the number of similar IBCs that may be stacked on top of the IBCs during transport (see 6.5.4.6.4).".

6.5.2.1.2 In the third example beginning "31H1/Y/04 99" amend "120" to read "1200".

6.5.2.2.2 Delete "handling and".

6.5.3.1.1 First sentence, for "… the transport of solids." read "… the transport of liquids and solids.".

6.5.3.1.6 Adjust the alignment of the last paragraph with that of 6.5.3.1.6.3.

6.5.3.1.7 Amend "pressure-relief" to read "pressure relief".

6.5.3.2.7 Amend to read: "Additives may be incorporated into the material of the body to improve the resistance to ageing or to serve other purposes, provided that these do not adversely affect the physical or chemical properties of the material.".

6.5.3.2.8 Amend to read: "No material recovered from used receptacles shall be used in the manufacture of IBC bodies. Production residues or scrap from the same manufacturing process may, however, be used. Component parts such as fittings and pallet bases may also be used provided such components have not in any way been damaged in previous use.".

6.5.3.3.1 Amend to read: "These provisions apply to rigid plastics IBCs for the transport of solids or liquids. Rigid plastics IBCs are of the following types:

11H1 fitted with structural equipment designed to withstand the whole load when IBCs are stacked, for solids which are filled or discharged by gravity
11H2 freestanding, for solids which are filled or discharged by gravity
21H1 fitted with structural equipment designed to withstand the whole load when IBCs are stacked, for solids which are filled or discharged under pressure
21H2 freestanding, for solids which are filled or discharged under pressure
31H1 fitted with structural equipment designed to withstand the whole load when IBCs are stacked, for liquids
31H2 freestanding, for liquids.".

6.5.3.3.4 Amend to read: "Additives may be incorporated in the material of the body to improve the resistance to ageing or to serve other purposes, provided that these do not adversely affect the physical or chemical properties of the material.".

6.5.3.4.7 Amend to read: "Where protection against ultraviolet radiation is required, it shall be provided by the addition of carbon black or other suitable pigments or inhibitors. These additives shall be compatible with the contents and remain effective throughout the life of the inner receptacle. Where use is made of carbon black, pigments or inhibitors, other than those used in the manufacture of the tested design type, retesting may be waived if changes in carbon black content, the pigment content or the inhibitor content do not adversely affect the physical properties of the material of construction.".

6.5.3.4.8 Amend to read: "Additives may be incorporated in the material of the inner receptacle to improve the resistance to ageing or to serve other purposes, provided that these do not adversely affect the physical or chemical properties of the material.".

6.5.3.4.26 Delete "c" before "6".

6.5.3.5.3 Amend to read: "The body shall be made of strong and good quality solid or double-faced corrugated fibreboard (single or multiwall), appropriate to the capacity of the IBC and to its intended use. The water resistance of the outer surface shall be such that the increase in mass, as determined in a test carried out over a period of 30 minutes by the Cobb method of determining water absorbtion, is not greater than 155 g/m^2 - see ISO 535:1991. It shall have proper bending qualities. Fibreboard shall be cut, creased without scoring, and slotted so as to permit assembly without cracking, surface breaks or undue bending. The fluting or corrugated fibreboard shall be firmly glued to the facings.

6.5.3.6.4 Amend to read: "Natural wood shall be well-seasoned, commercially dry and free from defects that would materially lessen the strength of any part of the IBC. Each part of the IBC shall consist of one piece or be equivalent thereto. Parts are considered equivalent to one piece when a suitable method of glued assembly is used as for instance Lindermann joint, tongue and groove joint, ship lap or rabbet joint; or butt joint with at least two corrugated metal fasteners at each joint, or when other methods at least equally effective are used.".

6.5.3.6.10 Amend "on the base" to read "of the base".

6.5.4.3.5 In footnote (d), delete "in the table".

6.5.4.5.2 Amend "maximum permissable load" to read "maximum permissable gross mass".

6.5.4.7.3 In the second sentence, for "The airtightness of the IBC …" read "The airtightness of the metal IBC …".

6.5.4.8.2 Amend the last sentence to read "Pressure relief devices shall be removed and their apertures plugged, or shall be rendered inoperative.".

Chapter 6.6

6.6.3.1 (g) Add "*" after "stacking test load", and the associated footnote to read: "* The stacking test load in kilogrammes to be placed on the large packaging shall be 1.8 times the combined maximum permissable gross mass of the number of similar large packagings that may be stacked on top of the large packaging during transport (see 6.6.5.3.3.4).".

Chapter 6.7

6.7.1.3 Delete "or is not authorized according to 4.2.7" in the first sentence.

6.7.2 Insert "class 1 and" before "classes 3 to 9".

6.7.2.1 In the definition of "*Design pressure*", replace "dynamic" with "static" in .2.3.

In the definition of "*Design temperature range*", insert "the other" before "substances" at the beginning of the second sentence.

In the definition of "portable tank" insert "class 1 and" before "classes 3 to 9" and delete the words "having a capacity of more than 450 litres" in the first sentence.

Insert the following definitions in alphabetical order:

"*Fine grain steel* means steel which has a ferritic grain size of 6 or finer when determined in accordance with ASTM E 112-96 or as defined in EN 10028-3, Part 3.

Fusible element means a non-reclosable pressure relief device that is thermally actuated.

Offshore portable tank means a portable tank specially designed for repeated use for transport of dangerous goods to, from and between offshore facilities. An offshore portable tank is designed and constructed in accordance with MSC/Circ.860 "Guidelines for the Approval of Containers Handled in Open Seas".

6.7.2.1.3 For "4.2.4.2.6" read "4.2.5.2.6".

6.7.2.8.1 For "4.2.4.2.6" read "4.2.5.2.6".

6.7.2.12.2 Amend the beginning of the first sentence to read as follows:
"The combined delivery capacity of the pressure relief system (taking into account the reduction of the flow when the portable tank is fitted with frangible-discs preceding spring-loaded pressure relief devices or when the spring-loaded pressure relief devices are provided with a device to prevent the passage of the flame), in conditions of complete fire engulfment …".

6.7.2.13.1.5 Replace "of the device" with "of the spring-loaded pressure relief devices, frangible-discs or fusible elements".

6.7.2.13.2 Insert the words "spring-loaded" before "pressure relief devices".

6.7.2.19.1, 6.7.3.15.1, 6.7.4.14.1 and
6.7.5.12.1 Replace the reference for the Canadian and German standards, respectively, with the following:

"National Standard of Canada, CAN/CGSB-43.147-2002, "Construction, Modification, Qualification, Maintenance, and Selection and Use of Means of Containment for the Handling, Offering for Transport or Transporting of Dangerous Goods by Rail", March 2002, published by the Canadian General Standards Board (CGSB).

Deutsche Bahn AG
DB Systemtechnik, Minden
Verifikation und Versuche, TZF 96.2
Portable tanks, longitudinal impact test"

6.7.2.20.1, 6.7.3.16.1 and 6.7.4.15.1 Move the footnotes to the end of the section.

6.7.3.1 In the definition of "*Design pressure*" replace "dynamic" with "static" in .2.2.

6.7.5.1 In the definition of "Elements" delete "restricted to".

6.7.5.2.1 Amend "loaded" to read "filled" in the first sentence.

6.7.5.2.8 Move the footnote to the end of the section.

6.7.5.4.1 Amend second sentence to read: "MEGCs for other gases ...".

6.7.5.5.1 Amend first sentence to read: "… complete fire engulfment of the MEGC, ...", and delete all hyphens from "pressure-relief".

6.7.5.12.4 Amend first sentence to read: "... inspection and test shall include …".

6.7.5.13.1 Amend second sentence to read "... in accordance with chapter 6.2".

Chapter 6.9

Add a new chapter 6.9 as follows:

"**CHAPTER 6.9**
PROVISIONS FOR THE DESIGN, CONSTRUCTION, INSPECTION AND TESTING OF BULK CONTAINERS

Note: Sheeted bulk containers shall not be used for sea transport.

6.9.1 Definitions

For the purposes of this section:

Closed bulk containers are totally closed bulk containers having a rigid roof, sidewalls, end walls and floor (including hopper-type bottoms), including bulk containers with an opening roof, or side or end wall that can be closed during transport. Closed bulk containers may be equipped with openings to allow for the exchange of vapours and gases with air and which prevent under normal conditions of transport the release of solid contents as well as the penetration of rain and splash water.

Sheeted bulk containers are open-top bulk containers with rigid bottom (including hopper-type bottom), side and end walls and a non-rigid covering.

6.9.2 Application and general provisions

6.9.2.1 Bulk containers and their service and structural equipment shall be designed and constructed to withstand, without loss of contents, the internal pressure of the contents and the stresses of normal handling and transport.

6.9.2.2 Where a discharge valve is fitted, it shall be capable of being made secure in the closed position and the whole discharge system shall be suitably protected from damage. Valves having lever closures shall be able to be secured against unintended opening and the open or closed position shall be readily apparent.

6.9.2.3 *Code for designating types of bulk container*

The following table indicates the codes to be used for designating types of bulk containers:

Types of bulk container	Code
Sheeted bulk container (Not allowed for sea transport)	BK1
Closed bulk container	BK2

6.9.2.4 In order to take account of progress in science and technology, the use of alternative arrangements which offer at least equivalent safety as provided by the provisions of this chapter may be considered by the competent authority.

6.9.3 Provisions for the design, construction, inspection and testing of freight containers used as bulk containers

6.9.3.1 ***Design and construction provisions***

6.9.3.1.1 The general design and construction provisions in this section are deemed to be met if the bulk container complies with the requirements of ISO 1496-4:1991 "Series 1 Freight containers - Specification and testing - Part 4: Non-pressurized containers for dry bulk" and the container is siftproof.

6.9.3.1.2 Freight containers designed and tested in accordance with ISO 1496-1:1990 "Series 1 Freight containers - Specification and testing - Part 1: General cargo containers for general purposes" shall be equipped with operational equipment which is, including its connection to the freight container, designed to strengthen the end walls and to improve the longitudinal restraint as necessary to comply with the test requirements of ISO 1496-4:1991, as relevant.

6.9.3.1.3 Bulk containers shall be siftproof. Where a liner is used to make the container siftproof, it shall be made of a suitable material. The strength of the material used for, and the construction of, the liner shall be appropriate to the capacity of the container and its intended use. Joins and closures of the liner shall withstand pressures and impacts liable to occur under normal conditions of handling and transport. For ventilated bulk containers, any liner shall not impair the operation of ventilating devices.

6.9.3.1.4 The operational equipment of bulk containers designed to be emptied by tilting shall be capable of withstanding the total filling mass in the tilted orientation.

6.9.3.1.5 Any movable roof or side or end wall or roof section shall be fitted with locking devices with securing devices designed to show the locked state to an observer at ground level.

6.9.3.2 ***Service equipment***

6.9.3.2.1 Filling and discharge devices shall be so constructed and arranged as to be protected against the risk of being wrenched off or damaged during transport and handling. The filling and discharge devices shall be capable of being secured against unintended opening. The open and closed position and direction of closure shall be clearly indicated.

6.9.3.2.2 Seals of openings shall be so arranged as to avoid any damage by the operation, filling and emptying of the bulk container.

6.9.3.2.3 Where ventilation is required, bulk containers shall be equipped with means of air exchange, either by natural convection, e.g. by openings, or active elements, e.g. fans. The ventilation shall be designed to prevent negative pressures in the container at all times. Ventilating elements of bulk containers for the transport of flammable substances or substances emitting flammable gases or vapours shall be designed so as not to be a source of ignition.

6.9.3.3 ***Inspection and testing***

6.9.3.3.1 Freight containers used maintained and qualified as bulk containers in accordance with the requirements of this section shall be tested and approved in accordance with the International Convention for Safe Containers (CSC) 1972, as amended.

6.9.3.3.2 Freight containers used and qualified as bulk containers shall be inspected periodically according to that Convention.

6.9.3.4 ***Marking***

6.9.3.4.1 Freight containers used as bulk containers shall be marked with a Safety Approval Plate in accordance with the International Convention for Safe Containers.

6.9.4 Provisions for the design, construction and approval of bulk containers other than freight containers

6.9.4.1 Bulk containers covered in this section include skips, offshore bulk containers, bulk bins, swap bodies, trough shaped containers, roller containers, and load compartments of vehicles.

6.9.4.2 These bulk containers shall be designed and constructed so as to be strong enough to withstand the shocks and loadings normally encountered during transport including, as applicable, transhipment between modes of transport.

6.9.4.3 Load compartments of vehicles shall comply with the requirements of, and be acceptable to, the competent authority responsible for land transport of the dangerous goods to be transported in bulk.

6.9.4.4 These bulk containers shall be approved by the competent authority and the approval shall include the code for designating types of bulk containers in accordance with 6.9.2.3 and the provisions for inspection and testing, as appropriate.

6.9.4.5 Where it is necessary to use a liner in order to retain the dangerous goods, it shall meet the provisions of 6.9.3.1.3.

6.9.4.6 The following statement shall be shown on the transport document:

"Bulk container BK2 approved by the competent authority of …"."

PART 7

Chapter 7.1

7.1.1.5 Add to the end of the first sentence: ", for IBCs and large packagings the stacking test load shall be determined in accordance with 6.5.4.6.4 and 6.6.5.3.3.4 respectively".

7.1.5.3 Amend "Materials" to read "Material".

7.1.7.1.1 Amend to read:

"*Closed cargo transport unit* means a unit which fully encloses the contents by permanent structures and can be secured to the ship's structure, and includes a magazine. Cargo transport units with fabric sides or tops are not closed cargo transport units. Where this stowage is specified, stowage in small compartments such as deck-houses and mast lockers are acceptable alternatives. The floor of any closed cargo transport unit or compartment shall either be constructed of wood, close-boarded or so arranged that goods are stowed on sparred gratings, wooden pallets or dunnage. Provided that the necessary additional specifications are met, a closed cargo transport unit may be used for type "A" or "C" class 1 stowage or as a magazine."

7.1.7.1.7.1 Delete the term "when stowed under deck".

7.1.7.3 Amend to read: "Goods of class 1 requiring *under deck* and *on deck* stowage shall be stowed in accordance with 7.1.7.4. However, the provisions of ...".

7.1.7.4 Amend to read "Stowage provisions for goods of class 1".

7.1.7.4.1 Add new "General".

7.1.7.4.1 (existing) becomes "7.1.7.4.1.1.

.3 Amend to read "in all cases, all goods, including goods of class 1 stowed in cargo transport units, within the compartment or …".

7.1.7.4.1.2 Add to read "Goods of class 1 with the exception of goods in division 1.4, shall not be stowed in the outermost row.".

7.1.8.1.1
7.1.10.1.1 } For "shall, in general," read "should".

7.1.14.13 Amend the beginning to read as follows: "A freight container, tank, IBC or conveyance dedicated to the transport of unpackaged radioactive material under exclusive use …".

7.1.14.5.3 Amend the end to read: "… of the conveyance, except for consignments transported under exclusive use by road or rail, for which the radiation limits around the vehicle are specified in 7.1.14.7.2 and 7.1.14.7.3".

Chapter 7.2

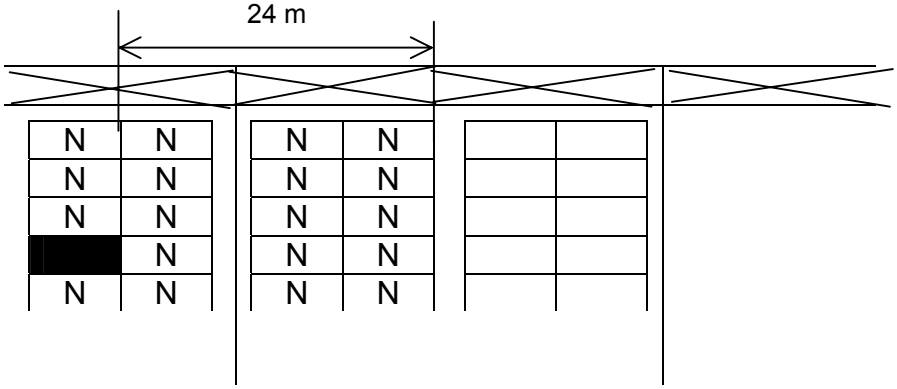
7.2.1.7.2.7 Add "(including their organometallic compounds)".

7.2.1.7.2.9 Amend to read "Lead and its compounds".

7.2.1.7.2.12 Amend to read "nitrites and their mixtures".

7.2.1.7.2.18 Add ".18 alkalis".

7.2.3.2 (page 368) In reference to the segregation provisions relating to ""Separated longitudinally by intervening complete compartment or hold from" .4 closed versus closed", amend the "Top view hold" sketch to show:



7.2.3.3 In table .3 and .4, in "ON DECK" column, add "IN OR" (x 5).

7.2.5.1.1 Add at end ", see also chapter 7.6.".

7.2.7.1.3.1 Delete last example "3203, etc." and add

ORGANOMETALLIC SUBSTANCE, LIQUID, PYROPHORIC	3392	4.2
ORGANOMETALLIC SUBSTANCE, LIQUID, PYROPHORIC, WATER-REACTIVE	3394	4.2

7.2.7.2.1.5 Insert present 7.2.7.4.

7.2.7.4 Delete.

7.2.9.1 (b) Amend the end of this subparagraph to read: "…to the critical group, taking account of the exposures expected to be delivered by all other relevant sources and practices under control.".

7.2.9.4 Amend to read as follows:
"Any group of packages, overpacks, and freight containers containing fissile material stored in transit in any one storage area shall be so limited that the total sum of the criticality safety indexes in the group does not exceed 50. Each group shall be stored so as to maintain a spacing of at least 6 m from other such groups."

Chapter 7.3

7.3.3.2 Add a new paragraph to read as follows:

"7.3.3.2 Decontamination

A cargo transport unit, a bulk container or a cargo space of a ship, which has been used to transport infectious substances, shall be inspected for release of the substance before re-use. If infectious substances were released during transport, the cargo transport unit, the bulk container or the cargo space of a ship shall be decontaminated before it is re-used. Decontamination may be achieved by any means which effectively inactivates the infectious substance released.".

7.3.4.3 Amend title of IAEA document to read: "Planning and Preparing for Emergency Response to Transport Accidents involving Radioactive Material", Safety Guide No. TS-G-1-2 (ST-3) (ISBN 92-0-111602-0).

7.3.5.2 Amend "7.3.5" to read "7.3.6".

7.3.7.3.2 Insert "pressure" before "receptacles".

Chapter 7.4

7.4.3 Amend to read:

"**7.4.3 Fumigated units**

7.4.3.1 Cargo transport units under fumigation (fumigated units) shall be carried on board ships in accordance with the provisions of this Code relevant to the Proper Shipping Name FUMIGATED UNIT and UN number UN 3359 shown in the Dangerous Goods List in chapter 3.2. Particular transport conditions concerning UN 3359 are set out in special provision 910 in chapter 3.3.

7.4.3.2 A fumigated unit shall not be allowed on board until a sufficient period has elapsed to attain a reasonable uniform gas concentration throughout the cargo in it. Because of variations due to types and amounts of fumigants and commodities and temperature levels, the period between fumigant application and loading of the fumigated unit on board the ship shall be determined by the competent authority. Twenty-four hours is normally sufficient for this purpose. Unless the doors of a fumigated unit have been opened to allow the fumigant gas(es) and residues to be completely

ventilated or the unit has been mechanically ventilated, the shipment shall conform to the provisions of this Code concerning UN 3359.

7.4.3.3 The master shall be informed prior to the loading of a fumigated unit.

7.4.4.1.3 Amend to read "A cargo transport unit packed or loaded with flammable gas or flammable liquid having a flashpoint below +23°C c.c. transported *on deck* shall be stowed "away from" (as defined in 7.2.2.2.1) possible sources of ignition. In the case of container ships, a distance equivalent to one container space athwartships away from possible sources of ignition applied in any direction will satisfy this requirement.".

