

Land Transport Rule: Dangerous Goods 2005

Rule 45001/1

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AMENDMENTS

Land Transport Rule: Dangerous Goods Amendment 2010 (Rule 45001/2)
Land Transport Rule: Dangerous Goods Amendment 2011 (Rule 45001/3)

Objective of the rule

Land Transport Rule: Dangerous Goods 2005 sets out the requirements for the safe transport of dangerous goods on land in New Zealand. The Rule covers the packaging, identification and documentation of dangerous goods; the segregation of incompatible goods;

transport procedures and the training and responsibilities of those involved in the transport of dangerous goods. The Rule's requirements are applied according to the nature, quantity and use of the goods.

The Rule revokes and replaces *Land Transport Rule: Dangerous Goods 1999*, which came into force on 3 May 1999. That Rule set in place a workable regime whose objective was to enable dangerous goods to be transported safely and, thereby, minimise the risk to people, to property and to the environment.

The changes to the Rule are mainly of a minor technical nature, but are intended to ensure that uniformity is maintained with international maritime and aviation codes for the transport of dangerous goods. Revision of the Rule takes into account amendments to the *United Nations Recommendations on the Transport of Dangerous Goods – Model Regulations* and aligns transport controls with regulations made under the *Hazardous Substances and New Organisms Act 1996*, which imposes controls for all phases of the life cycle of hazardous substances.

Extent of consultation

Land Transport Rule: Dangerous Goods 2005 underwent consultation with industry groups, interested government departments and agencies and the public. The Land Transport Safety Authority worked closely, in particular, with officials of the Department of Labour, Ministry for the Environment and the Environmental Risk Management Authority on ensuring the compatibility of the Rule with other legislation relating to hazardous substances. The Land Transport Safety Authority also sought advice and comment from the technical working group that comprises experts from government and industry.

The yellow (public consultation) draft of the Rule was released in April 2003 for public consultation. The availability of the yellow draft was publicised in metropolitan and regional daily newspapers, the *New Zealand Gazette* and in the national Maori publication *Te Karere National News*. The draft Rule was also made available on the Land Transport Safety Authority's Internet website. Copies of the draft Rule were sent to overseas libraries and transport organisations.

Forty-seven submissions were received on the yellow draft. The submissions were taken into account in redrafting the Rule before it was submitted to Cabinet, and to the Minister for Transport Safety for signature.

Material incorporated by reference

Documents that are “incorporated by reference” in this Rule are available, on request, for inspection (free of charge) at the National Office of the [New Zealand Transport Agency]. Contact details for the [New Zealand Transport Agency] are:

NZ Transport Agency

Private Bag 6995

Wellington 6141

New Zealand

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Part 1 Rule requirements

(r 1.1 to r 10.7)

Section 1 Application

1.1 Title

This Rule is *Land Transport Rule: Dangerous Goods 2005*.

1.2 Scope of the rule

1.2(1) This Rule applies to the transport on land of:

- (a) substances or articles that have the properties and belong to the classes and divisions described in *Table A: Properties and classification of dangerous goods for land transport*; and
- (b) substances or articles declared to be dangerous goods for transport on land by the relevant regulatory authority; and
- (c) empty receptacles that have contained substances or articles referred to in *1.2(1)(a)* or *(b)*, but have not been cleaned.

1.2(2) The Rule does not apply to the transport on land of dangerous goods that are:

- (a) required for the motive power or control of the vehicle and are contained within the fuel system, electrical system or control system; or
- (b) required for the operation of ancillary equipment on the vehicle and are contained within the fuel system or electrical system; or
- (c) required for the operation of ancillary equipment on the vehicle and are an integral part of that equipment and are not part of the load; or
- (d) domestic rubbish transported for disposal in accordance with local authority requirements; or

- (e) transported under the direction of a dangerous goods enforcement officer, a police officer, a HSNO enforcement officer or emergency services personnel in an emergency situation; or
- (f) transported by a member of the New Zealand Defence Force, a police officer or an employee of the Crown if:
 - (i) the dangerous goods are being transported for reasons of national security or in the interests of the safety or health of any member of the public in an emergency or when carrying out training exercises for emergencies; and
 - (ii) a Dangerous Goods Declaration as specified in 5.2(2) and emergency response information are located in a position in the vehicle where they would be readily available in an emergency involving the vehicle; or
- (g) animal wastes discharged from animals while being transported on the vehicle.