Chapter 7.6

7.6.4.5 Add new "For segregation on shipborne barges and on board barge-carrying ships, see 7.2.5.".

7.6.8.2 Delete "Portable magazines and".

7.6.8.3.1 Delete "portable steel magazines or in".

Chapter 7.9

Amend chapter 7.9 to read:

"CHAPTER 7.9

Exemptions, Approvals and Certificates

7.9.1 Exemptions

Note 1 The provisions of this section do not apply to exemptions mentioned in chapters 1 to 7.8 of this Code (e.g. exemptions for limited quantities in 3.4.7) and to approvals (including permits, authorizations or agreements) and certificates which are referred to in chapters 1 to 7.8 of this Code. For the said approvals and certificates, see 7.9.2.

Note 2 The provisions of this section do not apply to class 7. For consignments of radioactive material for which conformity with any provision of this Code applicable to class 7 is impracticable, refer to 1.1.3.4.

7.9.1.1 Where this Code requires that a particular provision for the transport of dangerous goods shall be complied with, a competent authority or competent authorities (port State of departure, port State of arrival or flag State) may authorize any other provision by exemption if satisfied that such provision is at least as effective and safe as that required by this Code. Acceptance of an exemption authorized under this section by a competent authority not party to it is subject to the discretion of that competent authority. Accordingly, prior to any shipment covered by the

exemption, the recipient of the exemption shall notify other competent authorities concerned.

7.9.1.2 Competent authority or competent authorities which have taken the initiative with respect to the exemption:

.1 shall send a copy of such exemption to the International Maritime Organization which shall bring it to the attention of the Contracting Parties to SOLAS and/or MARPOL, as appropriate; and

.2 if appropriate, take action to amend the IMDG Code to include the provisions covered by the exemption.

7.9.1.3 The period of validity of the exemption shall be not more than five years from the date of authorization. An exemption that is not covered under 7.9.1.2.2 may be renewed in accordance with the provisions of this section.

7.9.1.4 A copy of the exemption shall accompany each consignment when offered to the carrier for transport under the terms of the exemption. A copy of the exemption or an electronic copy thereof shall be maintained on board each ship transporting dangerous goods in accordance with the exemption, as appropriate.

7.9.2 Approvals (including permits, authorizations or agreements) and certificates

7.9.2.1 Approvals, including permits, authorizations or agreements, and certificates referred to in chapters 1 to 7.8 of this Code and issued by the competent authority (authorities when the Code requires a multilateral approval) or a body authorized by that competent authority (e.g. approvals for alternative packaging in 4.1.3.7, approval for segregation as in 7.2.2.3 or certificates for portable tanks in 6.7.2.18.1) shall be recognized, as appropriate:

.1 by other contracting parties to SOLAS if they comply with the requirements of the International Convention for the Safety of Life at Sea (SOLAS), 1974, as amended; and/or

.2 by other contracting parties to MARPOL if they comply with the requirements of the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto (MARPOL 73/78, Annex III), as amended.

7.9.3 Addresses of competent authorities

An indicative list of addresses in individual countries to which inquiries regarding competent authority exemptions, approvals (including permits, authorizations or

agreements) and certificates can be referred is given in this paragraph. Corrections to these addresses should be sent to the Organization.*

Table of 7.9.3 unchanged except for:

In the entry for AUSTRALIA, delete the existing contact addresses and the footnote and add a new contact address in the addresses of the offices of the designated national competent authorities to read:

"*Canberra*
Manager, Ship Inspection
Maritime Operations
Australian Maritime Safety Authority
GPO Box 2181
Canberra ACT 2601
AUSTRALIA
Telephone: +61 2 6279 5048
Fax: +61 2 6279 5058
Email: psc@amsa.gov.au
Website: http://www.amsa.gov.au

In the entry for BELGIUM, amend the contact addresses of the offices of the designated national competent authorities to read:

Antwerp Office
Federale Overheidsdienst Mobiliteit en Vervoer
Maritiem Vervoer
Scheepvaartveiligheid
Loodsgebouw
Tavernierkaai 3
B–2000 Antwerpen
BELGIUM
Telephone: +32 3 229 00 30
Fax: +32 3 229 00 31
Email: sc.antwerpen@mobilit.fgov.be

* International Maritime Organization
4 Albert Embankment
London SE1 7SR
United Kingdom
Email: info@imo.org
Fax: +44 20 7587 3120

Brussels Office
Federal Public Service Mobility and Transport
Directorate-General Maritime Transport
Aarlenstraat 104
B–1040 Brussels
BELGIUM
Telephone: +32 2 233 12 11
Fax: +32 2 230 30 02

Ostend Office
Federale Overheidsdienst Mobiliteit en Vervoer
Maritiem Vervoer
Scheepvaartcontrole
Natiënkaai 5
B–8400 Oostende
BELGIUM
Telephone: +32 59 56 14 50
Fax: +32 59 56 14 82
Email: sc.oostende@mobilit.fgov.be

In the entry for BRAZIL, amend the contact address of the offices of the designated national competent authorities to read:

Diretoria de Portos e Costas (DPC-20)
Rua Teófilo Otoni No. 4
Centro
Rio de Janeiro
CEP 20090-070
BRAZIL
Telephone: +55 21 2104 5203
Fax: +55 21 2104 5202
Email: secom@dpc.mar.mil.br

In the entry for ESTONIA, amend the contact address of the offices of the designated national competent authorities to read:

Estonian Maritime Administration
Maritime Safety Division
Valge 4
EST-11413 Tallinn
ESTONIA
Telephone: +372 6205 700/715
Fax: +372 6205 706
Email: mot@vta.ee

In the entry for GERMANY, amend the contact addresses of the offices of the designated national competent authorities to read:

Federal Ministry of Transport, Building and Housing
Dangerous Goods Branch
Robert-Schuman-Platz 1
D-53175 Bonn
GERMANY
Telephone: +49 228 3000 or 300-extension
+49 228 300 2643
Fax: +49 228 300 3428
Email: Ref-A33@bmvbw.bund.de

Packing, Testing and Certification Institute:

Federal Institute for Materials Research and Testing
Bundesanstalt für Materialforschung und-prüfung (BAM)
Unter den Eichen 87
D-12205 Berlin
GERMANY
Telephone: +49 30 81 04 0 or Extension
+49 30 8104 1310
+49 30 8104 3407
Fax: +49 30 8104 1227
Email: ingo.doering@bam.de

In the entry for JAPAN, amend the first contact address of the office of the designated national competent authorities to read:

Inspection and Measurement Division
Maritime Bureau
Ministry of Land, Infrastructure and Transport
2-1-3 Kasumigaseki, Chiyoda-ku
Tokyo
JAPAN
Telephone: +81 3 5253 8639
Fax: +81 3 5253 1644
Email: MRB_KSK@mlit.go.jp

In the entry for the REPUBLIC OF KOREA, amend the contact addresses of the offices of the designated national competent authorities to read:

Maritime Safety Policy Division
Maritime Safety Management Bureau
Ministry of Maritime Affairs and Fisheries
50 Chungjeong-no, Seodaemun-gu, Seoul, 120-715,
REPUBLIC OF KOREA
Telephone : +82-2-3148-6312
Telefax : +82-2-3148-6317

Marine Environment & Safety Division
Busan Regional Maritime Affairs and Fisheries Office,
1116-1 Jwachon-dong, Dong-gu, Busan, 601-726,
REPUBLIC OF KOREA
Telephone : +82-51-609-6530
Telefax : +82-51-609-6529

Marine Environment & Safety Division
Incheon Regional Maritime Affairs and Fisheries Office
1-17 Hang-dong 7(chil)-ga, Jung-gu, Incheon, 400-705,
REPUBLIC OF KOREA
Telephone : +82-32-880-6451, 885-0014
Telefax : +82-32-885-0032

Seafarers and Ship Division
Yeosu Regional Maritime Affairs and Fisheries Office
335-1 Sujeong-dong, Yeosu, Chonnam, 550-705,
REPUBLIC OF KOREA
Telephone : +82-61-660-9044
Telefax : +82-61-662-6999

Seafarers and Ship Division
Masan Regional Maritime Affairs & Fisheries Office
1-5 Wolpo-dong, Masan, Kyeongnam, 631-709,
REPUBLIC OF KOREA
Telephone : +82-55-249-0325
Telefax : +82-55-242-1260

Seafarers and Ship Division
Ulsan Regional Maritime Affairs and Fisheries Office
139-9 Maeam-dong, Nam-gu, Ulsan, 680-050,
REPUBLIC OF KOREA
Telephone : +82-52-228-5550
Telefax : +82-52-228-5559

Seafarers and Ship Division
Donghae Regional Maritime Affairs and Fisheries Office
606 Songjung-dong, Donghae, Kangwondo, 240-130,
REPUBLIC OF KOREA
Telephone : +82-33-520-0688
Telefax : +82-33-521-6502

Seafarers and Ship Division
Kunsan Regional Maritime Affairs and Fisheries Office
1-7 Jangmi-dong, Kunsan, Chonbuk, 573-030,
REPUBLIC OF KOREA
Telephone : +82-63-441-2222
Telefax : +82-63-441-2351

Seafarers and Ship Division
Mokpo Regional Maritime Affairs and Fisheries Office
1482 Sanjung-dong, Mokpo, Chonnam, 530-350
REPUBLIC OF KOREA
Telephone : +82-61-242-1303
Telefax : +82-61-242-1392

Seafarers and Ship Division
Pohang Regional Maritime Affairs and Fisheries Office
58-8 Hanggu-dong, Pohang, Kyeongbuk, 790-120,
REPUBLIC OF KOREA
Telephone : +82-54-245-1534
Telefax : +82-54-242-1326

Seafarers and Ship Division
Jeju Regional Maritime Affairs and Fisheries Office
918 Geonip-dong, Jeju , Jeju Province, 690-704,
REPUBLIC OF KOREA
Telephone : +82-64-720-2642
Telefax : +82-64-720-2644

Seafarers and Ship Division
Daesan Regional Maritime Affairs & Fisheries Office
438-1 Gieun-ri, Daesan-eup, Seosan, Chungnam, 356-871,
REPUBLIC OF KOREA
Telephone : +82-41-660-7700
Telefax : +82-41-663-0356

Testing and Certification
Korean Register of Shipping
23-7 Jang-dong, Yusung-gu, Daejeon, 305-600,
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Telephone : +82-42-869-9330
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Inspecting Dangerous Goods Containers
Korea Maritime Dangerous Goods Inspection Center
112-2 Inui-dong, Jongro-gu, Seoul, 110-410,
REPUBLIC OF KOREA
Telephone : +82-2-766-1631
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In the entry for SWEDEN, amend the contact address of the office of the designated national competent authorities to read:

Swedish Maritime Administration
Maritime Safety Inspectorate
Ship Technical Division
SE-601 78 Norrköping
SWEDEN
Telephone: +46 11 19 10 00
Telefax: +46 11 23 99 34
Email: inspektion@sjofartsverket.se

SP, Swedish National Testing and Research Institute
Building Technology and Mechanics
Box 857
SE-501 15 Borås
SWEDEN
Telephone: +46 33 16 50 00
Telefax: +46 33 13 55 02

In the entry for SWITZERLAND, amend the contact address of the office of the designated national competent authorities to read:

Office suisse de la navigation maritime
Nauenstrasse 49
P. O. Box
CH-4002 Basel
SWITZERLAND
Telephone: +41 61 270 91 20
Fax: +41 61 270 91 29
Email: dv-ssa@eda.admin.ch

VOLUME 2

PART 3
Contents

Delete chapter 3.5 and the subsequent subchapters

Amend the title of PART 6 to read:

« … PORTABLE TANKS, MULTIPLE-ELEMENT GAS CONTAINERS (MEGCs) AND ROAD TANK VEHICLES »

Chapter 3.1

3.1.2.2.3 Replace the existing text with the following:

"UN 2793 FERROUS METAL BORINGS, SHAVINGS, TURNINGS or CUTTINGS in a form liable to self-heating. The Proper Shipping Name is the most appropriate of the following combinations:

FERROUS METAL BORINGS
FERROUS METAL SHAVINGS
FERROUS METAL TURNINGS
FERROUS METAL CUTTINGS"

3.1.2.4 Replace the existing paragraph with the following text:

"3.1.2.4 Many substances have an entry for both the liquid and solid state (see definitions for liquid and solid in 1.2.1), or for the solid and solution. These are allocated separate UN numbers which are not necessarily adjacent to each other. Details are provided in the alphabetical index, e.g.:

NITROXYLENES, LIQUID	-	6.1	1665
NITROXYLENES, SOLID	-	6.1	3447"

3.1.2.7 Replace "included" with "transported".

3.1.2.8.1 Replace "their technical" with "the technical" in the first sentence.

3.1.2.8.1.4 Replace "UN 2003 METAL ALKYL, WATER-REACTIVE, N.O.S (trimethylgallium)" with "UN 3394 ORGANOMETALLIC SUBSTANCE, LIQUID, PYROPHORIC, WATER-REACTIVE (trimethylgallium)".

3.1.3.3 Align wording with 2.0.2.9.

3.1.4.2 Amend the third sentence to read:

"Although these N.O.S. entries are not themselves listed in the above groups, the consignor shall decide whether inclusion under the segregation group is appropriate and, if so, shall mention that fact in the transport document (see 5.4.1.5.11)."

3.1.4.4.1 Add the following UN numbers in the list of acids:

"1250 methyltrichlorosilane
1298 trimethylchlorosilane
1305 vinyltrichlorosilane
1717 acetyl chloride
1723 allyl iodide
1745 bromine pentafluoride
1746 bromide trifluoride
1770 diphenyl methylbromide
1798 nitrohydrochloric acid
1815 propionyl chloride
1873 perchloric acid with more than 50% but not more than 72% acid, by mass”
2353 N,N-dimethylaniline
2395 isobutyrylchloride
2495 iodine pentafluoride
2626 chloric acid, aqueous solution
3361 chlorosilanes, toxic, corrosive, n.o.s.
3362 chlorosilanes, toxic, corrosive, flammable, n.o.s."

Add an asterisk after the proper shipping names of UN Nos. 1052, 1777, 1786, 1787, 1788, 1789, 1790, 1796, 1798, 1802, 1826, 1830, 1831, 1832, 1873, 1906, 2031, 2032, 2240, 2308 and 2796.

Add the following at the end of the list (NOT END OF THE PAGE) of the segregation group for acids:

"* : identifies strong acids"

Delete UN 2812 and UN 3093 from segregation group **1 acids**.

Amend the list of acids to read:

"1742 boron trifluoride acetic acid complex, liquid
1743 boron trifluoride propionic acid complex, liquid
1805 phosphoric acid, liquid
1938 bromoacetic acid solution
2308 nitrosylsulphuric acid, liquid"

Add to the list of acids:

"3419 boron trifluoride acetic acid complex, solid
3420 boron trifluoride propionic acid complex, solid
3421 potassium hydrogendifluoride solution
3425 bromoacetic acid, solid
3453 phosphoric acid, solid
3456 nitrosylsulphuric acid, solid"

3.1.4.4.2 Add the following UN numbers:

"0004 Ammonium picrate dry or wetted with less than 10% water, by mass
0402 Ammonium perchlorate"

Delete UN 0223 and 2072

Amend to read:

"1835 tetramethylammonium hydroxide solution
1843 ammonium dinitro-o-cresolate, solid"

Add:

"3423 tetramethylammonium hydroxide, solid
3424 ammonium dinitro-o-cresolate solution"

3.1.4.4.4 Amend to read:

"1445 barium chlorate, solid
1459 chlorate and magnesium chloride mixture, solid"

Add:

"3405 barium chlorate solution
3407 chlorate and magnesium chloride mixture solution"

3.1.4.4.6 Amend to read:

"1680 potassium cyanide, solid
1689 sodium cyanide, solid
1694 bromobenzyl cyanides, liquid"

Add:

"3413 potassium cyanide solution
3414 sodium cyanide solution
3449 bromobenzyl cyanides, solid"

3.1.4.4.7 Amend the heading "7 Heavy metals and their salts" to read "7 Heavy metals and their salts (including their organometallic compounds)".

Delete UN 1477 Nitrates, inorganic, n.o.s., and UN 3282 Organometallic compound, toxic, n.o.s., from segregation group 7.

Amend to read:

"1470 lead perchlorate, solid"

Add:

"1389 alkali metal amalgam, liquid
1392 alkaline earth metal amalgam, liquid
3401 alkali metal amalgam, solid
3402 alkaline earth metal amalgam, solid
3408 lead perchlorate solution"

3.1.4.4.8 In "**8 Hypochlorites**", insert the entry "UN 2880 Calcium hypochlorite, hydrated or Calcium hypochlorite, hydrated mixture with not less than 5.5% but not more than 16% water after UN 2741".

3.1.4.4.9.1.1 Amend to read: "Lead and its compounds"

Amend to read:

"1470 lead perchlorate, solid"

Add:

"3408 lead perchlorate solution"

3.1.4.4.11 Add:

"1389 alkali metal amalgam, liquid
1392 alkaline earth metal amalgam, liquid
3401 alkali metal amalgam, solid
3402 alkaline earth metal amalgam, liquid"

3.1.4.4.13 Amend to read:

"1447 barium perchlorate, solid
1470 lead perchlorate, solid"

Add:

"3406 barium perchlorate solution
3408 lead perchlorate solution"

3.1.4.4.16 Add:

"3377 sodium perborate monohydrate
3378 sodium carbonate peroxyhydrate"

Add to 3.1.4.4 a new segregation group for alkalis as follows:

"18 Alkalis

1005 ammonia, anhydrous
1160 dimethylamine, aqueous solution
1163 dimethylhydrazine, unsymmetrical
1235 methylamine, aqueous solution
1244 methylhydrazine
1382 potassium sulphide, anhydrous or potassium sulphide with less than 30% water of crystallization
1385 sodium sulphide, anhydrous or sodium sulphide with less than 30% water of crystallization
1604 ethylenediamine
1719 caustic alkali liquid, n.o.s.
1813 potassium hydroxide, solid
1814 potassium hydroxide, solution
1819 sodium aluminate solution
1823 sodium hydroxide, solid
1824 sodium hydroxide solution
1825 sodium monoxide
1835 tetramethylammonium hydroxide
1847 potassium sulphide, hydrated with not less than 30% water of crystallization
1849 sodium sulphide, hydrated with not less than 30% water
1907 soda lime with more than 4% sodium hydroxide
1922 pyrrolidine
2029 hydrazine, anhydrous
2030 hydrazine, aqueous solution
2033 potassium monoxide
2073 ammonia solution relative density less than 0.880 at 15°C, with more than 35% but not more than 50% ammonia
2079 diethylenetriamine
2259 triethylenetetramine
2270 ethylamine, aqueous solution
2318 sodium hydrosulphide with less than 25% water of crystallization
2320 tetraethylenepentamine
2379 1,3-diemthylbutylamine
2382 dimethylhydrazine, symmetrical
2386 1-ethylpiperidine
2399 1-methylpiperidine
2401 piperidine
2491 ethanolamine or ethanolamine solution
2579 piperazine

2671 aminopyridines
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 by mass
2677 rubidium hydroxide solution
2678 rubidium hydroxide, solid
2679 lithium hydroxide solution
2680 lithium hydroxide
2681 caesium hydroxide solution
2682 caesium hydroxide
2683 ammonium sulphide solution
2733 amines, liquid, corrosive, flammable, n.o.s. or polyamines, liquid, corrosive, flammable, n.o.s.
2734 amines, liquid, flammable, corrosive, n.o.s. or polyamines, liquid, flammable, corrosive, n.o.s.
2735 amines, liquid, corrosive, n.o.s. or polyamines, liquid, corrosive, n.o.s.
2795 batteries, wet, filled with alkali electric storage
2797 battery fluid, alkali
2818 ammonium polysulphide solution
2949 sodium hydrosulphide, solid with not less than 25% water of crystallization
3028 batteries, dry, containing potassium hydroxide, solid electric storage
3073 vinylpyridines, stabilized
3253 disodium trioxosilicate
3259 amines, solid, corrosive, n.o.s. or polyamines, solid, corrosive, n.o.s.
3262 corrosive solid, basic, inorganic, n.o.s.
3263 corrosive solid, basic, organic, n.o.s.
3266 corrosive liquid, basic, inorganic, n.o.s.
3267 corrosive liquid, basic, organic, n.o.s.
3293 hydrazine, aqueous solution with not more than 37% hydrazine, by mass
3318 ammonia solution relative density less than 0.880 at 15°C in water, with more than 50% ammonia
3320 sodium borohydride and sodium hydroxide solution with not more than 12% sodium borohydride and not more than 40% sodium hydroxide, by mass
3423 tetramethylammonium hydroxide, solid"

Add for the above entries the sentence ""separated from" acids" in column 16 of the Dangerous Goods List.

Add for the above entries the sentence “reacts violently with acids” in column 17 of the Dangerous Goods List.

Chapter 3.2

3.2.1 Column 2 Add the following sentence at the end of the existing text:
"Unless otherwise indicated for an entry in the Dangerous Goods List, the word "SOLUTION" in a Proper Shipping Name means one or more named dangerous goods dissolved in a liquid that is not otherwise subject to this Code. When a flashpoint is mentioned in this column, the data is based on closed-cup (c.c) methods.".

Column 8 Delete "A code including the letters "BP" refers to the use of bulk packagings described in chapter 4.3." and "or "BP""; insert "or" between "P" and "LP".

Column 13 Amend to read "UN tank and Bulk container instructions".

Amend the second paragraph to read:
"When a T code is not provided in this column, it means that the dangerous goods are not authorized for transport in tanks unless specifically approved by the competent authority.".

Add the following sentences at the end of the existing amended text:
"Bulk container code – The code "BK2" refers to closed bulk containers used for the transport of bulk goods described in chapter 6.9. When a bulk container code is not provided, it means that the substance is not permitted in a bulk container. Transport in sheeted bulk containers is not permitted in this Code.".

3.2.1 In column 8, delete "When "N/R" is ... packaged.".

Dangerous Goods List. Move title page 3 pages forward before 3.2.1.

In column 2 of the Dangerous Goods List, delete "c.c.".

Amend the heading applicable to columns 12, 13 and 14 to read: "Portable tanks and bulk containers". Amend the heading of column 12 to read "IMO tank instructions", the heading of column 13, to read "UN tank instructions" and the heading of column 14 to read "Provisions".

For UN Nos. 1611 and 1704 add "T7" and "TP2" in columns 13 and 14 respectively.
In the Dangerous Goods List, assign "TP5" in column 14 to each refrigerated liquid gas that is assigned "T75" in column 13. (Apply to UN Nos. 1003, 1038, 1073, 1913, 1951, 1961, 1963, 1966, 1970, 1972, 1977, 2187, 2201, 2591, 3136, 3138, 3158, 3311 and 3312).

For UN Nos. 0331, 0332 and 3375, insert "T1" in column 13 and "TP1", "TP17" and "TP32" in column 14; and for UN 3375 delete "T2" from column 13 and "TP9" from column 14.

For UN Nos. 1334, 1350, 1363, 1376, 1386, 1395, 1398, 1402, 1408, 1435, 1438, 1446, 1454, 1469, 1474, 1485, 1486, 1495, 1498, 1499, 1942, 2067, 2071, 2211, 2213, 2216, 2217, 2793, 2950, 2969, 3170, 3175, 3243, 3244 and 3314 delete "BP" from column 8.

For UN Nos. 1334, 1350, 1438, 1454, 1474, 1486, 1495, 1498, 1499, 1942, 2067, 2213, 2969, 3170 (PG II and III), 3175, 3243, 1363, 1376, 1386, 1395, 1398, 1402, 1408, 1435, 1446, 1469, 1485, 2071, 2211, 2216, 2217, 2793, 2900, 2950, 3244 and 3314, insert "BK2" in column 13.

For the liquid, packing group I entries of UN Nos. 1583, 2810, 2927, 2929, 3122, 3123, 3275, 3276, 3278, 3279, 3280, 3281, 3287 and 3289 insert "315" in column 6.

For all the UN Nos. containing the words "fissile-excepted" in lower case in column 2, insert "317" in column 6. (*Apply to UN Nos.: 2912, 2913, 2915, 2916, 2917, 2919, 2978, 3321, 3322, 3323 and 3332*).

For UN Nos. 1366, 1370, 2005, 2445, 3051, 3052, 3053 and 3076, add "320" in column 6.

UN 0113 Amend the proper shipping name in column 2 to read: "GUANYL NITROSAMINOGUANYLIDENE HYDRAZINE, WETTED with not less than 30% water, by mass".

UN 0118 Delete comma after "(HEXOTOL)".

UN 0498, UN 0499 In column 17, amend "liquid" to read "solid".

UN 0503 In columns 2 and 17, for "AIR-BAG" read "AIR BAG".

UN 1010 Add the following text at the end of the existing name in column 2:
"or BUTADIENES AND HYDROCARBON MIXTURE, STABILIZED with more than 40% butadienes".

UN 1057 Replace "P003" with "P002" in column 8 and add "PP84" in column 9.

UN 1062 Amend spelling of "chloropicrin".

UN 1070 In column 15, underline "F-C".

UN 1153 Insert an entry after UN 1153, PG II to read: "1153", "ETHYLENE GLYCOL DIETHYL ETHER", "3", "-", "III" "-", "5 l", "P001, LP01", "-", "IBC03", "-", "T1", "T2", "TP1", "F-E, S-D", "Category A", "see entry above", "1153".

UN 1203 (Amend the proper shipping name in the French amendment only.).

UN 1265 Amend column 2 to read "PENTANES, liquid".

UN 1278 In column 15 replace "S-C" with "S-D".

UN 1305 Delete ", STABILIZED" in column 2.

UN 1327 Add "29" in column 6.

UN 1350 In column 8 add "P002", and in column 17 delete ": (1) transported in quantities of less than 400 kg per package, or (2)".

UN 1364 Add "29" and delete "281" in column 6.

UN 1365 Delete "281" in column 6.

UN 1389 Delete the solid entry and "or solid" in column 17 of the liquid entry.

UN 1392 Delete the solid entry and delete "IBC04" and "B1" in columns 10 and 11 of the liquid entry respectively.

UN 1403 Insert "934" in column 6 and delete "933".

UN 1404 Delete "934" in column 6.

UN 1408 Insert "B6" in column 11.

UN 1420 Add ", LIQUID" in column 2, replace "P403" with "P402" in column 8, delete "IBC04" and "B1" in columns 10 and 11 respectively and delete "solid or" in column 17.

UN 1422 Add ", LIQUID" in column 2, replace "P403" with "P402" in column 8, delete "IBC04" and "B1" in columns 10 and 11 respectively and delete "solid or" in column 17.

UN 1445 Delete the solution entry and delete ", or aqueous solutions" in column 17 (first sentence) of the solid entry.

UN 1447 Delete the solution entry and delete ", or aqueous solutions" in column 17 (first sentence) of the solid entry.

UN 1459 Delete the solution entries (PG II and PG III) and delete "aqueous" and "or solution" in column 17 (first sentence) of the solid entry (PG II).

UN 1470 Delete the solution entry and delete ", or aqueous solutions" in column 17 (first sentence) of the solid entry.

UN 1471 Amend "should" to read "shall" in column 16.

UN 1326
UN 1352
UN 1358
UN 1871 Amend column 9 to read: "PP31 PP40".

UN 1564 Add "LP02" in column 8 for PG III entry.

UN 1577 Delete the solid entry. In column 17 (liquid entry), delete "crystals or" in the first sentence and delete the second sentence.

UN 1578 Delete the liquid entry. In column 17 (solid entry), delete "see entry above" and insert the following paragraph "Yellows crystals. Melting point: approximately 30°C to 80°C. Toxic if swallowed, by skin contact or by inhalation.".

UN 1579 Delete the solution entry. Add "LP02" in column 8 (solid entry) and amend the first sentence in column 17 (solid entry) to read "Dry solid or paste".

UN 1590 Delete the solid entry.

UN 1597 Delete the solid entry. Replace "IBC02" by "IBC03" in column 10 (liquid entry, PG II). Delete "dust" in column 17 (liquid entry, PG II) and add a new entry for PG III as follows: "1597", "DINITROBENZENES, LIQUID", "6.1", "-", "III", "223", "5 l", "P001, LP01", "-", "IBC03", "-", "-", "T7", "TP2", "F-A, S-A", "Category A, "separated from" class 3", "see entry above".

UN 1650 Delete the liquid entry. Add "IBC08" and "B2, B4" in column 10 and 11 (solid entry) respectively.

UN 1656 Delete the solid entry. Amend column 2 (liquid entry, PG II) to read "NICOTINE HYDROCHLORIDE, LIQUID or SOLUTION", delete the first sentence and replace the second sentence by "Miscible with water" in column 17 (liquid entry, PG II). Add a new entry for PG III as follows: "1656", "NICOTINE HYDROCHLORIDE, LIQUID or SOLUTION", "6.1", "-", "III", "43, 223", "5 l", "P001, LP01", "-", "IBC03", "-", "-", "-", "-", "F-A, S-A", "Category A", "see entry above".

UN 1658 Delete the solid entry. Delete the first sentence and replace the second sentence by "Miscible with water" in column 17 (liquid entry, PG II). Add a new entry for PG III as follows: "1658", "NICOTINE SULPHATE SOLUTION", "6.1", "-", "III", "223", "5 l", "P001, LP01", "-", "IBC03", "-", "-", "T7", "TP2", "F-A, S-A", "Category A", "see entry above".

UN 1664 Delete the solid entry. Amend column 17 (liquid entry) to read: "Yellow liquids. Melting points: ortho-NITROTOLUENE: -4°C, meta-NITROTOLUENE: 15°C. Toxic if swallowed, by skin or by inhalation.".

UN 1665 Delete the solid entry. Delete "T13" in column 12 (liquid entry). Amend column 17 (liquid entry) to read: "Yellows liquids. Melting points: 2-NITRO-3-XYLENE: 14°C to 16°C, 3-NITRO-2-XYLENE: 7°C to 9°C, 4-NITRO-3-XYLENE: 2°C. Immiscible with water. Toxic if swallowed, by skin contact or by inhalation.".

UN 1680 Delete the solution entry. In column 17 (solid entry), amend the first and the second sentences to read: "White, deliquescent crystals or lumps. Soluble in water".

UN 1689 Delete the solution entry. Delete "B1" in column 11 (solid entry). Delete "see entry above" and insert the following text in column 17 (solid entry): "White, deliquescent crystals or lumps. Soluble in water. Reacts with acids or acid fumes,

evolving hydrogen cyanide, a highly toxic and flammable gas. Highly toxic if swallowed, by skin contact or by dust inhalation.".

UN 1690 Delete the solution entry. In column 4 (solid entry), delete "**.**". In column 17 (solid entry), delete "or colourless liquid" in the first sentence.

UN 1693 Delete the solid entries (PG II and III).

UN 1694 Delete the solid entry. In column 17 (liquid entry), delete ", yellow crystals or" in the first sentence and delete ", meta-BROMOBENZYL CYANIDE 25°C" in the second sentence.

UN 1697 Delete the liquid entry. In column 17 (solid entry), delete "see entry above" and insert the following: "White crystals evolving irritating vapour ("Tear Gas"). Melting point may be as low as 20°C. Toxic if swallowed, by skin contact or by inhalation.".

UN 1699 Delete the solid entry. Amend the text in column 17 (liquid entry) to read: "When pure, colourless liquid. The commercial product may be a dark brown liquid. Volatile liquid evolving an irritating vapour ("Tear Gas"). Highly toxic if swallowed, by skin contact or by inhalation.".

UN 1701 Add ", LIQUID" in column 2.

UN 1708 Delete the solid entry. In column 17 (liquid entry), delete "or solids" in the first sentence and delete the second sentence.

UN 1709 Delete the solution entry. Add "LP02" in column 8 (solid entry). In column 17 (solid entry), delete "see entry above" and insert the following text: "White crystals or powder. Toxic if swallowed, by skin contact or by inhalation.".

UN 1711 Delete the solid entry. In column 17 (liquid entry), delete the first sentence.

UN 1729 Delete the liquid entry. In column 2 (solid entry), delete ", SOLID". Add "T3" and "TP33" in columns 13 and 14 (solid entry) respectively. In column 17 (solid entry), delete "see entry above" and insert the following text: "Crystalline powder. Melting point: 22°C. Reacts violently with water, evolving hydrogen chloride, an irritating and corrosive gas apparent as white fumes. In the presence of moisture, highly corrosive to most metals. Vapour irritates mucous membranes.".

UN 1733 Delete the solid entry. In column 2 (liquid entry), delete "SOLUTION". In column 17 (liquid entry), delete ", very deliquescent crystals or" in the first sentence.

UN 1742 Delete the solid entry. In column 17 (liquid entry), delete the first two sentences.

UN 1743 Delete the solid entry. In column 17 (liquid entry), delete the second and the third sentences.

UN 1744 Add PP82 in column 9.

UN 1748 Add "313, 314" in column 6 of the PG II entry. Replace "PP78" with "PP85" in column 9 of the PG II entry. Add a new entry for PG III as follows: "1748", "CALCIUM HYPOCHLORITE, DRY or CALCIUM HYPOCHLORITE MIXTURE, DRY with more than 39% available chlorine (8.8% available oxygen)", "5.1", "-", "III", "316", "5 kg", "P002", "PP85", "-", "-", "-", "-", "-", "F-H, S-Q", "Category D. Cargo transport units shall be shaded from direct sunlight and stowed away from sources of heat. Packages in cargo transport units shall be stowed so as to allow for adequate air circulation throughout the cargo. "Separated from" ammonium compounds, acids, cyanides, hydrogen peroxides and liquid organic substances", "see entry above".

UN 1805 Delete the solid entry. In column 2 (liquid entry), replace "LIQUID" with "SOLUTION" and add "223" in column 6 (liquid entry). In column 17 (liquid entry), amend the text to read "Miscible in water. Mildly corrosive to most metals.".

UN 1811 Delete the liquid entry. Amend the name in column 2 (solid entry) to read "POTASSIUM HYDROGEN DIFLUORIDE, SOLID". In column 17 (solid entry) delete "see entry above" and insert the following text: "White crystalline solid. Decomposed by heat or acids, evolving hydrogen fluoride, a toxic, extremely irritating and corrosive gas apparent as white fumes. In the presence of moisture, highly corrosive to glass, other siliceous materials and most metals. Toxic if swallowed, by skin contact or by inhalation. Causes burns to skin, eyes and mucous membranes.".

UN 1812 Delete the solution entry. In column 17 (solid entry) delete "see entry above" and insert the following text: "White, deliquescent crystals or powder. Decomposed by acids, evolving hydrogen fluoride, irritating and corrosive gas. Toxic if swallowed, by skin contact or by inhalation.".

UN 1826 Insert "B20" in column 11 for the PG II entry.

UN 1827 Delete "B20" from column 11.

UN 1835 Add "SOLUTION" in column 2. Amend the first sentence in column 17 (PG II) to read "Miscible with water". Add a new entry for PG III as follows: "1835", "TETRAMETHYLAMMONIUM HYDROXYDE SOLUTION", "8", "-", "III", "223", "5 l", "P001, LP01", "-", "IBC03", "-", "T4", "T7", "TP2", "F-A, S-B", "Category A, "Separated from" acids", "see entry above".

UN 1843 Delete the liquid entry. In column 2 (solid entry), replace "ortho" by "o". Delete "T7", "T7" and "TP2" in columns 12, 13 and 14 (solid entry) respectively. In column 17 (solid entry) delete "see entry above" and insert the following text: "May support combustion and burn without oxygen. When involved in a fire, evolves toxic fumes. Forms extremely sensitive explosive compounds with lead, silver or other heavy metals and their compounds. Toxic if swallowed, by skin contact or by inhalation.".

UN 1848 Delete ", flammable" in column 17.

UN 1856 Delete "281" from column 6.

UN 1889 Add in column 16 ""Separated from" acids.".

UN 1931 In column 16, amend last sentence to read "Away from class 6.2 and acids.".

UN 1938 Delete the solid entry. In column 17 (liquid entry, PG II), delete the first and the second sentences. Add a new entry for PG III as follows: "1938", "BROMOACETIC ACID SOLUTION", "8", "-", "III", "223", "5 l", "P001, LP01", "-", "IBC03", "-", "-", "T7", "TP2", "F-A, S-B", "Category A, Clear of living quarters", "see entry above".

UN 1942 Add "class 4.1" between ""Separated from"" and "combustible material" in column 16.

UN 1950 Revise entry to read as follows:

"

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1950	AEROSOLS	2	● see SP63	-	63 190 277	see SP277	P003	PP17	-	-	-	-	-	F-D, S-U	*	-	1950

* For AEROSOLS with a maximum capacity of 1 *l*.:
CATEGORY A.
Segregation as for class 9 but "away from" sources of heat and "separated from" class 1 except division 1.4.

For AEROSOLS with a capacity above 1 *l*.:
CATEGORY B.
Segregation as for the appropriate division of class 2."

UN 1963 Add "TP34" in column 14.

UN 1966 Add "TP34" in column 14 and ""Separated from "chlorine." in column 16.

UN 1993 Insert "T4" in column 12 and amend "T4" to read "T7" in column 13 for the PG II entry, and amend "T2" to read "T4" for the PG III entry.

UN 2003 Delete.

UN 2014 Add "PP10" and delete "PP29" in column 9.

UN 2015 In column 12, insert "T9".

UN 2038 Delete the solid entry. In column 17 (liquid entry), replace the first sentence by "Immiscible with water.".

UN 2067 Add "class 4.1", between ""Separated from"" and "combustible material" in column 16

UN 2074 Delete the solution entry. In column 17 (solid entry), delete "see entry above" and insert the following text: "Crystals or powder. Soluble in water. May polymerise violently on melting. Toxic if swallowed, by skin contact or by inhalation.".

UN 2076 Delete the solid entry. In column 17 (liquid entry), delete "or solids" in the first sentence, delete "or soluble in" in the second sentence and replace the third sentence by "Melting point of meta-CRESOL: 12^{o}C".

UN 2077 Delete the liquid entry. In column 2 (solid entry), delete ", SOLID". Add "T1" and "TP33" in columns 13 and 14 (solid entry). In column 17 (solid entry), delete "see entry above" and insert the following text: "White crystals. Toxic if swallowed, by skin contact or by inhalation.".

UN 2079 Amend column 16 to read ""Separated from" acids" as last sentence. Add in column 17 "Reacts violently with acids.".

UN 2208 Insert "313" and "314" in column 6 and "PP85" in column 9, delete PP78 from column 9, amend "should" to read "shall" in column 16 (x2).

UN 2211 Amend "should" to read "shall" in column 16.

UN 2235 Delete the solid entry. In column 2 (liquid entry), delete "para-". In column 17 (liquid entry), amend the text to read: "Colourless liquid. Immiscible with water. Toxic if swallowed, by skin contact or by inhalation.".

UN 2236 Delete the solid entry. In column 17 (liquid entry), amend the text to read: "Colourless liquid with a pungent odour. Immiscible with water. Reacts with water, evolving carbon dioxide. Toxic if swallowed, by skin contact or by inhalation.".

UN 2239 Delete the liquid entry. In column 17 (solid entry), delete "see entry above" and insert the following text: "Crystalline solids. Some isomers may melt at low temperature: melting range between 0°C and 24°C. Toxic if swallowed, by skin contact or by inhalation.".

UN 2259 Amend column 16, last sentence to read ""Separated from" acids." Add in column 17 "Reacts violently with acids.".

UN 2261 Delete the liquid entry. Delete "T7" and "TP2" in columns 13 and 14 (solid entry) respectively. In column 17 (solid entry), delete "see entry above" and insert the following text: "Crystals or needles. Toxic if swallowed, by skin contact or by inhalation.".

UN 2291 Add "LP02" in column 8.