1.2(3) The Rule does not apply to the transport of substances or articles that are declared not to be dangerous goods for transport on land by the relevant regulatory authority.

1.3 Date when rule comes into force

1.3(1) This Rule revokes and replaces *Land Transport Rule: Dangerous Goods 1999*, which came into force on 3 May 1999.

1.3(2) This Rule comes into force on 27 June 2005.

1.4 Application of rule provisions

1.4(1) If a document incorporated by reference in this Rule makes an exception from transport controls for specified dangerous goods or in specified circumstances, those dangerous goods may comply with that exception, unless the Rule has specific provisions for the transport of those dangerous goods that conflict with that exception.

1.4(2) Special Provisions for specific dangerous goods stated in any of the following documents apply, as appropriate for the transport of those goods on land:

- (a) *[New Zealand Standard 5433:2007], Transport of Dangerous Goods on Land*; or
- (b) *United Nations Recommendations on the Transport of Dangerous Goods – Model Regulations*; or
- (c) *International Maritime Dangerous Goods Code*; or
- (d) *Technical Instructions for Safe Transport of Dangerous Goods by Air* of the International Civil Aviation Organisation; or
- (e) *Dangerous Goods Regulations* of the International Air Transport Association.

[Note: See section 165 of the *Land Transport Act 1998*, which provides that material may be incorporated in a Rule by reference and forms part of the Rule for all purposes and, if any of that material is amended or replaced by the person or organisation originating the material, once available for inspection, the amendment or new version forms part of the Rule unless the Rules otherwise provide.]

1.4(3) Dangerous goods imported into New Zealand in closed packages or freight containers do not have to comply with the provisions of this Rule for packaging, labelling, marking, documentation, and segregation specified in 6.3 for transport from the port of entry to the destination stated on the import documentation, if they comply with the corresponding provisions of one of the following:

- (a) *International Maritime Dangerous Goods Code*; or
- (b) *Technical Instructions for the Safe Transport of Dangerous Goods by Air* of the International Civil Aviation Organisation; or
- (c) *Dangerous Goods Regulations* of the International Air Transport Association.

1.4(4) If any other enactment specifies requirements for dangerous goods being transported on land that are additional to those in this Rule, those additional requirements must be complied with.

1.5 Interpretation of rule provisions

1.5(1) If an explosive article (such as a fog signal, firework, fuse, rocket, percussion cap, detonator, cartridge or ammunition) comprises both an explosive substance and a device or contrivance that utilises the explosive to produce a ballistic, pyrotechnic or explosive effect, the entire article is Class 1 dangerous goods.

1.5(2) If this Rule requires a package to be marked with the proper shipping name of the dangerous goods, and that proper shipping name includes the words “Not Otherwise Specified” or the letters “[N.O.S.]”, the package:

- (a) must be marked with the proper shipping name and the technical name of the dangerous goods; or
[Note: See definition of “proper shipping name” in Part 2 Definitions.]
- (b) [until 31 December 2010] may be marked with the technical name of the dangerous goods only.

1.5(3) If this Rule requires a UN number to be displayed, the number must be preceded by the letters “UN”.

Section 2

Requirements according to the nature, quantity and use of dangerous goods

2.1 Dangerous goods not transported for hire or direct reward

2.1(1) Dangerous goods transported for domestic or recreational purposes, but not transported for hire or direct reward, must comply as follows:

- (a) if the quantity of dangerous goods of a single class or division, or the aggregate quantity of a mixed load, is within the limit in *Schedule 1*, each package of dangerous goods must:
 - (i) be loaded, secured, segregated, transported and unloaded safely to ensure that the packaging remains fit for its purpose and the dangerous goods do not present a hazard to any person, to property or to the environment; and
 - (ii) comply with packaging requirements as specified in 3.3; and
 - [(iii) be labelled and marked as required by 4.4 and display placards and special marks as required by 7.4; and]
 - (iv) be transported in accordance with the relevant responsibilities in 10.1; or
- (b) if the quantity of dangerous goods of a single class or division, or the aggregate quantity of a mixed load transported on a vehicle or vehicle combination exceeds the limit in *Schedule 1*, the relevant requirements of all sections of this Rule must be complied with.

2.1(2) Dangerous goods transported for use as tools-of-trade, for agricultural use or for a commercial purpose, but not transported for hire or direct reward, must comply as follows:

- (a) if the quantity of dangerous goods of a single class or division, or the aggregate quantity of a mixed load, is within the limit in *Schedule 1*, each package of dangerous goods must:
 - (i) be loaded, secured, segregated, transported and unloaded safely to ensure that the packaging remains fit for its purpose and the dangerous goods do not present a hazard to any person, to property or to the environment; and
 - (ii) comply with the packaging requirements appropriate to the quantity of dangerous goods, as specified in *section 3*; and
 - [(iii) be labelled and marked as required by 4.4 and display placards and special marks as required by 7.4; and]
 - (iv) be accompanied by emergency response information in accordance with 8.3; and
 - (v) be transported in accordance with 9.1 and the relevant responsibilities in 10.1; or
- (b) if the quantity of dangerous goods of any single class or division, or the aggregate quantity of a mixed load transported on a vehicle or vehicle combination, exceeds the limit in *Schedule 1*, the relevant requirements of all sections of this Rule must be complied with.

2.2 Dangerous goods transported for hire or reward

Dangerous goods transported for hire or reward by a licensed transport service operator and dangerous goods transported for direct reward, whether or not by a licensed transport service operator, must comply with:

- (a) the requirements for Dangerous Goods in Limited Quantities or Consumer Commodities, as specified in 2.3; or
- (b) the requirements for Small Packages as specified in 2.4 or 2.5; or
- (c) the requirements for routine diagnostic specimens or low risk biological products, as specified in 2.6; or
- [(ca) the requirements for dangerous goods in excepted quantities or excepted packages of radioactive material in 2.9; or
[Note: See definitions of “dangerous goods in excepted quantities” and “excepted packages of radioactive material” in *Part 2, Definitions.*]]
- (d) the relevant requirements of all sections of this Rule, except those requirements that specifically relate to dangerous goods:
 - (i) specified in 2.2(a) to [2.2(ca)]; or
 - (ii) transported for domestic or recreational purposes, or for use as tools-of-trade, for agricultural use or for a commercial purpose, but not transported for hire or direct reward.

2.3 Dangerous Goods in Limited Quantities and Consumer Commodities

2.3(1) Dangerous Goods in Limited Quantities and Consumer Commodities, as appropriate, may be transported under the following conditions ...:

- (a) the maximum quantity of dangerous goods in the inner packaging must be within the limit specified for dangerous goods packed in limited quantities according to the class or division, and packing group, or as specified for a particular entry in the list of dangerous goods, in:
- (i) *Schedule 2 ...*; or
 - (ii) *[New Zealand Standard 5433:2007], Transport of Dangerous Goods on Land*; or
 - (iii) *United Nations Recommendations on the Transport of Dangerous Goods – Model Regulations*; or
 - (iv) *International Maritime Dangerous Goods Code*; or
 - (v) *Technical Instructions for Safe Transport of Dangerous Goods by Air* of the International Civil Aviation Organisation; or
 - (vi) *Dangerous Goods Regulations* of the International Air Transport Association; and
- (b) the inner packages must be contained in outer packaging; and
- (c) an outer package must not weigh more than:
- (i) 20 kg, if the outer packaging is a shrink-wrapped or stretch-wrapped tray; or
 - (ii) 30 kg, if the outer packaging is of any other material; and
- (d) fragile inner packaging must not be contained within outer packaging that is a shrink-wrapped or stretch-wrapped tray; and
- (e) the packaging must comply with 3.2(2); and
- [(f) Dangerous Goods in Limited Quantities must be identified in accordance with 4.1 with one of the following:
- (i) the UN Number of all the dangerous goods in the package, in characters at least 6 mm high, marked within a diamond with a line width of at least 2 mm; or
 - (ii) the black and white diamond-shaped Dangerous Goods in Limited Quantities mark specified in *Part 2* of this Rule or in any of the documents in 2.3(1)(a)(ii) to (vi); or
 - (iii) until 31 December 2011, in a way described in 2.3(4)(a).
- [Note: See definition of “Dangerous Goods in Limited Quantities mark” in *Part 2, Definitions.*]
- [(g) Consumer Commodities must be identified in accordance with 4.1 with one of the following:
- (i) the UN Number of all the dangerous goods in the package, in characters at least 6 mm high, marked within a diamond with a line width of at least 2 mm; or
 - (ii) the black and white diamond-shaped Dangerous Goods in Limited Quantities mark specified in *Part 2* of this Rule or in any of the documents in 2.3(1)(a)(ii) to (vi); or
 - (iii) until 31 December 2011, in a way described in 2.3(4)(b).]