UN 2306 Delete the solid entry. In column 17 (liquid entry), delete "or low melting point (31°C to 32°C) solids" in the first sentence and amend the second sentence to read "Immiscible with water".

UN 2308 Delete the solid entry. In column 17 (liquid entry), delete "Colourless, crystalline solid, or" in the first sentence.

UN 2315 Delete the solid entry. In column 17 (liquid entry), amend the fifth sentence to read: "This entry also covers articles, such as transformers and condensers, containing free liquid polychlorinated biphenyls.".

UN 2401 Add in column 16 ""Separated from" acids." Add in column 17 "Reacts violently with acids.".

UN 2433 Delete the solid entry. In column 17 (liquid entry), delete the first and the second sentences. The (new) first sentence is amended to read "Immiscible with water.".

UN 2445 Add ", LIQUID" in column 2 and "320" in column 6. Delete "Liquid." in column 17.

UN 2446 Add ", SOLID" in column 2.

UN 2511 Delete " SOLUTION" in column 2 and insert "223" in column 6.
Delete the entry for "2-CHLOROPROPIONIC ACID, SOLID".
Delete in column 17 "Crystals or a" and "Dust and liquid".

UN 2513 In column 16, add ""Separated from" alkalis."

UN 2552 Add ", LIQUID" in column 2. In column 17, delete the first and the second sentences.

UN 2579 Add in column 16 "Separated from" acids." Add in column 17 "Reacts violently with acids.".

UN 2626 Replace "kg" with "l" in column 7.

UN 2662 Delete the solution entry. In column 17 (solid entry), delete "see entry above" and insert the following text: "White crystals. Soluble in water. Toxic if swallowed, by skin contact or by inhalation.".

UN 2669 Delete the solid entry. In column 17 (liquid entry, PG II), delete "White or pink crystals or" in the first sentence, delete the second and fourth sentences and delete "Liquids" at the beginning of the third sentence. Add a new entry for PG III as follows: "2669", "CHLOROCRESOLS SOLUTION", "6.1", "-", "III", "223", "5 l", "P001, LP01", "-", "IBC03", "-", "T4", "T7", "TP2", "F-A, S-A", "Category A, Keep as cool as reasonably practicable", "see entry above".

UN 2691 In column 16, add ""Separated from" alkalis and ammonia.".

UN 2698 Delete "940" from column 6.

UN 2730 Delete the solid entry. In column 17 (liquid entry), amend the text to read "Light reddish or amber liquid. Immiscible with water. Toxic if swallowed, by skin contact or by inhalation".

UN 2732 Delete the solid entry. In column 17 (liquid entry), amend the text to read "Colourless to pale yellow liquids. Melting point of 1-BROMO-3-NITROBENZENE: 17°C. Immiscible with water. Toxic if swallowed, by skin contact or by inhalation.".

UN 2753 Delete the solid entry. In column 17 (liquid entry), amend the text to read "Liquids with a strong odour. Immiscible with water. Toxic if swallowed, by skin contact or by inhalation.".

UN 2730 Amend "1ℓ" to read "5ℓ" in column 7.

UN 2794 Delete "III" in column 5 and amend column 7 to read "1ℓ".

UN 2795 Delete "III" in column 5.

UN 2800 Delete "III" in column 5. Delete "940" from column 6 and add "29". Amend column 7 to read "1ℓ".

UN 2813 For packing groups I, II and III, add "PP83" in column 9.

UN 2814 Delete "274" and add "318" in column 6.

UN 2834 Delete the solution entry. Delete ", SOLID" in column 2 (solid entry). In column 17 (solid entry), delete "see entry above" and insert the following text: "Colourless to yellow deliquescent crystals. Soluble in water. Mildly corrosive to most metals. Causes burns to skin, eyes and mucous membranes.".

UN 2880 Add "313, 314" in column 6 of the PG II entry. Replace "PP78" by "PP85" in column 9 of the PG II entry. Amend "should" to read "shall" in column 16 (x2) of the PG II entry. Add a new entry for PG III as follows: "2880", "CALCIUM

HYPOCHLORITE, HYDRATED or CALCIUM HYPOCHLORITE HYDRATED MIXTURE with not less than 5.5% but not more than 16% water", "5.1", "-", "III", "316", "5 kg", "P002", "PP85", "-", "-", "-", "-", "-", "-", "F-H, S-Q", "Category D. Cargo transport units shall be shaded from direct sunlight and stowed away from sources of heat. Packages in cargo transport units shall be stowed so as to allow for adequate air circulation throughout the cargo. "Separated from" ammonium compounds, acids, cyanides, hydrogen peroxides and liquid organic substances", "see entry above".

UN 2900 Delete "274" and add "318" in column 6.

UN 2921 Replace "S-C" by "S-G" in column 15.

UN 2949 Delete the solution entry. In column 17 (solid entry), delete "see entry above" and insert the following text: "Colourless needles or yellow flakes. Soluble in water with a foul odour. Melting point: 52ºC. Reacts with acids, evolving hydrogen sulphide, a toxic and flammable gas. Causes burns to skin, eyes and mucous membranes.".

UN 2908 In column 17, amend to read "See 1.1.3.1.1, and IAEA Transport Schedule 4.".

UN 2909 In column 17, amend to read "See 1.1.3.1.1, and IAEA Transport Schedule 3.".

UN 2910 In column 17, amend to read "See 1.1.3.1.1, and IAEA Transport Schedule 1.".

UN 2911 In column 17, amend to read "See 1.1.3.1.1, and IAEA Transport Schedule 2.".

UN 2912 In column 17, amend to read "See 1.1.3.1.1, and IAEA Transport Schedule 5.".

UN 2913 In column 17, amend to read "See 1.1.3.1.1, and IAEA Transport Schedule 8.".

UN 2915 In column 17, amend to read "See 1.1.3.1.1, and IAEA Transport Schedule 9.".

UN 2916 In column 17, amend to read "See 1.1.3.1.1, and IAEA Transport Schedule 10.".

UN 2917 In column 17, amend to read "See 1.1.3.1.1, and IAEA Transport Schedule 11.".

UN 2919 In column 17, amend to read "See 1.1.3.1.1, and IAEA Transport Schedule 14.".

UN 2937 Delete the solid entry. In column 17 (liquid entry), delete "or solid" in the first sentence.

UN 2977 In column 17, amend to read "See 1.1.3.1.1, and IAEA Transport Schedule 6, 7, 9, 10 or 11, according to type of package.".

UN 2978 In column 17, amend to read "See 1.1.3.1.1, and IAEA Transport Schedule 5, 6, 7, 9, 10 or 11, according to type of package.".

UN 2990 In column 6, add "956".

UN 3020 Amend "1ℓ" to read "500mℓ" in column 7 for the PG III entry.

UN 3049 Delete.

UN 3050 Delete.

UN 3052 Delete the solid entry. In column 17 (liquid entry), delete the first sentence.

UN 3065 In column 17 of the PG III entry, amend the last sentence to read "5. when carried on board ships, the containers should be stowed in open cargo spaces or in enclosed cargo spaces complying with the requirements for class 3 flammable liquids with a flashpoint of 23ºC c.c. or less in regulation II-2/19 of SOLAS 74, as amended.".

UN 3072 In column 6, add "956".

UN 3090 Add "957" in column 6.

UN 3091 Add "957" in column 6.

UN 3125 Replace "P001" with "P002" in column 8 for PG III entry.

UN 3149 Add "PP10" in column 9.

UN 3151 Amend the third sentence in column 17 to read: "This entry also covers articles, such as transformers and condensers, containing free liquid polyhalogenated biphenyls or polyhalogenated terphenyls.".

UN 3152 In column 6, replace "908" with "958". Amend the fourth sentence in column 17 to read: "This entry covers articles, such as rags, cotton waste, clothing, sawdust, containing polyhalogenated biphenyls or polyhalogenated terphenyls where no free visible liquid is present.".

UN 3172 Delete the solid entries (PG I, II and III). Replace "Category A" with "Category B" in column 16 of the PG I and II entries.

UN 3176 Delete "TP9" in column 14, twice.

UN 3182 Amend column 9 of the PG II entry to read "PP31 PP40".

UN 3203 Delete.

UN 3205 Replace "S-Q" by "S-J" in column 15.

UN 3206 Replace "S-Q" by "S-J" in column 15.

UN 3207 Delete.

UN 3209 Amend column 9 of the PG II entry, to read "PP31 PP40".

UN 3212 Amend "should" to read "shall" in column 16.

UN 3231, UN 3234, UN 3237, UN 3240 For "2.4.2.3.2.7" read "2.4.2.3.2.3" in column 17.

UN 3242 Delete the "●" in column 4.

UN 3268 For "AIR-BAG" read "AIR BAG" in column 2.

UN 3272 In column 10 of the PG III entry, insert "IBC03".

UN 3276 Amend column 2 to read as follows: "NITRILES, TOXIC, LIQUID, N.O.S.".

UN 3278 Delete the solid entries (PG I, II and III). For the liquid entry, amend the name in column 2 to read as follows: "ORGANOPHOSPHORUS COMPOUND, TOXIC, LIQUID, N.O.S.".

UN 3280 Delete the solid entries (PG I, II and III). Amend column 2 to read as follows: "ORGANOARSENIC COMPOUND, LIQUID, N.O.S.". In column 17 (liquid entry), delete the first sentence.

UN 3281 Delete the solid entries (PG I, II and III). Amend column 2 to read as follows: "METAL CARBONYLS, LIQUID, N.O.S.". In column 17 (liquid entry), delete the second sentence and delete "dust" in the fourth sentence.

UN 3282 Delete the solid entries (PG I, II and III). Amend column 2 to read as follows: "ORGANOMETALLIC COMPOUND, TOXIC, LIQUID, N.O.S.".

UN 3283 Amend the name in column 2 to read as follows: "SELENIUM COMPOUND, SOLID, N.O.S.".

UN 3285 For "gm" read "g" in column 7.

UN 3292 In column 6, delete "936".

UN 3314 Replace "NONE" with "5 kg" in column 7.

UN 3315 Delete the solid entry. Delete ", LIQUID" in column 2 (liquid entry).

UN 3321 In column 17, amend to read "See 1.1.3.1.1, and IAEA Transport Schedule 6.".

UN 3322 In column 17, amend to read "See 1.1.3.1.1, and IAEA Transport Schedule 7.".

UN 3323 In column 17, amend to read "See 1.1.3.1.1, and IAEA Transport Schedule 12.".

UN 3324 In column 17, amend to read "See 1.1.3.1.1, and IAEA Transport Schedule 6 and 13.".

UN 3325 In column 17, amend to read "See 1.1.3.1.1, and IAEA Transport Schedule 7 and 13.".

UN 3326 In column 17, amend to read "See 1.1.3.1.1, and IAEA Transport Schedule 8 and 13.".

UN 3327 In column 17, amend to read "See 1.1.3.1.1, and IAEA Transport Schedule 9 and 13.".

UN 3328 In column 17, amend to read "See 1.1.3.1.1, and IAEA Transport Schedule 10 and 13.".

UN 3329 In column 17, amend to read "See 1.1.3.1.1, and IAEA Transport Schedule 11 and 13.".

UN 3330 In column 17, amend to read "See 1.1.3.1.1, and IAEA Transport Schedule 12 and 13.".

UN 3331 In column 17, amend to read "See 1.1.3.1.1, and IAEA Transport Schedule 14 and 13.".

UN 3332 In column 17, amend to read "See 1.1.3.1.1, and IAEA Transport Schedule 9.".

UN 3333 In column 17, amend to read "See 1.1.3.1.1, and IAEA Transport Schedule 9 and 13.".

UN 3326
UN 3328 } In column 2, insert comma after "RADIOACTIVE MATERIAL".

UN 3332-UN 3333 Delete underlining from "S-S" in column 16.

UN 3359 Amend existing text in column 17 to read:

"A 'FUMIGATED UNIT' is a closed cargo transport unit loaded with cargoes under fumigation. The fumigant gases used are either poisonous or asphyxiant. The gases are usually evolved from solid or liquid preparations distributed within the unit. Fumigants shall not be applied to the contents of a cargo transport unit once it has been loaded aboard the ship. A cargo transport unit that has been fumigated is not subject to the provisions of this Code if it has been completely ventilated either by opening the doors of the unit or by mechanical ventilation to ensure that no harmful concentration of gas remains (see also special provision 910).".

UN 3360 In column 17, amend "COTTON, DRY" to read "cotton, dry" and add after "360 kg/m3" the following: ", flax, dry having a density not less than 400 kg/m^3 and sisal, dry having a density not less than 620 kg/m^3".

UN 3363 In column 17, amend the text to read: "Types of articles transported under this entry contain only limited quantities of dangerous goods.".

UN 3364 Delete full stop in column 2.

UN 3372 Delete.

UN 3373 In the name in column 2, insert "or CLINICAL" before "SPECIMENS" and add "319" in column 6.

UN 3375 Delete "306" in column 6. Add "class 4.1" between ""Separated from"" and "combustible material" in column 16. Delete the last sentence in column 17.

UN 3376 Amend to read: "4 – NITROPHENYLHYDRAZINE, with not less than 30% water, by mass" in column 2.

Rationalized approach for the assignment of tank instructions for solids:

Assign TP9 to all solid n.o.s. entries of classes 4.2, 6.1 and 8, packing group I to which a T code has been assigned.

AMENDMENTS TO THE DANGEROUS GOODS LIST

CLASS 1

UN number(s) concerned	Amendments
UN 0004, 0222, 0402	Replace in column (16) ""Away from" EXPLOSIVE, BLASTING, TYPE C, UN 0083 which contains chlorates or perchlorates" by ""Away from" explosives containing chlorates or perchlorates"
UN 0083	Replace in column (16) "When containing chlorates or perchlorates stow "away from" explosives containing ammonium nitrate or other ammonium salts" by ""Away from" ammonium compounds and explosives containing ammonium compounds or salts"
UN 0081, 0082, 0331, 0332 and 0241	Add in column (16) "When containing ammonium compounds, "away from" chlorates or perchlorates and explosives containing chlorates and perchlorates"
UN 0395, 0396, 0397, 0398, 0399, 0400, 0449, 0450 (Class 1, J)	Replace "When under deck segregate from other explosives as for class 3" by ""Separated from" division 1.4 and "separated longitudinally by an intervening complete compartment or hold from" division 1.1, 1.2, 1.3, 1.5 and 1.6 except from explosives of compatibility group J"

CLASS 2

UN number(s) concerned	Amendments
UN 3138, 2034, 2600	Add in column (16) ""Separated from" chlorine"
UN 1003	Delete ""separated from" acetylene"
UN 2418	Add in column (16) "Separated from" acids

CLASS 3

UN number(s) concerned	Amendments
UN 1235, 1297	Replace in column (16) ""Away from" mercury and its compounds" by ""Separated from" mercury and mercury compounds"
UN 2347, 2378	Replace in column (16) ""Away from" acids" by ""Separated from" acids"
UN 3022	Replace in column (16) ""Away from" class 8" by ""Away from" acids and alkalis"
UN 1865	Include in column (16) "Segregation as for class 5.1 but "away from" classes 4.1, 5.1 and 7"

CLASS 4.1

UN number(s) concerned	Amendments
UN 1309	Replace in column (16) ""Separated from" iron oxide" by ""Separated from" class 5.1, acids, alkalis and iron oxide"
UN 1869	Add in column (16) ""Separated from" class 5.1, acids, alkalis and iron oxide"
UN 2907	Add in column (16) ""Away from" class 3 and heavy metals and their salts". To add in column (17) "May form extremely sensitive compounds with heavy metals or their salts"
UN 1324	Replace in column (16) ""Separated from" class 3" by ""Away from" class 3"
UN 3221, 3222, 3223, 3224, 3225, 3226, 3227, 3228, 3229, 3230, 3231, 3232, 3233, 3234, 3235, 3236, 3237, 3238, 3239, 3240	Replace in column (16) ""Separated from" class 8" by ""Separated from" acids and alkalis"
UN 3242	Replace in column (16) ""Separated from" class 5.1 and class 8" by ""Separated from" class 5.1, acids and alkalis"
UN 1326, 1346, 1358, 1868,	Add in column (16) ""Separated from" class 5.1"
UN 1326, 1338, 1339, 1340, 1341, 1343, 1350, 1358, 1868, 1869, 2448	Delete in column (17) "most" and "such as chlorates, nitrates, perchlorates and permanganates" to read: "Forms explosive mixtures with oxidizing substances"
UN 1352, 2878	Add in column (16) ""Separated from" class 5.1" Add in column (17) "Forms explosive mixtures with oxidizing substances"

CLASS 4.2

UN number(s) concerned	Amendments
UN 1374	Delete in column (16) ""Separated from" class 6.2"
UN 3254	Replace in column (16) ""Separated from" peroxides, halogens, nitric oxides and carbon tetrachloride" by ""Separated from" carbon tetrachloride"
UN 1382, 1385	Add in column (16) ""Separated from" acids"
UN 1556, 1557	Add in column (16) "For arsenic sulphides, "separated from" acids" Add in column (17) "In contact with acids, arsenic sulphide evolves hydrogen sulphide, a toxic and flammable gas"
UN 2008, 2545, 2546	Delete in column (17) "most" and "such as chlorates, nitrates, perchlorates and permanganates" to read: "Forms explosive mixtures with oxidizing substances"
UN 3189	Add in column (17) "Forms explosive mixtures with oxidizing substances."
UN 3052, 3461	Add in column (16) ""Separated from" UN 2716"

CLASS 4.3

UN number(s) concerned	Amendments
UN 1395, 1398	Add ""Away from" liquid halogenated hydrocarbons" in column (16)
UN 1396, 1418	Add in column (17) "Reacts with liquid halogenated hydrocarbons"
UN 1360, 1389, 1390, 1391, 1392, 1393, 1394, 1397, 1400, 1401, 1402, 1403, 1404, 1405, 1407, 1409, 1410, 1413, 1414, 1415, 1418, 1419, 1420, 1421, 1422, 1423, 1426, 1427, 1428, 1432, 1433, 1714, 1870, 2010, 2011, 2012, 2013, 2257, 2623, 2805, 2835, 2844, 2950, 2968, 3078	Add in column (16) ""Separated from" acids"
UN 1395, 1396, 1398, 1408, 1436	Add in column (16) ""Separated from" acids and alkalis"

CLASS 5.1

UN number(s) concerned	Amendments
UN 1445, 1447, 1450, 1452, 1453, 1455, 1458, 1459, 1461, 1462, 1470, 1473, 1475, 1481, 1484, 1485, 1489, 1494, 1495, 1496, 1502, 1506, 1508, 1513, 2469, 2573, 2719, 2721, 2723	Replace in column (16) ""Separated from" powdered metals, ammonium compounds and cyanides" by ""Separated from" ammonium compounds and cyanides"
UN 2427, 2428, 2429, 3210, 3211, 3213	Replace in column (16) ""Separated from" powdered metals, ammonium compounds and cyanides" by ""Separated from" ammonium compounds, cyanides and sulphur"
UN 1442	Replace in column (16) ""Separated from" powdered metals, cyanides and hydrogen peroxide" by ""Separated from" cyanides and hydrogen peroxide"
UN 1492, 1505, 3215	Add in column (16) ""Separated from" ammonium compounds and cyanides" to add in column (17) "Reacts fiercely with cyanides when heated or by friction. May form explosive mixture with powdered metals or ammonium compounds"
UN 3216	Add in column (16) ""Separated from" ammonium compounds, cyanides and sulphur"
UN 1471, 1748, 2208, 2741, 2880, 3212	Amend special segregation provisions in column (16) related to powdered metals, ammonium compounds, cyanides and hydrogen peroxide to read ""Separated from" ammonium compounds, acids, cyanides, hydrogen peroxides and liquid organic substances" To replace in column (17) of UN 2741 "reacts vigorously with sulphuric acid" by "Reacts with acids, evolving chlorine, an irritating, corrosive and toxic gas"
UN 1448, 1456, 1482, 1490, 1503, 1515	Replace in column (16) ""Separated from" powdered metals, ammonium compounds, cyanides, hydrogen peroxide, peroxides and superoxides" by ""Separated from" ammonium compounds, cyanides and peroxides"

UN number(s) concerned	Amendments
UN 3214	Replace in column (16) ""Separated from" powdered metals, ammonium compounds, cyanides, hydrogen peroxide, peroxides and superoxides" by ""Separated from" ammonium compounds, cyanides and peroxides and sulphur"
UN 1449, 1457, 1472, 1476, 1483, 1491, 1504, 1509, 1516, 2466, 2547	Replace in column (16) ""Separated from" permanganates and powdered metals" by ""Separated from" permanganates, acids and class 4.1"
UN 2014, 2015, 2984, 3149	Amend in column (16) the segregation provisions related to class 4.1, powdered metals and permanganates to read: ""Separated from" permanganates and class 4.1"
UN 2626	Replace in column (16) ""Separated from" powdered metals, ammonium compounds and cyanides" by ""Separated from" ammonium compounds and cyanides"
UN 1479, 3085, 3087, 3098, 3099, 3139	Replace in column (16) ""Separated from" ammonium compounds, cyanides and hydrogen peroxide" by ""Separated from" ammonium compounds, cyanides and peroxides"
UN 2627, 3219	Delete "away from" powdered metals. To replace in column (16) of UN 3219 ""Separated from" ammonium compounds and cyanides" by ""Separated from" ammonium compounds, cyanides and sulphur"
UN 1477, 3218	Delete "away from" powdered metals Add in column (16) of UN 1477: ""Separated from" ammonium compounds and cyanides" Add in column (16) of UN 3218: ""Separated from" ammonium compounds, cyanides and sulphur"
UN 1510	Replace in column (16) ""Separated from" powdered metals and class 4.1" by ""Separated from" class 4.1"
UN 3247	Delete in column (16) ""Separated from" powdered metals"
UN 1439	Add in column (16) ""Separated from" strong acids"
UN 2495	Add in column (16) ""Separated from" acids"

CLASS 5.2

UN number(s) concerned	Amendments
UN 3101, 3102, 3103, 3104, 3105, 3106, 3107, 3108, 3109, 3110, 3111, 3112, 3113, 3114, 3115, 3116, 3117, 3118, 3119, 3120	Add in column (16) ""Separated from" acids and alkalis"

CLASS 6.1

UN number(s) concerned	Amendments
UN 1541	Replace in column (16) ""Away from" class 8" by ""Separated from" acids and alkalis". Add in column (17) "acids and" before "alkalis"
UN 2521	Replace in column (16) ""Away from" class 8" by ""Away from" acids and alkalis"
UN 2785	Replace in column (16) ""Away from" class 8" by ""Away from" acids and alkalis"

UN number(s) concerned	Amendments
UN 1843	Amend column (16) to read "Category B. "Away from" heavy metals and their salts. "Separated from" classes 3 and 4.1. "Separated longitudinally by an intervening complete compartment or hold from" class 1."
UN 1599, 1687	Replace in column (16) ""Away from" lead and its compounds" by ""Away from" heavy metals and their salts"
UN 2716	Replace in column (16) ""Separated from" class 8 and from mercury salts" by ""Separated from" acids, alkalis, mercury salts, UN 3052 and UN 3461
UN 2272, 2273, 2382, 2650 and 2738	Add in column 16 ""Separated from" class 5.1"
UN 1546	Add in column 16 ""Separated from" alkalis"
UN 1547, 1565, 1572, 1575, 1587, 1620, 1626, 1636, 1642, 1653, 1679, 1684, 1688, 1690, 1713, 1812, 2019, 2224, 2272, 2273, 2316, 2317, 2337, 2470, 2474, 2480, 2481, 2505, 2655, 2668, 2674, 2853, 2854, 2855, 2856, 2874, 3275, 3276	Replace in column (16) ""Away from" acids" by ""Separated from" acids"
UN 2433, 2859, 2861	Include in column (16) "Segregation as for class 5.1 but "away from" classes 4.1, 5.1 and 7"
UN 1694	Add in column 16 ""Separated from" acids"

CLASS 8

UN number(s) concerned	Amendments
UN 2705	Replace in column (16) ""Away from" class 8" by ""Away from" acids and alkalis" Replace in column (17) "May react in contact with a strongly alkaline substance" by "May react in contact with acids and alkalis"
UN 1719, 2033, 2677, 2678, 2679, 2681, 2682, 2797	Add in column 16 ""Away from" ammonium salts"
UN 1727, 1740, 1756, 1811, 1835, 1847, 2079, 2259, 2439, 2683, 2693, 2734, 2735, 2818, 2949, 3259, 3262, 3263, 3266, 3267, 3320	Replace in column (16) ""Away from" acids" by ""Separated from" acids"
UN 1732, 1755, 1806, 1908	Include in column (16) "Segregation as for class 5.1 but "away from" classes 4.1, 5.1 and 7"

Amend the columns 13 and 14 for all solid entries in the dangerous goods list as follows:

Class	Sub.	PG	Tank Instruction 13	Tank prov. 14	Apply to
4.1		I	-	-	All UN Nos. in this group
		II	T3	TP33	1309, 1323, 1325 (replace "TP1" with "TP33"), 1326, 1339, 1341, 1343, 1345, 1352, 1358, 1437, 1868, 1871, 2925, 2926, 2989, 3089, 3175, 3178, 3179, 3180, 3181, 3182, 3242
		III	T1	TP33	1309,1312, 1313, 1314, 1318, 1325 (replace "TP1" with "TP33"), 1328, 1330, 1332, 1334, 1338, 1346, 1350, 1869, 2001, 2213, 2538, 2687, 2714, 2715, 2717, 2878, 2925, 2926, 2989, 3089, 3097, 3178, 3179, 3180, 3181, 3182
4.2		I	T21	TP7 TP33	1383, 1854, 2005, 2008, 2870, 2881, 3200, 3254
		II	T3	TP33	1361, 1369, 1374, 1378, 1382, 1384, 1385, 1431, 1923, 1929, 2004, 2008, 2318, 2545, 2546, 2881, 2940, 3088, 3189, 3190, 3191, 3192, 3205, 3206, 3313, 3341, 3342
		III	T1	TP33	1361, 1362, 1373, 1376, 1932, 2008, 2210, 2545, 2546, 2881, 3088, 3174, 3189, 3190, 3191, 3192, 3205, 3206, 3313, 3341, 3342
4.3	6.1	I	-	-	All UN Nos. in this group
		I	T9	TP7 TP33	1428, 2257
		II	T3	TP33	1340, 1390, 1393, 1394, 1395, 1396, 1400, 1401, 1402, 1405, 1409, 1417, 1418, 1436, 2624, 2805, 2813, 2830, 2835, 3078, 3134, 3135, 3170, 3208, 3209
		III	T1	TP33	1396, 1398, 1403, 1405, 1408, 1418, 1435, 1436, 2813, 2844, 2950, 2968, 3134, 3135, 3170, 3208, 3209
5.1		I	-	-	All UN Nos. in this group
		II	T3	TP33	1439, 1442, 1445, 1446, 1447, 1448, 1449, 1450, 1452, 1453, 1455, 1456, 1457, 1458, 1459, 1461, 1462, 1463, 1469, 1470, 1471, 1472, 1473, 1475, 1476, 1477, 1479, 1481, 1482, 1483, 1484, 1485, 1487, 1488, 1489, 1490, 1493, 1494, 1495, 1496, 1502, 1503, 1506, 1508, 1509, 1513, 1514, 1515, 1516, 2464, 2465, 2468, 2573, 2627, 2719, 2721, 2723, 2741, 3085, 3087, 3212, 3247
		III	T1	TP33	1438, 1444, 1451, 1454, 1458, 1459, 1465, 1466, 1467, 1474, 1477, 1479, 1481, 1482, 1483, 1486, 1492, 1498, 1499, 1500, 1505, 1507, 1511, 1872, 1942, 2067, 2469, 2720, 2722, 2724, 2725, 2726, 2728, 3085, 3087, 3215
5.2			T23	TP33	3110, 3120

Class	Sub.	PG	Tank Instruction 13	Tank prov. 14	Apply to
6.1		I	T6	TP33	1544, 1557, 1565, 1570, 1575, 1588, 1601, 1626, 1655, 1680, 1689, 1692, 1698, 1713, 1889, 2025, 2026, 2316, 2471, 2570, 2588, 2628, 2629, 2630, 2642, 2757, 2759, 2761, 2763, 2771, 2775, 2777, 2779, 2781, 2783, 2786, 2811, 2928, 2930, 3027, 3048, 3086, 3124, 3125, 3143, 3146, 3283, 3284, 3285, 3288, 3290, 3345, 3349
		II	T3	TP33	1544, 1546, 1554, 1555, 1557, 1558, 1559, 1561, 1562, 1564, 1566, 1567, 1569, 1572, 1573, 1574, 1578, 1585, 1586, 1587, 1588, 1596, 1598, 1601, 1606, 1607, 1608, 1617, 1618, 1620, 1621, 1622, 1623, 1624, 1625, 1627, 1629, 1630, 1631, 1634, 1636, 1637, 1638, 1639, 1640, 1641, 1642, 1643, 1644, 1645, 1646, 1650, 1651, 1652, 1653, 1655, 1657, 1659, 1661, 1671, 1674, 1677, 1678, 1679, 1683, 1684, 1685, 1688, 1691, 1697, 1707, 1712, 1751, 1843, 1885, 1894, 1895, 2018, 2025, 2026, 2027, 2250, 2261, 2567, 2570, 2587, 2588, 2645, 2647, 2649, 2657, 2671, 2673, 2727, 2757, 2759, 2761, 2763, 2771, 2775, 2777, 2779, 2781, 2783, 2786, 2811, 2859, 2861, 2863, 2864, 2928, 2930, 2931, 3027, 3086, 3124, 3125, 3143, 3146, 3155, 3243, 3249, 3283, 3284, 3285, 3288, 3290, 3345, 3349
		III	T1	TP33	1544, 1548, 1549, 1550, 1551, 1557, 1564, 1566, 1579, 1588, 1601, 1616, 1655, 1663, 1673, 1690, 1709, 1812, 1884, 2020, 2025, 2026, 2074, 2233, 2237, 2239, 2291, 2446, 2473, 2505, 2512, 2516, 2570, 2588, 2651, 2655, 2659, 2660, 2662, 2674, 2713, 2716, 2729, 2757, 2759, 2761, 2763, 2771, 2775, 2777, 2779, 2781, 2783, 2786, 2811, 2853, 2854, 2855, 2856, 2862, 2871, 2875, 2876, 3027, 3143, 3146, 3249, 3283, 3284, 3285, 3288, 3345, 3349
8		I	T6	TP33	1759, 1905, 2430, 2921, 2923, 3084, 3095, 3096, 3147, 3259, 3260, 3261, 3262, 3263
		II	T3	TP33	1725, 1726, 1727, 1740, 1756, 1759, 1770, 1794, 1806, 1807, 1811, 1813, 1823, 1825, 1839, 1847, 1849, 1939, 2033, 2430, 2439, 2506, 2509, 2583, 2670, 2678, 2680, 2682, 2691, 2869, 2921, 2923, 3084, 3095, 3096, 3147, 3244, 3259, 3260, 3261, 3262, 3263
		III	T1	TP33	1740, 1759, 1773, 1907, 2214, 2215, 2280, 2331, 2430, 2440, 2475, 2503, 2507, 2508, 2578, 2579, 2585, 2698, 2802, 2803, 2823, 2834, 2865, 2869, 2905, 2923, 2967, 3147, 3253, 3259, 3260, 3261, 3262, 3263
9		II	T3	TP33	2212, 2969, 3152
		III	T1	TP33	1841, 1931, 2211, 2216, 2590, 3077

Add the following new entries:

							Packing		IBC		Tank instructions						
UN No.	**Name and description**	**Class or division**	**Subsi-diary risks**	**UN packing group**	**Special provi-sions**	**Limited quanti-ties**	**Instruc-tions**	**Provi-sions**	**Instruc-tion**	**Provi-sions**	**IMO**	**UN**	**Provi-sions**	**EmS**	**Stowage and segregation**	**Properties and observations**	**UN No.**
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
3377	SODIUM PERBORATE MONOHYDRATE	5.1	-	III	-	5 kg	P002 LP02	-	IBC08	B3	-	T1 BK2	TP33	F-A, S-Q	Category A. Keep as dry as reasonably practicable. "Separated from" permanganates. “Away from” any sources of heat.	White crystals or powder. Partially soluble in water. Mixtures with combustible material are readily ignited and may burn fiercely. Risk of decomposition when exposed to continuous heat (exothermic decomposition $\geq$ 60°C). When involved in a fire or exposed to high temperatures, it may decompose yielding oxygen and steam. Harmful if swallowed.	3377
3378	SODIUM CARBONATE PEROXYHYDRATE	5.1	-	II	-	1 kg	P002	-	IBC08	B2, B4	-	T3 BK2	TP33	F-A, S-Q	Category A. Keep as dry as reasonably practicable. "Separated from" permanganates. “Away from” any sources of heat.	White crystals or powder. Soluble in water. Mixtures with combustible material are readily ignited. Decomposes in contact with water and acids, forming hydrogen peroxide. Risk of decomposition when exposed to continuous heat (exothermic decomposition $\geq$ 60°C). When involved in a fire or exposed to high temperatures, it may decompose yielding oxygen and steam. Irritating to eyes, skin and mucous membranes. Harmful if swallowed.	3378

							Packing		IBC		Tank instructions						
UN No.	**Name and description**	**Class or division**	**Subsi-diary risks**	**UN packing group**	**Special provi-sions**	**Limited quanti-ties**	**Instruc-tions**	**Provi-sions**	**Instruc-tion**	**Provi-sions**	**IMO**	**UN**	**Provi-sions**	**EmS**	**Stowage and segregation**	**Properties and observations**	**UN No.**
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
3378	SODIUM CARBONATE PEROXYHYDRATE	5.1	-	III	-	5 kg	P002 LP02	-	IBC08	B3, B13	-	T1 BK2	TP33	S-Q	Category A. Keep as dry as reasonably practicable. "Separated from" permanganates. “Away from” any sources of heat.	See entry above	
3379	DESENSITIZED EXPLOSIVE, LIQUID, N.O.S.	3	-	I	274 311	None	P099	-	-	-	-	-	-	S-Y	Category D. "Away from" heavy metals and their salts	Desensitized explosive. Explosive and sensitive to friction in the dry state. May form extremely sensitive compounds with heavy metals and their salts.	
3380	DESENSITIZED EXPLOSIVE, SOLID, N.O.S.	4.1	-	I	274 311	None	P099	-	-	-	-	-	-	S-J	Category D. "Away from" class 3 and heavy metals and their salts.	Desensitized explosive. Explosive and sensitive to friction in the dry state. May form extremely sensitive compounds with heavy metals and their salts.	
3381	TOXIC BY INHALATION LIQUID, N.O.S. with an inhalation toxicity lower than or equal to 200 ml/m^3 and saturated vapour concentration greater than or equal to 500 LC_{50}	6.1	●	I	274	None	P601	-	-	-	-	T22	TP2 TP13 TP9	F-A, S-A	Category D. Clear of living quarters.	A variety of toxic liquids which present a significant toxic inhalation hazard. Highly toxic by inhalation. Toxic if swallowed or by skin contact.	3381
3382	TOXIC BY INHALATION LIQUID, N.O.S. with an inhalation toxicity lower than or equal to 1000 ml/m^3 and saturated vapour concentration greater than or equal to 10 LC_{50}	6.1	●	I	274	None	P602	-	-	-	-	T20	TP2 TP13 TP9	F-A, S-A	Category D. Clear of living quarters.	A variety of toxic liquids which present a significant toxic inhalation hazard. Toxic by inhalation, if swallowed or by skin contact.	3382

							Packing		IBC		Tank instructions						
UN No.	**Name and description**	**Class or division**	**Subsi-diary risks**	**UN packing group**	**Special provi-sions**	**Limited quanti-ties**	**Instruc-tions**	**Provi-sions**	**Instruc-tion**	**Provi-sions**	**IMO**	**UN**	**Provi-sions**	**EmS**	**Stowage and segregation**	**Properties and observations**	**UN No.**
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
3383	TOXIC BY INHALATION LIQUID, FLAMMABLE, N.O.S. with an inhalation toxicity lower than or equal to 200 ml/m^3 and saturated vapour concentration greater than or equal to 500 LC_{50}	6.1	3 ●	I	274	None	P601	-	-	-	-	T22	TP2 TP13 TP9	F-E, S-D	Category D. Clear of living quarters.	A variety of toxic liquids which present a significant toxic inhalation hazard as well as being flammable. Highly toxic by inhalation. Toxic if swallowed or by skin contact.	3383
3384	TOXIC BY INHALATION LIQUID, FLAMMABLE, N.O.S. with an inhalation toxicity lower than or equal to 1000 ml/m^3 and saturated vapour concentration greater than or equal to 10 LC_{50}	6.1	3 ●	I	274	None	P602	-	-	-	-	T20	TP2 TP13 TP9	F-E, S-D	Category D. Clear of living quarters.	A variety of toxic liquids which present a significant toxic inhalation hazard as well as being flammable. Toxic by inhalation, if swallowed or by skin contact.	3384
3385	TOXIC BY INHALATION LIQUID, WATER-REACTIVE, N.O.S. with an inhalation toxicity lower than or equal to 200 ml/m^3 and saturated vapour concentration greater than or equal to 500 LC_{50}	6.1	4.3 ●	I	274	None	P601	-	-	-	-	T22	TP2 TP13 TP9	F-G, S-N	Category D. Clear of living quarters.	A variety of toxic liquids which present a significant toxic inhalation hazard as well as being water-reactive. Highly toxic by inhalation. Toxic if swallowed or by skin contact.	3385
3386	TOXIC BY INHALATION LIQUID, WATER-REACTIVE, N.O.S. with an inhalation toxicity lower than or equal to 1000 ml/m^3 and saturated vapour concentration greater than or equal to 10 LC_{50}	6.1	4.3 ●	I	274	None	P602	-	-	-	-	T20	TP2 TP13 TP9	F-G, S-N	Category D. Clear of living quarters.	A variety of toxic liquids which present a significant toxic inhalation hazard as well as being water-reactive. Toxic by inhalation, if swallowed or by skin contact.	3386

							Packing		IBC		Tank instructions						
UN No.	**Name and description**	**Class or division**	**Subsidiary risks**	**UN packing group**	**Special provisions**	**Limited quantities**	**Instructions**	**Provisions**	**Instruction**	**Provisions**	**IMO**	**UN**	**Provisions**	**EmS**	**Stowage and segregation**	**Properties and observations**	**UN No.**
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
3387	TOXIC BY INHALATION LIQUID, OXIDIZING, N.O.S. with an inhalation toxicity lower than or equal to 200 ml/m^3 and saturated vapour concentration greater than or equal to 500 LC_{50}	6.1	5.1 ●	I	274	None	P601	-	-	-	-	T22	TP2 TP13 TP9	F-A, S-Q	Category D. Clear of living quarters.	A variety of toxic liquids which present a significant toxic inhalation hazard as well as being an oxidizer. Highly toxic by inhalation. Toxic if swallowed or by skin contact.	3387
3388	TOXIC BY INHALATION LIQUID, OXIDIZING, N.O.S. with an inhalation toxicity lower than or equal to 1000 ml/m^3 and saturated vapour concentration greater than or equal to 10 LC_{50}	6.1	5.1 ●	I	274	None	P602	-	-	-	-	T20	TP2 TP13 TP9	F-A, S-Q	Category D. Clear of living quarters.	A variety of toxic liquids which present a significant toxic inhalation hazard as well as being an oxidizer. Toxic by inhalation, if swallowed or by skin contact.	3388
3389	TOXIC BY INHALATION LIQUID, CORROSIVE, N.O.S. with an inhalation toxicity lower than or equal to 200 ml/m^3 and saturated vapour concentration greater than or equal to 500 LC_{50}	6.1	8 ●	I	274	None	P601	-	-	-	-	T22	TP2 TP13 TP9	F-A, S-B	Category D. Clear of living quarters.	A variety of toxic liquids which present a significant toxic inhalation hazard as well as being corrosive. Highly toxic by inhalation. Toxic if swallowed or by skin contact.	3389
3390	TOXIC BY INHALATION LIQUID, CORROSIVE, N.O.S. with an inhalation toxicity lower than or equal to 1000 ml/m^3 and saturated vapour concentration greater than or equal to 10 LC_{50}	6.1	8 ●	I	274	None	P602	-	-	-	-	T20	TP2 TP13 TP9	F-A, S-B	Category D. Clear of living quarters.	A variety of toxic liquids which present a significant toxic inhalation hazard as well as being corrosive. Toxic by inhalation, if swallowed or by skin contact.	3390