(h) Dangerous Goods in Limited Quantities must be transported with documentation as specified in *section 5*, with the words “Dangerous Goods in Limited Quantities”, the abbreviation “DGLQ” or “LTD QTY” or similar words or abbreviations on the Dangerous Goods Declaration to clearly identify the goods as being Dangerous Goods in Limited Quantities; and

(i) Consumer Commodities must be transported with dangerous goods documentation that complies with 5.1 and includes:

 - (i) the words “Consumer Commodities”, on the document to clearly identify the goods as being Consumer Commodities; and
 - (ii) the name, address and, if available, a contact telephone number for the consignor; and
 - (iii) the name and signature of the consignor and a statement confirming that the dangerous goods are within the quantity limits for Consumer Commodities and are packaged, and marked or labelled in accordance with this Rule; and

(j) inner packages of dangerous goods that have to be segregated under 6.3 from other dangerous goods or food items must not be contained in the same outer packaging; and

(k) the relevant requirements of *sections 7, 8, and 9* and responsibilities in *section 10* must be complied with.

2.3(2) Dangerous Goods in Limited Quantities or Consumer Commodities that are transported under 2.3(1) do not have to comply with the requirements of this Rule for:

 - (a) [class labels on] packages; or
 - (b) segregation from dangerous goods other than explosives not specified in 2.5; or

- (c) segregation from food items.

[2.3(3) Dangerous goods listed in *Schedule 2* must not be transported as Dangerous Goods in Limited Quantities or Consumer Commodities if:

- (a) “0” is specified for the maximum quantity per inner packaging for dangerous goods listed according to class or division, and packing group if applicable, unless a quantity is specified for particular dangerous goods of that class or division, and packing group if applicable, in *Schedule 2* or one of the documents in 2.3(1)(a)(ii) to (vi); or
- (b) “0” is specified for the maximum quantity per inner packaging for the particular dangerous goods.]

2.3(4) Until 31 December 2011, to comply with 2.3(1)(f)(iii) or 2.3(1)(g)(iii):

- (a) Dangerous Goods in Limited Quantities must be marked or labelled, in accordance with 4.1, with one of the following:
- (i) the UN Number and proper shipping name of all the dangerous goods in the package; or
 - (ii) the class and division, including subsidiary risks, of all the dangerous goods in the package and the words “Dangerous Goods in Limited Quantities”, the abbreviation “DGLQ” or “LTD QTY” or similar words or abbreviations, to clearly identify the package as containing Dangerous Goods in Limited Quantities; or
 - (iii) class labels, the UN Number and the proper shipping name (as if the Dangerous Goods in Limited Quantities were standard packages of dangerous goods).

[Note: See definition of “proper shipping name” in *Part 2, Definitions*.]

- (b) Consumer Commodities must be marked or labelled, in accordance with 4.1, with one of the following:
- (i) the UN Number and proper shipping name of all the dangerous goods in the package; or
 - (ii) the class and division, including subsidiary risks, of all the dangerous goods in the package and the words “Consumer Commodities” or the abbreviation “Con Coms”, or similar words or abbreviations, to clearly identify the package as containing Consumer Commodities; or
 - (iii) the common or technical name of all the dangerous goods in the package and the words “Consumer Commodities” or the abbreviation “Con Coms”, or similar words or abbreviations, to clearly identify the package as containing Consumer Commodities; or
 - (iv) class labels, the UN Number and the proper shipping name (as if the Consumer Commodities were standard packages of dangerous goods).