							Packing		IBC		Tank instructions						
UN No.	Name and description	Class or division	Subsi-diary risks	UN packing group	Special provi-sions	Limited quanti-ties	Instruc-tions	Provi-sions	Instruc-tion	Provi-sions	IMO	UN	Provi-sions	EmS	Stowage and segregation	Properties and observations	UN No.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
3391	ORGANOMETALLIC SUBSTANCE, SOLID, PYROPHORIC	4.2	●	I	274	None	P404	PP86	-	-	-	T21	TP7 TP33	F-G, S-M	Category D.	Liable to ignite spontaneously in air. If shaken, may produce sparks.	3391
3392	ORGANOMETALLIC SUBSTANCE, LIQUID, PYROPHORIC	4.2	●	I	274	None	P400	PP86	-	-	-	T21	TP2 TP7	F-G, S-M	Category D. Prohibited on any ship carrying class 1 with the exceptions listed in 7.2.7.1.3.2.	Highly flammable liquids. Liable to ignite spontaneously in air. In contact with air, evolves irritating and slightly toxic fumes.	3392
3393	ORGANOMETALLIC SUBSTANCE, SOLID, PYROPHORIC, WATER-REACTIVE	4.2	4.3 ●	I	274	None	P404	PP86	-	-	-	T21	TP7 TP33	F-G, S-M	Category D. "Separated from" acids	Liable to ignite spontaneously in air. If shaken, may produce sparks. Reacts violently with moisture, water and acids evolving flammable gas.	3393
3394	ORGANOMETALLIC SUBSTANCE, LIQUID, PYROPHORIC, WATER-REACTIVE	4.2	4.3 ●	I	274	None	P400	PP86	-	-	-	T21	TP2 TP7	F-G, S-M	Category D. Prohibited on any ship carrying class 1 with the exceptions listed in 7.2.7.1.3.2. "Separated from" acids.	Highly flammable liquids. Liable to ignite spontaneously in air. In contact with air, evolves irritating and slightly toxic fumes. Reacts violently with moisture, water and acids evolving flammable gas.	3394
3395	ORGANOMETALLIC SUBSTANCE, SOLID, WATER-REACTIVE	4.3	●	I	274	None	P403	-	-	-	-	T9	TP7 TP33	F-G, S-N	Category E. Clear of living quarters. "Separated from" acids.	Reacts violently with moisture, water and acids evolving flammable gas.	3395
3395	ORGANOMETALLIC SUBSTANCE, SOLID, WATER-REACTIVE	4.3	●	II	274	500 g	P410	-	IBC04	-	-	T3	TP33	F-G, S-N	Category E. Clear of living quarters. "Separated from" acids	See entry above.	3395
3395	ORGANOMETALLIC SUBSTANCE, SOLID, WATER-REACTIVE	4.3	●	III	223 274	1 kg	P410	-	IBC06	-	-	T1	TP33	F-G, S-N	Category E. Clear of living quarters. "Separated from" acids	See entry above.	3395
3396	ORGANOMETALLIC SUBSTANCE, SOLID, WATER-REACTIVE, FLAMMABLE	4.3	4.1 ●	I	274	None	P403	-	-	-	-	T9	TP7 TP33	F-G, S-N	Category E. Clear of living quarters. “Separated from" acids.	Flammable solids. Reacts violently with moisture, water and acids evolving flammable gas.	3396

							Packing		IBC		Tank instructions						
UN No.	Name and description	Class or division	Subsi-diary risks	UN packing group	Special provi-sions	Limited quanti-ties	Instruc-tions	Provi-sions	Instruc-tion	Provi-sions	IMO	UN	Provi-sions	EmS	Stowage and segregation	Properties and observations	UN No.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
3396	ORGANOMETALLIC SUBSTANCE, SOLID, WATER-REACTIVE, FLAMMABLE	4.3	4.1 ●	II	274	500 g	P410	-	IBC04	-	-	T3	TP33	F-G, S-N	Category E. Clear of living quarters. "Separated from" acids.	See entry above.	3396
3396	ORGANOMETALLIC SUBSTANCE, SOLID, WATER-REACTIVE, FLAMMABLE	4.3	4.1 ●	III	223 274	1 kg	P410	-	IBC06	-	-	T1	TP33	F-G, S-N	Category E. Clear of living quarters. "Separated from" acids.	See entry above.	3396
3397	ORGANOMETALLIC SUBSTANCE, SOLID WATER-REACTIVE, SELF-HEATING	4.3	4.2 ●	I	274	None	P403	-	-	-	-	T9	TP7 TP33	F-G, S-N	Category E. Clear of living quarters. "Separated from" acids.	Liable to self-heating or spontaneous combustion. Reacts violently with moisture, water and acids evolving flammable gas.	3397
3397	ORGANOMETALLIC SUBSTANCE, SOLID WATER-REACTIVE, SELF-HEATING	4.3	4.2 ●	II	274	500 g	P410	-	IBC04	-	-	T3	TP33	F-G, S-N	Category E. Clear of living quarters. "Separated from" acids.	See entry above.	3397
3397	ORGANOMETALLIC SUBSTANCE, SOLID WATER-REACTIVE, SELF-HEATING	4.3	4.2 ●	III	223 274	1 kg	P410	-	IBC06	-	-	T1	TP33	F-G, S-N	Category E. Clear of living quarters. "Separated from" acids.	See entry above.	3397
3398	ORGANOMETALLIC SUBSTANCE, LIQUID, WATER-REACTIVE	4.3	●	I	274	None	P402	-	-	-	-	T13	TP2 TP7	F-G, S-N	Category E. Clear of living quarters. "Separated from" acids.	Reacts violently with moisture, water and acids evolving flammable gas.	3398
3398	ORGANOMETALLIC SUBSTANCE, LIQUID, WATER-REACTIVE	4.3	●	II	274	500 ml	P001	-	IBC01	-	-	T7	TP2 TP7	F-G, S-N	Category E. Clear of living quarters. "Separated from" acids.	See entry above.	3398
3398	ORGANOMETALLIC SUBSTANCE, LIQUID, WATER-REACTIVE	4.3	●	III	223 274	1l	P001	-	IBC02	-	-	T7	TP2 TP7	F-G, S-N	Category E. Clear of living quarters. "Separated from" acids.	See entry above.	3398
3399	ORGANOMETALLIC SUBSTANCE, LIQUID, WATER-REACTIVE, FLAMMABLE	4.3	3 ●	I	274	None	P402	-	-	-	-	T13	TP2 TP7	F-G, S-N	Category E. Clear of living quarters. "Separated from" acids.	Flammable liquids. Reacts violently with moisture, water and acids evolving flammable gas.	3399
3399	ORGANOMETALLIC SUBSTANCE, LIQUID, WATER-REACTIVE, FLAMMABLE	4.3	3 ●	II	274	500 ml	P001	-	IBC01	-	-	T7	TP2 TP7	F-G, S-N	Category E. Clear of living quarters. "Separated from" acids.	See entry above.	3399

							Packing		IBC		Tank instructions						
UN No.	**Name and description**	**Class or division**	**Subsi-diary risks**	**UN packing group**	**Special provi-sions**	**Limited quanti-ties**	**Instruc-tions**	**Provi-sions**	**Instruc-tion**	**Provi-sions**	**IMO**	**UN**	**Provi-sions**	**EmS**	**Stowage and segregation**	**Properties and observations**	**UN No.**
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
3399	ORGANOMETALLIC SUBSTANCE, LIQUID, WATER-REACTIVE, FLAMMABLE	4.3	3 ●	III	223 274	1 l	P001	-	IBC02	-	-	T7	TP2 TP7	F-G, S-N	Category E. Clear of living quarters. "Separated from" acids.	See entry above.	3399
3400	ORGANOMETALLIC SUBSTANCE, SOLID, SELF-HEATING	4.2	●	II	274	500 g	P410	-	IBC06	-	-	T3	TP33	F-A, S-J	Category C	Liable to self-heating or spontaneous combustion	3400
3400	ORGANOMETALLIC SUBSTANCE, SOLID, SELF-HEATING	4.2	●	III	223 274	1 kg	P002	-	IBC08	-	-	T1	TP33	F-A, S-J	Category C	See entry above.	3400

							Packing		IBC		Tank instructions						
UN No.	**Name and description**	**Class or division**	**Subsi-diary risks**	**UN packing group**	**Special provi-sions**	**Limited quanti-ties**	**Instruc-tions**	**Provi-sions**	**Instruc-tion**	**Provi-sions**	**IMO**	**UN**	**Provi-sions**	**EmS**	**Stowage and segregation**	**Properties and observations**	**UN No.**
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
3401	ALKALI METAL AMALGAM, SOLID	4.3	●	I	182	None	P403	PP31	-	-	-	T9	TP7 TP33	F-G, S-N	Category D. “Separated from” acids.	Silvery solid, consisting of metal alloyed with mercury. Reacts with moisture, water or acids, evolving hydrogen, a flammable gas. When heated, evolves toxic vapours.	3401
3402	ALKALINE EARTH METAL AMALGAM, SOLID	4.3	●	I	183	None	P403	PP31	-	-	-	T9	TP7 TP33	F-G, S-N	Category D. “Separated from” acids.	Consists of metal alloyed with mercury. Contains 2% to 10% alkaline earth metals and may contain up to 98% mercury. Reacts with moisture, water or acids, evolving hydrogen, a flammable gas. When heated, evolves toxic vapours.	3402
3403	POTASSIUM METAL ALLOYS, SOLID	4.3	-	I	-	None	P403	PP31	-	-	-	T9	TP7 TP33	F-G, S-L	Category D. “Separated from” acids.	Soft, silvery metal. Floats on water. Reacts violently with moisture, water or acids, evolving hydrogen, which may be ignited by the heat of the reaction. Highly reactive, sometimes with explosive effect.	3403
3404	POTASSIUM SODIUM ALLOYS, SOLID	4.3	-	I	-	None	P403	PP31	-	-	-	T9	TP7 TP33	F-G, S-L	Category D. “Separated from” acids.	Soft, silvery metal. Floats on water. Reacts violently with moisture, water or acids, evolving hydrogen, which may be ignited by the heat of the reaction. Highly reactive, sometimes with explosive effect.	3404

							Packing		IBC		Tank instructions						
UN No.	Name and description	Class or division	Subsi-diary risks	UN packing group	Special provi-sions	Limited quanti-ties	Instruc-tions	Provi-sions	Instruc-tion	Provi-sions	IMO	UN	Provi-sions	EmS	Stowage and segregation	Properties and observations	UN No.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
3405	BARIUM CHLORATE SOLUTION	5.1	6.1	II	-	1 l	P504	-	IBC02	-	-	T4	TP1	F-H, S-Q	Category A. “Separated from” ammonium compounds, cyanides and sulphur.	Colourless aqueous solutions. Reacts vigorously with sulphuric acid. Reacts fiercely with cyanides when heated. May form explosive mixtures with combustible material, powdered metals or ammonium compounds. These mixtures are liable to ignite. When involved in a fire, may cause an explosion. Toxic if swallowed, by skin contact or by inhalation. Leakage and subsequent evaporation of the water from the solutions may present increased dangers as follows : 1. in contact with combustible material (particularly fibrous material such as jute, cotton or sisal) or sulphur, danger of spontaneous combustion, 2. in contact with ammonium compounds, powdered metals or oils, danger of explosion.	3405
3405	BARIUM CHLORATE SOLUTION	5.1	6.1	III	223	5 l	P001	-	IBC02	-	-	T4	TP1	F-H, S-Q	Category A. "Separated from" ammonium compounds, cyanides and sulphur.	See entry above	3405

							Packing		IBC		Tank instructions						
UN No.	Name and description	Class or division	Subsi-diary risks	UN packing group	Special provi-sions	Limited quanti-ties	Instruc-tions	Provi-sions	Instruc-tion	Provi-sions	IMO	UN	Provi-sions	EmS	Stowage and segregation	Properties and observations	UN No.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
3406	BARIUM PERCHLORATE SOLUTION	5.1	6.1	II	-	1l	P504	-	IBC02	-	-	T4	TP1	F-H, S-Q	Category A. "Separated from" ammonium compounds, cyanides and sulphur.	Reacts vigorously with sulphuric acid. Reacts fiercely with cyanides when heated. May form explosive mixtures with combustible material, powdered metals or ammonium compounds. These mixtures are liable to ignite. When involved in a fire, may cause an explosion. Toxic if swallowed, by skin contact or by inhalation. Leakage and subsequent evaporation of the water from the solutions may present increased dangers as follows : .1 in contact with combustible material (particularly fibrous material such as jute, cotton or sisal) or sulphur, danger of spontaneous combustion, .2 in contact with ammonium compounds, powdered metals or oils, danger of explosion.	3406
3406	BARIUM PERCHLORATE SOLUTION	5.1	6.1	III	223	5 l	P001	-	IBC02	-	-	T4	TP1	F-H, S-Q	Category A. "Separated from" ammonium compounds, cyanides and sulphur.	See entry above	3406

							Packing		IBC		Tank instructions						
UN No.	Name and description	Class or division	Subsi-diary risks	UN packing group	Special provi-sions	Limited quanti-ties	Instruc-tions	Provi-sions	Instruc-tion	Provi-sions	IMO	UN	Provi-sions	EmS	Stowage and segregation	Properties and observations	UN No.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
3407	CHLORATE AND MAGNESIUM CHLORIDE MIXTURE SOLUTION	5.1	●	II	944	1 l	P504	-	IBC02	-	-	T4	TP1	F-H, S-Q	Category A. "Separated from" ammonium compounds, cyanides and sulphur.	Reacts vigorously with sulphuric acid. Reacts fiercely with cyanides when heated. May form explosive mixtures with combustible material, powdered metals or ammonium compounds. These mixtures are liable to ignite. When involved in a fire, may cause an explosion. Leakage and subsequent evaporation of the water from the solutions may present increased dangers as follows : .1 in contact with combustible material (particularly fibrous material such as jute, cotton or sisal) or sulphur, danger of spontaneous combustion, .2 in contact with ammonium compounds, powdered metals or oils, danger of explosion.	3407
3407	CHLORATE AND MAGNESIUM CHLORIDE MIXTURE SOLUTION	5.1	●	III	223 944	5 l	P504	-	IBC02	-	-	T4	TP1	F-H, S-Q	Category A. "Separated from" ammonium compounds, cyanides and sulphur.	See entry above	3407
3408	LEAD PERCHLORATE SOLUTION	5.1	6.1 P	II	-	1 l	P504	-	IBC02	-	-	T4	TP1	F-H, S-Q	Category A. "Separated from" ammonium compounds and cyanides	Reacts vigorously with sulphuric acid. Reacts fiercely with cyanides when heated. May form explosive mixtures with combustible material, powdered metals or ammonium compounds. These mixtures are liable to ignite. When involved in a fire, may cause an explosion.	3408
3408	LEAD PERCHLORATE SOLUTION	5.1	6.1 P	III	223	5 l	P001	-	IBC02	-	-	T4	TP1	F-H, S-Q	Category A. "Separated from" ammonium compounds and cyanides	See entry above.	3408
3409	CHLORONITROBENZENES, LIQUID	6.1	-	II	279	100 ml	P001	-	IBC02	-	-	T7	TP2	F-A, S-A	Category A	Yellow liquid. Toxic if swallowed, by skin contact or by inhalation.	3409

							Packing		IBC		Tank instructions						
UN No.	Name and description	Class or division	Subsi-diary risks	UN packing group	Special provi-sions	Limited quanti-ties	Instruc-tions	Provi-sions	Instruc-tion	Provi-sions	IMO	UN	Provi-sions	EmS	Stowage and segregation	Properties and observations	UN No.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
3410	4-CHLORO-o-TOLUIDINE HYDROCHLORIDE SOLUTION	6.1	-	III	223	5 l	P001	-	IBC03	-	-	T4	TP1	F-A, S-A	Category A	Toxic if swallowed, by skin contact or by inhalation.	3410
3411	beta-NAPHTHYLAMINE SOLUTION	6.1	-	II	-	100 ml	P001	-	IBC02	-	-	T7	TP2	F-A, S-A	Category A	Toxic if swallowed, by skin contact or by inhalation.	3411
3411	beta-NAPHTHYLAMINE SOLUTION	6.1	-	III	223	5 l	P001	-	IBC02	-	-	T7	TP2	F-A, S-A	Category A	See entry above.	3411
3413	POTASSIUM CYANIDE SOLUTION	6.1	P	I	-	None	P001	PP31	-	-	T10	T14	TP2 TP13	F-A, S-A	Category B. “Separated from” acids.	Reacts with acids or acid fumes, evolving hydrogen cyanide, a highly toxic and flammable gas. Highly toxic if swallowed or by skin contact.	3413
3413	POTASSIUM CYANIDE SOLUTION	6.1	P	II	-	100 ml	P001	PP31	IBC02	-	T10	T11	TP2 TP13 TP27	F-A, S-A	Category B. “Separated from” acids.	See entry above.	3413
3413	POTASSIUM CYANIDE SOLUTION	6.1	P	III	223	5 l	P001 LP01	PP31	IBC03	-	-	T7	TP2 TP13 TP28	F-A, S-A	Category A. “Separated from” acids.	See entry above.	3413
3414	SODIUM CYANIDE SOLUTION	6.1	P	I	-	None	P001	PP31	-	-	T10	T14	TP2 TP13	F-A, S-A	Category B. “Separated from” acids	Reacts with acids or acid fumes, evolving hydrogen cyanide, a highly toxic and flammable gas. Highly toxic if swallowed or by skin contact.	3414
3414	SODIUM CYANIDE SOLUTION	6.1	P	II	-	100 ml	P001	PP31	IBC02	-	T10	T11	TP2 TP13 TP27	F-A, S-A	Category B. “Separated from” acids.	See entry above.	3414
3414	SODIUM CYANIDE SOLUTION	6.1	P	III	223	5 l	P001 LP01	PP31	IBC03	-	-	T7	TP2 TP13 TP28	F-A, S-A	Category A. “Separated from” acids.	See entry above.	3414
3415	SODIUM FLUORIDE SOLUTION	6.1	-	III	223	5 l	P001 LP01	-	IBC03		-	T4	TP1	F-A, S-A	Category A. “Separated from” acids.	Colourless liquid. React with acids, evolving hydrogen fluoride, a toxic, irritating and corrosive gas, apparent as white fumes. Toxic if swallowed, by skin contact or by inhalation.	3415
3416	CHLOROACETOPHENONE, LIQUID	6.1	-	II	-	None	P001	-	IBC02	-	-	T7	TP2 TP13	F-A, S-A	Category D. Keep as cool as reasonable practicable. Clear of living quarters.	Liquid evolving irritating vapour (“Tear Gas”). Toxic if swallowed, by skin contact or by inhalation.	3416
3417	XYLYL BROMIDE, SOLID	6.1	-	II	-	None	P002	-	IBC08	B2 B4	-	T3	TP33	F-A, S-G	Category D. Clear of living quarters.	Crystals or powder, evolving irritating vapour (“Tear Gas”). Toxic if swallowed, by skin contact or by inhalation.	3417

							Packing		IBC		Tank instructions						
UN No.	Name and description	Class or division	Subsi-diary risks	UN packing group	Special provi-sions	Limited quanti-ties	Instruc-tions	Provi-sions	Instruc-tion	Provi-sions	IMO	UN	Provi-sions	EmS	Stowage and segregation	Properties and observations	UN No.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
3418	2,4-TOLUYLENEDIAMINE SOLUTION	6.1	-	III	223	5 l	P001 LP01	-	IBC03	-	-	T4	TP1	F-A, S-A	Category A	Toxic if swallowed, by skin contact or by inhalation.	3418
3419	BORON TRIFLUORIDE ACETIC ACID COMPLEX, SOLID	8	-	II	-	1 kg	P002	-	IBC08	B2 B4	-	T3	TP33	F-A, S-B	Category A	White crystalline solid. Melting point: 23^{0}C. Highly corrosive to most metals. Causes burns to skin, eyes and mucous membranes.	3419
3420	BORON TRIFLUORIDE PROPIONIC ACID COMPLEX, SOLID	8	-	II	-	1 kg	P002	-	IBC08	B2 B4	-	T3	TP33	F-A, S-B	Category A	White crystalline solid. Melting point: 28^{0}C. Highly corrosive to most metals. Causes burns to skin, eyes and mucous membranes.	3420
3421	POTASSIUM HYDROGEN DIFLUORIDE SOLUTION	8	6.1	II	-	1 l	P001	-	IBC02	-	T4	T7	TP2	F-A, S-B	Category A. Shade from radiant heat. Clear of living quarters. “Separated from” acids	Decomposed by heat or acids, evolving hydrogen fluoride, a toxic, extremely irritating and corrosive gas apparent as white fumes. In the presence of moisture, highly corrosive to glass, other siliceous materials and most metals. Toxic if swallowed, by skin or by inhalation. Causes burns to skin, eyes and mucous membranes.	3421
3421	POTASSIUM HYDROGEN DIFLUORIDE SOLUTION	8	6.1	III	223	5 l	P001	-	IBC03	-	-	T4	TP1	F-A, S-B	Category A. Shade from radiant heat. Clear of living quarters. “Separated from” acids	See entry above.	3421
3422	POTASSIUM FLUORIDE SOLUTION	6.1	-	III	223	5 l	P001 LP01	-	IBC03	-	-	T4	TP1	F-A, S-A	Category A. “Separated from” acids	Decomposed by acid, evolving hydrogen fluoride, an irritating and corrosive gas. Toxic if swallowed, by skin contact or by inhalation.	3422
3423	TETRAMETHYLAMMONIUM HYDROXIDE, SOLID	8	-	II	-	1 kg	P002	-	IBC08	B2 B4	-	T3	TP33	F-A, S-B	Category A. “Separated from “ acids.	Very soluble in water. Reacts violently with acids.	3423

							Packing		IBC		Tank instructions						
UN No.	Name and description	Class or division	Subsi-diary risks	UN packing group	Special provi-sions	Limited quanti-ties	Instruc-tions	Provi-sions	Instruc-tion	Provi-sions	IMO	UN	Provi-sions	EmS	Stowage and segregation	Properties and observations	UN No.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
3424	AMMONIUM DINITRO-o-CRESOLATE SOLUTION	6.1	P	II	-	100 ml	P001	-	IBC02	-	T4	T7	TP2	F-A, S-A	Category B. "Away from" heavy metals, and their salts. "Separated from" classes 3 and 4.1. "Separated longitudinally by an intervening complete compartment or hold from" class 1.	The commercial product is a 50% suspension in water. May support combustion and burn without oxygen. When involved in a fire, evolves toxic fumes. Forms extremely sensitive explosive compounds with lead, silver or other heavy metals and their compounds. Toxic if swallowed, by skin contact or by inhalation	3424
3424	AMMONIUM DINITRO-o-CRESOLATE SOLUTION	6.1	P	III	223	5 l	P001	-	IBC02	-	T4	T7	TP2	F-A, S-A	Category A. "Away from" heavy metals, especially lead, and their salts. "Separated from" classes 3 and 4.1. "Separated longitudinally by an intervening complete compartment or hold from" class 1.	See entry above.	
3425	BROMOACETIC ACID, SOLID	8	-	II	-	1 kg	P002	-	IBC08	B2 B4	-	T3	TP33	F-A, S-B	Category A	Colourless, deliquescent crystals. Melting point: 51^{0}C. Corrosive to most metals. Harmful if swallowed. Causes burns to eyes and skin.	3425
3426	ACRYLAMIDE SOLUTION	6.1	-	III	223	5 l	P001 LP01	-	IBC03	-	-	T4	TP1	F-A, S-A	Category A. Keep as cool as reasonably practicable.	Toxic if swallowed, by skin contact or by inhalation	3426
3427	CHLOROBENZYL CHLORIDES, SOLID	6.1	P	III	-	5 kg	P002 LP02	-	IBC08	B3	-	T1	TP33	F-A, S-A	Category A	Colourless crystalline solid. Melting point: 29^{0}C. Immiscible with or insoluble in water. Toxic if swallowed, by skin contact or by inhalation.	3427

							Packing		IBC		Tank instructions						
UN No.	Name and description	Class or division	Subsi-diary risks	UN packing group	Special provi-sions	Limited quanti-ties	Instruc-tions	Provi-sions	Instruc-tion	Provi-sions	IMO	UN	Provi-sions	EmS	Stowage and segregation	Properties and observations	UN No.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
3428	3-CHLORO-4-METHYLPHENYL ISOCYANATE, SOLID	6.1	-	II	-	500 g	P002	-	IBC08	B2 B4	-	T3	TP33	F-A, S-A	Category B. Clear of living quarters.	Colourless solid with a pungent odour. Melting point: 23^{0}C. Insoluble in water. Reacts with water, evolving carbon dioxide. Toxic if swallowed, by skin contact or by inhalation.	3428
3429	CHLOROTOLUIDINES, LIQUID	6.1	-	III	-	5 l	P001 LP01	-	IBC03	-	T3	T4	TP1	F-A, S-A	Category A	Brown liquids. Toxic if swallowed, by skin contact or by inhalation.	3429
3430	XYLENOLS, LIQUID	6.1	-	II	-	100 ml	P001	-	IBC02	-	T4	T7	TP2	F-A, S-A	Category A	The commercial products are liquids with a pungent tar odour. Toxic if swallowed, by skin contact or by inhalation.	3430
3431	NITROBENZOTRIFLUORIDES, SOLID	6.1	P	II	-	500 g	P002	-	IBC08	B2 B4	-	T3	TP33	F-A, S-A	Category A, Clear of living quarters.	Low melting point (31^{0}C to 32^{0}C) solids with an aromatic odour. Insoluble in water. Toxic if swallowed, by skin contact or by inhalation.	3431
3432	POLYCHLORINATED BIPHENYLS, SOLID	9	PP	II	305 958	500 g	P906	-	IBC08	-	-	T3	TP33	F-A, S-A	Category A. "Separated from" foodstuffs.	Solid with perceptible odours. Insoluble in water. Harmful by ingestion or by skin contact. If spilled can be a persistent hazard to the environment. This entry covers articles, such as rags, cotton waste, clothing, sawdust, containing polychlorinated biphenyls where no free visible liquid is present.	3432
3433	LITHIUM ALKYLS, SOLID	4.2	4.3	I	320	None	P400	-	-	-	-	T21	TP7 TP33	F-G, S-M	Category D	Ignite on exposure to air or carbon dioxide. Reacts violently in contact with water, acids, halogens, alcohols and amines, evolving flammable gas.	3433
3434	NITROCRESOLS, LIQUID	6.1	-	III	-	5 l	P001 LP01	-	IBC03	-	-	T4	TP1	F-A, S-A	Category A	Slightly miscible in water. Toxic if swallowed, by skin contact or by inhalation.	3434
3435	HYDROQUINONE SOLUTION	6.1	-	III	223	5 l	P001 LP01	-	IBC03	-	-	T4	TP1	F-A, S-A	Category A	Miscible with water. Toxic if swallowed, by skin contact or by inhalation.	3435

							Packing		IBC		Tank instructions						
UN No.	Name and description	Class or division	Subsi-diary risks	UN packing group	Special provi-sions	Limited quanti-ties	Instruc-tions	Provi-sions	Instruc-tion	Provi-sions	IMO	UN	Provi-sions	EmS	Stowage and segregation	Properties and observations	UN No.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
3436	HEXAFLUOROACETONE HYDRATE, SOLID	6.1	-	II	-	500 g	P002	-	IBC08	B2 B4	-	T3	TP33	F-A, S-A	Category B. Clear of living quarters.	This entry covers solid hydrate and hexafluoroacetone. Melting point of the pure substance: 23^{0}C. Toxic if swallowed, by skin contact or by inhalation.	3436
3437	CHLOROCRESOLS, SOLID	6.1	-	II	-	500 g	P002	-	IBC08	B2 B4	-	T3	TP33	F-A, S-A	Category A. Keep as cool as reasonably practicable.	White or pink crystals with a phenol-like odour. Melting point: 45^{0}C to 68^{0}C. Slightly soluble in water. Decomposes when heated, evolving extremely toxic fumes (phosgene). Toxic if swallowed, by skin contact or by inhalation.	3437
3438	alpha-METHYLBENZYL ALCOHOL, SOLID	6.1	-	III	-	5 kg	P002 LP02	-	IBC08	B3	-	T1	TP33	F-A, S-A	Category A	Slightly soluble in water. Melting point: 21^{0}C (pure substance). Toxic if swallowed, by skin contact or by inhalation.	3438
3439	NITRILES, TOXIC, SOLID, N.O.S.	6.1	●	I	274	None	P002	-	IBC07	B1	-	T6	TP9 TP33	F-A, S-A	Category B. "Separated from" acids.	Solids, evolving toxic vapours. Reacts with acids or acid fumes, evolving hydrogen cyanide, a highly toxic and flammable gas. Soluble in water. Toxic if swallowed, by skin contact or by inhalation.	3439
3439	NITRILES, TOXIC, SOLID, N.O.S.	6.1	●	II	274	500 g	P002	-	IBC08	B2 B4	-	T3	TP33	F-A, S-A	Category B. "Separated from" acids.	See entry above.	3439
3439	NITRILES, TOXIC, SOLID, N.O.S.	6.1	●	III	223 274 944	5 kg	P002 LP02	-	IBC08	B3	-	T1	TP33	F-A, S-A	Category A. "Separated from" acids.	See entry above.	3439
3440	SELENIUM COMPOUND, LIQUID, N.O.S.	6.1	●	I	-	None	P001	-	-	-	-	T14	TP2 TP9 TP27	F-A, S-A	Category B.	Toxic if swallowed, by skin contact or by inhalation.	3440
3440	SELENIUM COMPOUND, LIQUID, N.O.S.	6.1	●	II	-	100 ml	P001	-	IBC02	-	-	T11	TP2 TP27	F-A, S-A	Category B.	See entry above.	3440
3440	SELENIUM COMPOUND, LIQUID, N.O.S.	6.1	●	III	223 944	5 l	P001	-	IBC03	-	-	T7	TP1 TP28	F-A, S-A	Category A.	See entry above.	3440

							Packing		IBC		Tank instructions						
UN No.	Name and description	Class or division	Subsi-diary risks	UN packing group	Special provi-sions	Limited quanti-ties	Instruc-tions	Provi-sions	Instruc-tion	Provi-sions	IMO	UN	Provi-sions	EmS	Stowage and segregation	Properties and observations	UN No.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
3441	CHLORODINITROBENZENES, SOLID	6.1	P	II	279	500 g	P002	-	IBC08	B2 B4	-	T3	TP33	F-A, S-A	Category A. "Separated from" class 3	Crystals. Melting point: 27°C to 53°C. May explode if involved in a fire. Toxic if swallowed, by skin contact or by inhalation.	3441
3442	DICHLOROANILINES, SOLID	6.1	P	II	279	500 g	P002	-	IBC08	B2 B4	-	T3	TP33	F-A, S-A	Category A. Clear of living quarters	Solid with a penetrating odour. Liquid mixtures of various isomers of dichloroanilines, some of which in the pure state may be solid, with a melting point varying from 24°C to 72°C. Toxic if swallowed, by skin contact or by inhalation.	3442
3443	DINITROBENZENES, SOLID	6.1	-	II	-	500 g	P002	-	IBC08	B2 B4	-	T3	TP33	F-A, S-A	Category A. "Separated from" class 3	May explode if involved in a fire. Toxic if swallowed, by skin contact or by inhalation.	3443
3444	NICOTINE HYDROCHLORIDE, SOLID	6.1	-	II	43	500 g	P002	-	IBC08	B2 B4	-	T3	TP33	F-A, S-A	Category A	Deliquescent crystals or solids or pastes. Soluble in water. Toxic if swallowed, by skin contact or by inhalation.	3444
3445	NICOTINE SULPHATE, SOLID	6.1	-	II		500 g	P002	-	IBC08	B2 B4	-	T3	TP33	F-A, S-A	Category A	Solid or paste. Soluble in water. Toxic if swallowed, by skin contact or by inhalation.	3445
3446	NITROTOLUENES, SOLID	6.1	-	II		500 g	P002	-	IBC08	B2 B4	-	T3	TP33	F-A, S-A	Category A	Yellow solids. Melting point: para-NITROTOLUENE: 52°C to 54°C. Toxic if swallowed, by skin contact or by inhalation.	3446
3447	NITROXYLENES, SOLID	6.1	-	II		500 g	P002	-	IBC08	B2 B4	-	T3	TP33	F-A, S-A	Category A	Yellow solids. Melting points: 4-NITRO-2-XYLENE: 29°C to 31°C, 5-NITRO-3-XYLENE: 72°C to 74°C. Insoluble in water. Toxic if swallowed, by skin contact or by inhalation.	3447
3448	TEAR GAS SUBSTANCE, SOLID, N.O.S.	6.1	●	I	4	None	P002	PP31	-	-	-	T6	TP9 TP33	F-A, S-A	Category D. Clear of living quarters	"Tear gas substance" is a generic term for substances which, in minute quantities dispersed in air, cause extreme eye irritation and profuse tears. Toxic if swallowed, by skin contact or by inhalation.	3448

							Packing		IBC		Tank instructions						
UN No.	Name and description	Class or division	Subsi-diary risks	UN packing group	Special provi-sions	Limited quanti-ties	Instruc-tions	Provi-sions	Instruc-tion	Provi-sions	IMO	UN	Provi-sions	EmS	Stowage and segregation	Properties and observations	UN No.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
3448	TEAR GAS SUBSTANCE, SOLID, N.O.S.	6.1	●	II	4	None	P002	PP31	IBC08	B2 B4	-	T3	TP33	F-A, S-A	Category D. Clear of living quarters	See entry above	3448
3449	BROMOBENZYL CYANIDES, SOLID	6.1	●	I	8	None	P002	PP31	-	-	-	T6	TP33	F-A, S-A	Category D. Keep as cool as reasonable practicable. Clear of living quarters. “Separated from” acids.	Volatile, yellow crystals evolving irritating vapours (“Tear Gas”). Melting point: meta-BROMOBENZYL CYANIDE 25^{0}C. Highly toxic if swallowed, by skin contact or by inhalation.	3449
3450	DIPHENYLCHLOROARSINE, SOLID	6.1	PP	I		None	P002	PP31	IBC07	B1	-	T6	TP33	F-A, S-A	Category D. Clear of living quarters.	When pure, volatile, colourless crystals evolving an irritating vapour (“Tear Gas”). Melting point: 41^{0}C. Highly toxic if swallowed, by skin contact or by inhalation.	3450
3451	TOLUIDINES, SOLID	6.1	-	II	9	500 g	P002	-	IBC08	B2 B4	-	T3	TP33	F-A, S-A	Category A	para-TOLUIDINE is solid in pure form, with a melting point of approximately 45^{0}C. Toxic if swallowed, by skin contact or by inhalation.	3451
3452	XYLIDINES, SOLID	6.1	-	II		500 g	P002	-	IBC08	B2 B4	-	T3	TP33	F-A, S-A	Category A	3,4-dimethylaniline is a solid, which has a melting point of 47^{0}C. Toxic if swallowed, by skin contact or by dust inhalation.	3452
3453	PHOSPHORIC ACID, SOLID	8	-	II		5 kg	P002 LP02	-	IBC08	B3	-	T1	TP33	F-A, S-B	Category A	Very deliquescent, crystalline solid. Melting point: 42^{0}C. Soluble in water. Mildly corrosive to most metals.	3453
3454	DINITROTOLUENES, SOLID	6.1	-	II		500 g	P002	-	IBC08	B2 B4	-	T3	TP33	F-A, S-A	Category A	Yellow crystals or flakes, insoluble in water. Toxic if swallowed, by skin contact or by inhalation.	3454

							Packing		IBC		Tank instructions						
UN No.	Name and description	Class or division	Subsi-diary risks	UN packing group	Special provi-sions	Limited quanti-ties	Instruc-tions	Provi-sions	Instruc-tion	Provi-sions	IMO	UN	Provi-sions	EmS	Stowage and segregation	Properties and observations	UN No.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
3455	CRESOLS, SOLID	6.1	8	II		500 g	P002	-	IBC08	B2 B4	-	T3	TP33	F-A, S-B	Category B	Light yellow solids. Soluble in water. Melting points of CRESOLS: ortho-CRESOL: 30^{0}C, para-CRESOL: 35^{0}C. Toxic if swallowed, by skin contact or by inhalation. Cause burns to skin, eyes and mucous membranes.	3455
3456	NITROSYLSULPHURIC ACID, SOLID	8	-	II		1 kg	P002	-	IBC08	B2 B4	-	T3	TP33	F-A, S-B	Category D. Clear of living quarters,. Segregation as for class 5.1, but “separated from” classes 4.1, 5.1 and 7.	Crystalline solid. Oxidant which may cause fire with organic materials (such as wood, straw, etc.). When involved in a fire, evolves toxic gases. In presence of moisture, highly corrosive to most metals. Causes burns to skin, eyes and mucous membranes.	3456
3457	CHLORONITROTOLUENES, SOLID	6.1	P	II		5 kg	P002 LP02	-	IBC08	B3	-	T1	TP33	F-A, S-A	Category A	Melting range 20^{0}C to 40^{0}C. Insoluble in water. Oxidizing substance which may explode or burn fiercely when in contact with organic materials. Toxic if swallowed, by skin contact or by inhalation.	3457
3458	NITROANISOLES, SOLID	6.1	-	II	9	5 kg	P002 LP02	-	IBC08	B3	-	T1	TP33	F-A, S-A	Category A	Light reddish or amber crystals. Melting points: 38^{0}C to 54^{0}C. Insoluble in water. Toxic if swallowed, by skin contact or by inhalation.	3458
3459	NITROBROMOBENZENES, SOLID	6.1	-	II		5 kg	P002 LP02	-	IBC08	B3	-	T1	TP33	F-A, S-A	Category A	Colourless to pale yellow crystals which may liquefy under transport conditions. Melting points: 1-BROMO-2-NITROBENZENE: 43^{0}C. 1-BROMO-4-NITROBENZENE: 127^{0}C. Insoluble in water. Toxic if swallowed, by skin contact or by inhalation.	3459
3460	N-ETHYLBENZYLTOLUIDINES, SOLID	6.1	-	II		5 kg	P002 LP02	-	IBC08	B3	-	T1	TP33	F-A, S-A	Category A	Solids which may liquefy under transport conditions. Strong odour. Insoluble in water. Toxic if swallowed, by skin contact or by inhalation.	3460