2.4 Small Packages of dangerous goods

2.4(1) A Small Package that complies with the following conditions may be transported as specified in 2.4(2):

- (a) the quantity of dangerous goods in a primary container must not exceed the quantities specified for inner packaging for Dangerous Goods in Limited Quantities, or for explosives in 2.5; and
- [(b) the packaging must comply with 3.1 and with the requirements of the relevant regulatory authority; and]
- (c) the package must be marked or labelled in accordance with 4.1 to indicate the nature of its contents with at least one of the following:
 - (i) the UN Number, proper shipping name and class and division; or
 - (ii) for Dangerous Goods in Limited Quantities or Consumer Commodities, in accordance with 2.3(1)(f) or 2.3(1)(g) respectively; or
 - (iii) labels or markings required by any other enactment that clearly identify the contents of the package; and
- (d) primary containers of dangerous goods that have to be segregated under 6.3 from other dangerous goods or food items must not be contained in the same outer packaging; and
- (e) except for gas cylinders, primary containers of dangerous goods or food items that are not contained in separate outer packaging must be segregated as specified in 6.3; and
- (f) the relevant requirements of *sections 8 and 9* and responsibilities of *section 10* must be complied with.

2.4(2) Small Packages aggregated to a total quantity of 50 litres, or 50 kg including the weight of the packaging, on a vehicle or vehicle combination may be transported without having to comply with the requirements of this Rule for:

- (a) dangerous goods documentation; or
- (b) segregation from dangerous goods other than explosives not specified in 2.5, if the Small Packages are contained in separate outer packaging or if the Small Packages are gas cylinders; or

- (c) segregation from food items, if the Small Packages are contained in separate outer packaging or if the Small Packages are gas cylinders; or
- (d) the display of placards on the vehicle; or
- (e) a dangerous goods endorsement on a driver licence.

2.4(3) If the aggregate quantity of Small Packages on a vehicle or vehicle combination exceeds 50 litres, or 50 kg including the weight of the packaging, the relevant requirements of all sections of this Rule apply to the part of the load that exceeds 50 litres or 50 kg.

2.5 Small Packages of explosives

2.5(1) The following dangerous goods of Class 1 may be transported as Small Packages, in accordance with 2.4, if the weight of the dangerous goods in the primary container is 5 kg or less:

- (a) explosives listed in *Table 2.1*; and
- (b) explosives specified for that purpose by the relevant regulatory authority and transported in compliance with any additional requirements specified by that authority.

2.5(2) Any quantity of Christmas crackers (Bon Bons) packaged for retail sale (classified as UN 0337, FIREWORKS, Division 1.4S), may be transported as Small Packages in accordance with 2.4, regardless of the quantity restrictions in 2.4(2), 2.4(3), 2.5(1) and 9.2(1)(c).

Table 2.1 - Small Packages of explosives

| UN Number | Proper shipping name | Division |
|-----------|---|----------|
| UN 0012 | CARTRIDGES, SMALL ARMS | 1.4S |
| UN 0014 | CARTRIDGES, SMALL ARMS, BLANK | 1.4S |
| UN 0044 | PRIMERS, CAP TYPE | 1.4S |
| UN 0055 | CASES, CARTRIDGES, EMPTY, WITH PRIMER | 1.4S |
| UN 0070 | CUTTERS, CABLE, EXPLOSIVE | 1.4S |
| UN 0105 | FUSE, SAFETY | 1.4S |
| UN 0191 | SIGNAL DEVICES, HAND | 1.4G |
| UN 0193 | SIGNALS, RAILWAY TRACK, EXPLOSIVE | 1.4S |
| UN 0197 | SIGNALS, SMOKE | 1.4G |
| UN 0276 | CARTRIDGES, POWER DEVICE | 1.4C |
| UN 0312 | CARTRIDGES, SIGNAL | 1.4G |
| UN 0317 | FUZES, IGNITING | 1.4G |
| UN 0323 | CARTRIDGES, POWER DEVICE | 1.4S |
| UN 0325 | IGNITERS | 1.4G |
| UN 0335 | FIREWORKS (Note 1) | 1.3G |
| UN 0336 | FIREWORKS (Note 1) | 1.4G |
| UN 0337 | FIREWORKS (Note 1) | 1.4S |
| UN 0349 | ARTICLES, EXPLOSIVE, N.O.S. (Model-rocket motors, signal tubes or shock tubes only) | 1.4S |
| UN 0373 | SIGNAL DEVICES, HAND | 1.4S |
| UN 0405 | CARTRIDGES, SIGNAL | 1.4S |
| UN 0432 | ARTICLES, PYROTECHNIC (Model- rocket motors or cassette degradation devices only) | 1.4S |
| UN 0454 | IGNITERS | 1.4S |

| | | |
|---|---|------|
| UN 0503 | AIRBAG INFLATORS or AIRBAG MODULES or SEAT-BELT PRETENSIONERS | 1.4G |
| Note 1: Only fireworks that are controlled under the <i>Hazardous Substances (Fireworks) Regulations 2001</i> may be transported as Small Packages of explosives.] | | |