							Packing		IBC		Tank instructions						
UN No.	Name and description	Class or division	Subsi-diary risks	UN packing group	Special provi-sions	Limited quanti-ties	Instruc-tions	Provi-sions	Instruc-tion	Provi-sions	IMO	UN	Provi-sions	EmS	Stowage and segregation	Properties and observations	UN No.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
3461	ALUMINIUM ALKYL HALIDES, SOLID	4.2	4.3	I	0	None	P404	-	-	-	-	T21	TP7 TP33	F-G, S-M	Category D. “Separated from” UN 2716.	Ignite on exposure to air or carbon dioxide. Reacts violently in contact with water, acids, halogens, alcohols and amines, evolving flammable gas.	3461
3462	TOXINS EXTRACTED FROM LIVING SOURCES, SOLID, N.O.S.	6.1	●	I	0 4	None	P002	-	IBC07	B1	-	T6	TP9 TP33	F-A, S-A	Category B	Toxins from plant, animal or bacterial sources which contain infectious substances or toxins that are contained in infectious substances should be classified in class 6.2. Toxic if swallowed, by skin contact or by inhalation.	3462
3462	TOXINS EXTRACTED FROM LIVING SOURCES, SOLID, N.O.S.	6.1	●	II	0 4	500 g	P002	-	IBC08	B2 B4	-	T3	TP33	F-A, S-A	Category B	See entry above	3462
3462	TOXINS EXTRACTED FROM LIVING SOURCES, SOLID, N.O.S.	6.1	●	II	0 3 4 4	5 kg	P002	-	IBC08	B3	-	T1	TP33	F-A, S-A	Category A	See entry above	3462
3464	ORGANOPHOSPHORUS COMPOUND, TOXIC, SOLID, N.O.S.	6.1	●	I	3 4	None	P002	-	IBC07	B1	-	T6	TP9 TP33	F-A, S-A	Category B	Toxic if swallowed, by skin contact or by inhalation.	3464
3464	ORGANOPHOSPHORUS COMPOUND, TOXIC, SOLID, N.O.S.	6.1	●	II	3 4	500 g	P002	-	IBC08	B2 B4	-	T3	TP33	F-A, S-A	Category B	See entry above	3464
3464	ORGANOPHOSPHORUS COMPOUND, TOXIC, SOLID, N.O.S.	6.1	●	II	3 3 4 4	5 kg	P002 LP02	-	IBC08	B3	-	T1	TP33	F-A, S-A	Category A	See entry above	3464
3465	ORGANOARSENIC COMPOUND, SOLID, N.O.S.	6.1	●	I	4	None	P002	-	IBC07	B1	-	T6	TP9 TP33	F-A, S-A	Category B	Toxic if swallowed, by skin contact or by inhalation.	3465
3465	ORGANOARSENIC COMPOUND, SOLID, N.O.S.	6.1	●	II	4	500 g	P002	-	IBC08	B2 B4	-	T3	TP33	F-A, S-A	Category B	See entry above	3465
3465	ORGANOARSENIC COMPOUND, SOLID, N.O.S.	6.1	●	II	3 4 4	5 kg	P002 LP02	-	IBC08	B3	-	T1	TP33	F-A, S-A	Category A	See entry above	3465

							Packing		IBC		Tank instructions						
UN No.	Name and description	Class or division	Subsi-diary risks	UN packing group	Special provi-sions	Limited quanti-ties	Instruc-tions	Provi-sions	Instruc-tion	Provi-sions	IMO	UN	Provi-sions	EmS	Stowage and segregation	Properties and observations	UN No.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
3466	METAL CARBONYLS, SOLID, N.O.S.	6.1	●	I	4	None	P002	-	IBC07	B1	-	T6	TP9 TP33	F-A, S-A	Category D. Clear of living quarters	Insoluble in water. Toxic if swallowed, by skin contact or by dust inhalation	3466
3466	METAL CARBONYLS, SOLID, N.O.S.	6.1	●	II	4	500 g	P002	-	IBC08	B2 B4	-	T3	TP33	F-A, S-A	Category B. Clear of living quarters	See entry above.	3466
3466	METAL CARBONYLS, SOLID, N.O.S.	6.1	●	II	3 4 4	5 kg	P002 LP02	-	IBC08	B3	-	T1	TP33	F-A, S-A	Category B. Clear of living quarters	See entry above.	3466
3467	ORGANOMETALLIC COMPOUND, TOXIC, SOLID, N.O.S.	6.1	●	I	4	None	P002	-	IBC07	B1	-	T6	TP9 TP33	F-A, S-A	Category B	Toxic if swallowed, by skin contact or by inhalation.	3467
3467	ORGANOMETALLIC COMPOUND, TOXIC, SOLID, N.O.S.	6.1	●	II	4	500 g	P002	-	IBC08	B2 B4	-	T3	TP33	F-A, S-A	Category B	See entry above.	3467
3467	ORGANOMETALLIC COMPOUND, TOXIC, SOLID, N.O.S.	6.1	●	II	3 4 4	5 kg	P002 LP02	-	IBC08	B3	-	T1	TP33	F-A, S-A	Category A	See entry above.	3467
3468	HYDROGEN IN A METAL HYDRIDE STORAGE SYSTEM	2.1	-	-	1	None	P099	-	-	-	-	-	-	F-D, S-U	Category D	Article containing flammable odourless gas.	3468

AMENDMENTS TO SPECIAL PROVISIONS

Chapter 3.3

SP29 Amend to read:

"The packages, including bales, are exempt from labelling provided that they are marked with the appropriate class (*e.g.* "class 4.2"). Packages, with the exception of bales, shall also display the Proper Shipping Name and the UN number of the substance that they contain in accordance with 5.2.1. In any case, the packages, including bales, are exempt from class marking provided that they are loaded in a cargo transport unit and that they contain goods to which only one UN number has been assigned. The cargo transport units in which the packages, including bales, are loaded shall display any relevant labels, placards and marks in accordance with chapter 5.3.".

SP63 Amend as follows:

Replace .1 and .2 with the following:

".1 class 2.1 applies if the contents include 85% by mass or more flammable components and the chemical heat of combustion is 30 kJ/g or more;

.2 class 2.2 applies if the contents contain 1% by mass or less flammable components and the heat of combustion is less than 20 kJ/g."

Insert a new .3 as follows:

".3 Otherwise the product shall be classified as tested by the tests described in the United Nations *Manual of Tests and Criteria*, Part III, section 31. Extremely flammable and flammable aerosols shall be classified in class 2.1; non-flammable in class 2.2;".

The existing subparagraphs .3, .4 and .5 become .4, .5 and 6, respectively.

Add a new subparagraph .7 as follows:

".7 Except for consignments transported in limited quantities (see chapter 3.4), packages containing aerosols shall bear labels for the primary risk and for the subsidiary risk(s), if any.".

Add at the end a new paragraph to read as follows:

"Flammable components are flammable liquids, flammable solids or flammable gases and gas mixtures as defined in Notes 1 to 3 of sub-section 31.1.3 of Part III of the United Nations *Manual of Tests and Criteria.* This designation does not cover pyrophoric, self-heating or water-reactive substances. The chemical heat of

combustion shall be determined by one of the following methods ASTM D 240, ISO/FDIS 13943: 1999 (E/F) 86.1 to 86.3 or NFPA 30B.".

SP 66 Amend to read:

"Mercurous chloride shall be transported under UN 3077 and cinnabar is not subject to the provisions of this Code.".

SP 179 Amend to read:

"This designation shall be used for substances and mixtures which are dangerous to the aquatic environment or which are Marine Pollutants that do not meet the classification criteria of any other class or another substance within class 9. This designation may also be used for wastes not otherwise subject to this Code but which are covered under the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal (1989) and for substances designated to be environmentally hazardous substances by the competent authority of the country of origin, transit or destination which do not meet the criteria for an environmentally hazardous substance in accordance with this Code or for any other hazard class.".

SP 215 Add the following text at the end:

"Homogeneous mixtures containing not more than 35 % by mass of azocarbonamide and at least 65 % of inert substance are not subject to this Code unless criteria of other classes are met.".

SP219 Amend to read as follows:
"Genetically modified micro-organisms and genetically modified organisms which meet the definition of an infectious substance and the criteria for inclusion in class 6.2 in accordance with chapter 2.6 shall be transported as UN 2814, UN 2900 or UN 3373, as appropriate.".

SP243 Amend to read as follows:
"Gasoline, motor spirit and petrol for use in spark-ignition engines (e.g. in automobiles, stationary engines and other engines) shall be assigned to this entry regardless of variations in volatility.".

SP 247 Amend the last sentence to read ".5 when carried on board ships, the containers shall be stowed in open cargo spaces or in enclosed cargo spaces complying with the requirements for class 3 flammable liquids with a flashpoint of 23°C c.c. or less in regulation II-2/19 of SOLAS 74, as amended.".

SP 281 Delete last sentence.

SP 294 Amend packing instruction reference to read "P407".

SP 296 Replace the existing text with the following:

"These entries apply to life-saving appliances such as life rafts, personal flotation devices and self-inflating slides. UN 2990 applies to self-inflating appliances. UN 3072 applies to life-saving appliances that are not self-inflating. Life-saving appliances may contain:

.1 signal devices (class 1) which may include smoke and illumination signal flares packed in packagings that prevent them from being inadvertently activated;

.2 for UN 2990 only, cartridges, power device of division 1.4, compatibility group S, may be contained for purposes of the self-inflating mechanism and provided that the quantity of explosives per appliance does not exceed 3.2 g;

.3 class 2.2 compressed gases;

.4 electric storage batteries (class 8) and lithium batteries (class 9);

.5 first aid kits or repair kits containing small quantities of dangerous goods (e.g.: classes 3, 4.1, 5.2, 8 or 9 substances); or

.6 "Strike anywhere" matches packed in packagings that prevent them from being inadvertently activated.".

SP 299 Amend to read:

"299 Consignments of:

(i) Cotton, dry having a density not less than 360 kg/m^3
(ii) Flax, dry having a density not less than 400 kg/m^3
(iii) Sisal, dry having a density not less than 620 kg/m^3

according to ISO 8115:1986, are not subject to the provisions of this Code when transported in closed cargo transport units.".

SP 306 Delete.

SP 309 Amend last sentence to read as follows:
"Substances shall satisfactorily pass Test Series 8 of the United Nations *Manual of Tests and Criteria*, Part I, Section 18.".

SP 900 Add, in alphabetical order, "Ammonium hypochlorite".

SP 906 Delete.

SP 908 Amend to read: "This entry also covers, articles, such as transformers and condensers, containing free liquid polychlorinated biphenyls, polyhalogenated biphenyls or polyhalogenated terphenyls.".

SP 910 Amend to read:

"A 'FUMIGATED UNIT' is a closed cargo transport unit loaded with cargoes under fumigation. The fumigant gases used are either poisonous or asphyxiant. The gases are usually evolved from solid or liquid preparations distributed within the unit. Fumigated units are subject to the following provisions:

1 Cargo transport units shall be fumigated and handled taking into account the provisions of the IMO publication *Recommendations on the Safe Use of Pesticides in Ships*, as amended.

2 Only cargo transport units that can be closed in such a way that the escape of gas is reduced to a minimum shall be used for the transport of fumigated cargo.

3 Class 9 placards shall not be affixed to a fumigated unit, except as required for other class 9 substances or articles packed therein (see 5.3.1.3).

4 Fumigated units shall be marked with a warning sign affixed to the access door(s) identifying the type and amount of fumigant used and the date and time of fumigation (see 5.3.2.5).

5 The transport document for a fumigated unit shall show the type and amount of fumigant used and the date and time of fumigation (see 5.4.4.2). In addition, instructions for disposal for any residual fumigant, including fumigation devices if used, shall be provided.

6 A closed cargo transport unit that has been fumigated is not subject to the provisions of this Code if it has been completely ventilated either by opening the doors of the unit or by mechanical ventilation after fumigation to ensure that no harmful concentration of gas remains. When completely ventilated, the fumigation warning sign(s) shall be removed. (See also 7.4.3).

7 When fumigated units are stowed under deck, equipment for detecting fumigant gas(es) shall be carried on the ship with instructions for their use.

8 Fumigants shall not be applied to the contents of a cargo transport unit once it has been loaded aboard the ship.".

SP 913 Delete.

SP 933 Delete.

SP 936 Delete.

SP 938 Add as the first sentence the following: "Propionic acid having a flashpoint at or below 61°C c.c. shall be transported under UN 2924.".

SP 940 Delete.

Add the following new special provisions:

"**311** Substances shall not be transported under this entry unless approved by the competent authority on the basis of the results of appropriate tests according to Part I of the United Nations *Manual of Tests and Criteria*. Packaging shall ensure that the percentage of diluent does not fall below that stated in the competent authority approval at any time during transport.

313 Substances and mixtures meeting the criteria for class 8 shall be labelled with a "CORROSIVE" subsidiary risk label.

314 a) These substances are liable to exothermic decomposition at elevated temperatures. Decomposition can be initiated by heat or by impurities (e.g. powdered metals (iron, manganese, cobalt, magnesium) and their compounds).

b) During the course of transport, these substances shall be shaded from direct sunlight and all sources of heat and be placed in adequately ventilated areas.

315 This entry shall not be used for class 6.1 substances which meet the inhalation toxicity criteria for packing group I described in 2.6.2.2.4.3.

316 This entry applies only to calcium hypochlorite, dry or hydrated, when transported in non friable tablet form.

317 "Fissile-excepted" applies only to those packages complying with 6.4.11.2.

318 For the purposes of documentation, the Proper Shipping Name shall be supplemented with the technical name (see 3.1.2.8). Technical names need not be shown on the package. When the infectious substances to be transported are unknown, but suspected of meeting the criteria for inclusion in category A and assignment to UN 2814 or UN 2900, the words "suspected category A infectious substance" shall be shown, in parentheses, following the Proper Shipping Name on the transport document, but not on the outer packagings.

319 This entry applies to human or animal material including, but not limited to, excreta, secreta, blood and its components, tissue and tissue fluids, and body parts being transported for purposes such as research, diagnosis, investigation, disease treatment or prevention. Substances packed and packages marked in accordance with packing instruction P650 are not subject to any other provisions of this Code.

320 Irrespective of 2.0.2.2, this entry or the appropriate generic entry may be used.

321 These storage systems shall always be considered as containing hydrogen.

956 Consignments of life-saving appliances, containing no dangerous goods other than carbon dioxide cylinders with a capacity not exceeding 100 cm^3, provided that they are overpacked in wooden or fibreboard boxes with a maximum gross mass of 40 kg, are not subject to the provisions of this Code.

957 Lithium cells and batteries manufactured before 1 January 2003 that have not been tested in accordance with the requirements in chapter 38.3 of the United Nations *Manual of Tests and Criteria*, as well as articles which contain such lithium cells or batteries, may be transported until 31 December 2013 if all applicable provisions of this Code are met.

958 This entry covers articles, such as rags, cotton waste, clothing, sawdust, containing polychlorinated biphenyls, polyhalogenated biphenyls or polyhalogenated terphenyls where no free visible liquid is present.".

Chapter 3.4

3.4.7 Delete "Proper Shipping Name and".

Chapter 3.5

Delete chapter 3.5.

APPENDIX A

Class 3 table

3256 Amend "60.5" to read "61" in entry.

3379 Add entry as "3 DESENSITIZED EXPLOSIVE, LIQUID, N.O.S.".

Class 4.1 table

3380 Add entry as "4.1 DESENSITIZED EXPLOSIVE, SOLID, N.O.S.".

Class 4.2 table

Delete entries 2003, 3049, 3050 and 3203.
Add entries 3391, 3392, 3393, 3394 and 3400 as in DGL.

Class 4.3 table

Delete entries 3207 and 3372.
Add entries 3395, 3396, 3397, 3398, 3399, 3401 and 3402, as in DGL.
Add "LIQUID" in entries 1389 and 1392.

Class 6.1 table

Add 10 entries 3381 to 3390, as in DGL under 'General entries'.
Add 8 entries 3439, 3440, 3448, 3462, 3464, 3465, 3466 and 3467, as in DGL.
Add "LIQUID" in entries 1693, 3172, 3276, 3278, 3280, 3281 and 3282.
Add "SOLID" in entry 3283.
Amend entry 2993 at end to read "… FLAMMABLE flashpoint between 23ºC and 61ºC".

Class 6.2 table

Amend the following entry to read: "6.2 3373 DIAGNOSTIC or CLINICAL SPECIMENS".

APPENDIX B

For "AIR-BAG" read "AIR BAG" (3 times).

INDEX

Amend the index in accordance with the relevant amendments adopted.

The EmS Guide

Delete the UN numbers before each EmS Schedule.

Index (to the EmS Guide)

Add the following:

3377	F-A	S-Q	3407	F-H	S-Q	3438	F-A	S-A
3378	F-A	S-Q	3408	F-H	S-Q	3439	F-A	S-A
3379	F-E	S-Y	3409	F-A	S-A	3440	F-A	S-A
3380	F-B	S-J	3410	F-A	S-A	3441	F-A	S-A
3381	F-A	S-A	3411	F-A	S-A	3442	F-A	S-A
3382	F-A	S-A	3413	F-A	S-A	3443	F-A	S-A
3383	F-E	S-D	3414	F-A	S-A	3444	F-A	S-A
3384	F-E	S-D	3415	F-A	S-A	3445	F-A	S-A
3385	F-G	S-N	3416	F-A	S-A	3446	F-A	S-A
3386	F-G	S-N	3417	F-A	S-G	3447	F-A	S-A
3387	F-A	S-Q	3418	F-A	S-A	3448	F-A	S-A
3388	F-A	S-Q	3419	F-A	S-B	3449	F-A	S-A
3389	F-A	S-B	3420	F-A	S-B	3450	F-A	S-A
3390	F-A	S-B	3421	F-A	S-B	3451	F-A	S-A
3391	F-G	S-M	3422	F-A	S-B	3452	F-A	S-A
3392	F-G	S-M	3423	F-A	S-B	3453	F-A	S-B
3393	F-G	S-M	3424	F-A	S-A	3454	F-A	S-A
3394	F-G	S-M	3425	F-A	S-B	3455	F-A	S-B
3395	F-G	S-N	3426	F-A	S-A	3456	F-A	S-B
3396	F-G	S-N	3427	F-A	S-A	3457	F-A	S-A
3397	F-G	S-N	3428	F-A	S-A	3458	F-A	S-A
3398	F-G	S-N	3429	F-A	S-A	3459	F-A	S-A
3399	F-G	S-N	3430	F-A	S-A	3460	F-A	S-A
3400	F-A	S-J	3431	F-A	S-A	3461	F-G	S-M
3401	F-G	S-N	3432	F-A	S-A	3462	F-A	S-A
3402	F-G	S-N	3433	F-G	S-M	3464	F-A	S-A
3403	F-G	S-L	3434	F-A	S-A	3465	F-A	S-A
3404	F-G	S-L	3435	F-A	S-A	3466	F-A	S-A
3405	F-H	S-Q	3436	F-A	S-A	3467	F-A	S-A
3406	F-H	S-Q	3437	F-A	S-A	3468	F-D	S-U

Amend the following:

Underline the "F-X" code for:

UN 0018 UN 0019 UN 0020 UN 0021 UN 0248 UN 0249 UN 0301 UN 1001 UN 1003 UN 1014 UN 1038 UN 1070 UN 1072 UN 1073 UN 1075 UN 1162 UN 1250 UN 1298 UN 1381 UN 1415 UN 1418 UN 1717 UN 1965 UN 1966 UN 2201 UN 2447 UN 2977 UN 2978 UN 2985 UN 3138 UN 3156 UN 3157 UN 3160 UN 3268 UN 3309 UN 3312 UN 3332 UN 3333 UN 3374.

Underline the “S-X” code for:

UN 1001 UN 1136 UN 1139 UN 1263 UN 1295 UN 1614 UN 1993 UN 2029 UN 2210 UN 2749 UN 2802 UN 2809 UN 2968 UN 2977 UN 3257 UN 3258 UN 3316 UN 3324 UN 3325 UN 3326 UN 3327 UN 3328 UN 3329 UN 3330 UN 3331 UN 3359 UN 3363 UN 3374.

Delete the following UN numbers from the index: UN 2003, 2068, 2069, 2070, 3049, 3050, 3203, 3207, 3353 and 3372.

Amend the index as follows:

For UN 1278, replace “S-C” with “S-D”.
For UN 2921, replace “S-C” with “S-G”.
For UN 3205 and UN 3206, replace “S-Q” with “S-J”.

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