2.6 Routine diagnostic specimens and low risk biological products

Dangerous goods of Division 6.2 that are routine diagnostic specimens or low risk biological products do not have to comply with section 5, 6 or 7 or 9.2, if:

- (a) packaged in accordance with 3.2(5); and
- (b) marked in accordance with 4.3(5); and
- (c) transported in accordance with the requirements in section 8 and 9.1 and the relevant responsibilities of section 10.

2.7 Empty containers

2.7(1) An empty container that is designed and constructed for use with dangerous goods and has not yet been used to contain dangerous goods must, when being transported, either:

- (a) have its markings or labels removed or completely covered; or
- (b) be accompanied by a document that:
 - (i) complies with 5.1; and
 - (ii) provides an accurate description of the container; and
 - (iii) states that the container has never contained dangerous goods; and
 - (iv) includes the address, name and signature of the consignor.

2.7(2) An empty container that has been used to contain inner packages of dangerous goods, but which was not in contact with the dangerous goods must, when being transported, either:

- (a) have its markings or labels removed or completely covered; or
- (b) be accompanied by a document that:
 - (i) complies with 5.1; and
 - (ii) provides an accurate description of the container; and
 - (iii) states that the container has never been in direct contact with dangerous goods; and
 - (iv) includes the address, name and signature of the consignor.

2.7(3) An empty container that has been in contact with dangerous goods must, when being transported, either:

- (a) comply with the relevant requirements of all sections of this Rule; or
- (b) if all dangerous residue has been removed in accordance with procedures approved by the relevant regulatory authority, be accompanied by a document that:
 - (i) complies with 5.1; and
 - (ii) provides an accurate description of the container; and
 - (iii) states that the container has been cleaned in accordance with the procedures approved by the relevant regulatory authority and that the container does not contain any dangerous residue; and
 - (iv) includes a reference to the procedures approved by the relevant regulatory authority; and
 - (v) includes the address, name and signature of the consignor; or
- (c) if all dangerous residue has been removed to the satisfaction of the relevant regulatory authority, be accompanied by a document that:
 - (i) complies with 5.1; and
 - (ii) provides an accurate description of the container; and
 - (iii) is issued by the relevant regulatory authority and states that the relevant regulatory authority is satisfied that the container does not contain any dangerous residue; and
 - (iv) includes the address, name and signature of the consignor.

2.8 Goods too dangerous to be transported under normal conditions of transport

The following dangerous goods must not be transported without the approval of the relevant regulatory authority:

- (a) dangerous goods that, as presented for transport, are liable, under normal conditions encountered in transport:
 - (i) to explode; or
 - (ii) to react dangerously; or
 - (iii) to produce a flame or dangerous evolution of heat or dangerous emission of toxic, corrosive or flammable gases or vapours;
- (b) dangerous goods that the relevant regulatory authority considers to be too dangerous to transport without complying with specifically approved additional conditions.

[2.9 Dangerous goods in excepted quantities and excepted packages of radioactive material

2.9(1) Dangerous goods in excepted quantities, other than articles, that are transported in accordance with the following requirements do not have to comply with any other requirements of this Rule:

- (a) the maximum quantity of dangerous goods in an inner packaging and in an outer packaging must not exceed the quantity specified in:
 - (i) Part A of *Schedule 4*; or
 - (ii) *New Zealand Standard 5433:2007, Transport of Dangerous Goods on Land*; or
 - (iii) *United Nations Recommendations on the Transport of Dangerous Goods – Model Regulations*; or
 - (iv) *International Maritime Dangerous Goods Code*; or
 - (v) *Technical Instructions for Safe Transport of Dangerous Goods by Air* of the International Civil Aviation Organisation; or
 - (vi) *Dangerous Goods Regulations* of the International Air Transport Association; and
- (b) when dangerous goods in excepted quantities with different quantity limits are packaged together, the quantity limit for the outer packaging is the lowest outer packaging quantity for any of the goods in the package; and
- (c) the dangerous goods must be packed in three layers of packaging as follows:
 - (i) leak-proof inner packagings made from plastic (which must have a minimum thickness of 0.2 mm when used for liquids), glass, porcelain, stoneware, earthenware or metal; and
 - (ii) intermediate packagings that protect the inner packagings so that they cannot break under normal conditions of transport and that contain the contents of the inner packagings in the case of breakage and, for liquid dangerous goods, can absorb the entire contents of the inner packagings; and
 - (iii) strong outer packagings; and
- (d) packaging must comply with 3.1 and with:
 - (i) the requirements of the relevant regulatory authority; or
 - (ii) the tests, for packaging for dangerous goods in excepted quantities, specified in Part B of *Schedule 4*; or
 - (iii) the tests, for packaging for dangerous goods in excepted quantities, in one of the documents in 2.9(1)(a)(ii) to (vi); and
- (e) packages must be marked, in accordance with 4.1, with:
 - (i) the excepted quantities mark as specified in Part C of *Schedule 4* or one of the documents in 2.9(1)(a)(ii) to (vi); and
 - (ii) the class or division of all the dangerous goods in the package; and
 - (iii) the name of the consignor or consignee; and
- (f) if dangerous goods in excepted quantities are transported with a document such as a consignment note or packing slip, the document must include:
 - (i) the words “Dangerous Goods in Excepted Quantities” or similar words; and
 - (ii) the number of packages; and
- (g) inner packages of dangerous goods that have to be segregated under 6.3 from other dangerous goods or food items must not be contained in the same outer packaging; and
- (h) the number of packages of dangerous goods in excepted quantities on a vehicle or in a freight container must not exceed 1000; and
- (i) the relevant requirements in *section 8* and *clause 9.1*, and the responsibilities in *section 10*, must be complied with.

- 2.9(2) Excepted packages of radioactive material that are transported in accordance with the following requirements do not have to comply with any other requirements of this Rule:
- (a) excepted packages that meet the criteria for any other class of dangerous goods must comply with the requirements for that other class; and
 - (b) packaging must comply with 3.1 and the requirements of the relevant regulatory authority; and
 - (c) Class 7 labels must not be visible on UN 2908, RADIOACTIVE MATERIAL, EXCEPTED PACKAGE – EMPTY PACKAGING; and
 - (d) excepted packages must be marked, in accordance with 4.1, with:
 - (i) the appropriate UN Number; and
 - (ii) the name of the consignor or consignee; and
 - (iii) the permissible gross mass of the package, if the gross mass of the package exceeds 50 kg; and
 - (e) excepted packages must be transported with a document that includes the UN Number of all excepted packages in the consignment; and
 - (f) the relevant requirements in section 8 and 9.1 and responsibilities in section 10 must be complied with.
- [Note: See definition of ‘Excepted packages of radioactive material’ in Part 2, Definitions.]

Section 3 Packaging

3.1 General safety requirements

- 3.1(1) Packaging for dangerous goods must comply as follows:
- (a) it must be appropriate for the nature and quantity of the dangerous goods; and
 - (b) if it comes into contact with the dangerous goods, it must not contaminate or react with the dangerous goods; and
 - (c) it must be sufficiently robust to remain intact, and continue to contain the dangerous goods safely and without leaking, for normal conditions of loading, transport and unloading, allowing for reasonably foreseeable changes in temperature, humidity or pressure.
- 3.1(2) If there are reasonable grounds to suspect that packaging does not comply with 3.1(1), dangerous goods must not be transported unless:
- (a) the packaging can be shown by testing, documentation or other means to comply with 3.1(1); or
 - (b) the dangerous goods are repackaged by one of the methods specified in 3.1(3).
- 3.1(3) If packaging fails to comply with 3.1(1), dangerous goods must not be transported unless the dangerous goods are repackaged in:
- (a) packaging that complies with 3.1(1); or
 - (b) salvage packaging that complies with 3.2(1).

3.2 Requirements relating to the nature and quantity of the dangerous goods

- 3.2(1) Packaging for dangerous goods, except for dangerous goods specified in 3.2(2), 3.2(4), 3.2(5), 3.2(6) or 3.2(7), must either:
- (a) be type-tested, certified and marked to show it complies with the packaging requirements in the latest version of one of the following:
 - (i) *Revoked*.
 - (ii) *United Nations Recommendations on the Transport of Dangerous Goods – Model Regulations*; or
 - (iii) *International Maritime Dangerous Goods Code*; or
 - (iv) *Technical Instructions for Safe Transport of Dangerous Goods by Air* of the International Civil Aviation Organisation; or
 - (v) *Dangerous Goods Regulations* of the International Air Transport Association; or
 - (b) comply with the requirements of the relevant regulatory authority.
- 3.2(2) Packaging for Dangerous Goods in Limited Quantities, Consumer Commodities and Small Packages must comply with 3.1 and 3.2(1)(b), but does not have to comply with 3.2(1)(a).
- 3.2(3) In addition to the requirements of this Rule, the requirements for packaging of the relevant regulatory authority must be complied with when transporting:

- [(a) dangerous goods of Class or Division 1, 2, 4.1, 5.2 and 7; and]
 - (b) dangerous goods in tankwagons and other vehicles that are specially designed for dangerous goods; and
 - (c) dangerous goods in bulk.
- 3.2(4) Bitumen transported at a temperature exceeding its flash point or at an elevated temperature of 100 degrees Celsius or higher must be contained in a tankwagon or spray-wagon that:
- (a) complies with 3.1(1); and
 - (b) is designed and constructed in accordance with industry best practice.
- 3.2(5) Packaging for Division 6.2 infectious substances must:
- (a) be type-tested, certified and marked to show it complies with the packaging requirements in the latest version of one of the following:
 - (i) *Revoked*.
 - (ii) *United Nations Recommendations on the Transport of Dangerous Goods – Model Regulations*; or
 - (iii) *International Maritime Dangerous Goods Code*; or
 - (iv) *Technical Instructions for Safe Transport of Dangerous Goods by Air* of the International Civil Aviation Organisation; or
 - (v) *Dangerous Goods Regulations* of the International Air Transport Association; or
 - (b) comply with the requirements of:
 - (i) the Director-General of Health, for infectious substances that affect humans; or
 - (ii) the Director-General of Agriculture and Forestry, for infectious substances that affect animals; or
 - (c) for routine diagnostic specimens or low risk biological products, comply as follows:
 - (i) the packaging must comply with 3.1; and
 - (ii) three layers of packaging must be used; and
 - (iii) primary receptacles and one other layer of packaging must be leak-proof; and
 - (iv) when fragile primary receptacles are used, sufficient absorbent material must be placed in the packaging to absorb the liquid contents of the primary receptacles.
- [3.2(6) Packaging for dangerous goods in excepted quantities must comply with 3.1 and:
- (a) the requirements of the relevant regulatory authority; or
 - [[b) the tests for packaging for dangerous goods in excepted quantities specified in *Part B* of *Schedule 4*; or]]
 - [[c) the tests for packaging for dangerous goods in excepted quantities in one of the documents in 2.9(1)(a)(ii) to (vi).]]]
- 3.2(7) Packaging for excepted packages of radioactive material must comply with 3.1 and the requirements of the relevant regulatory authority.]
- 3.2(8) [[Dangerous goods in packagings, Intermediate Bulk Containers or large packagings, other than Dangerous Goods in Limited Quantities, Consumer Commodities, Small Packages, dangerous goods in excepted quantities and dangerous goods that comply with 3.2(5)(c), must:]]
- (a) From 1 January 2011, be packaged in accordance with the packing instructions in one of the following:
 - (i) *New Zealand Standard 5433:2007, Transport of Dangerous Goods on Land*;
 - (ii) *United Nations Recommendations on the Transport of Dangerous Goods – Model Regulations*;
 - (iii) *International Maritime Dangerous Goods Code*;
 - (iv) *Technical Instructions for Safe Transport of Dangerous Goods by Air* of the International Civil Aviation Organisation;
 - (v) *Dangerous Goods Regulations* of the International Air Transport Association; or
 - (b) comply with the requirements of the relevant regulatory authority.]
- 3.3 Requirements for dangerous goods transported for domestic or recreational purposes, for use as tools-of-trade, for agricultural use or for a commercial purpose**
- 3.3(1) Packaging for dangerous goods that are transported for domestic or recreational purposes, but are not transported for hire or direct reward, must:

- [(a) if the quantity of dangerous goods of a single class or division, or the aggregate quantity of a mixed load, is within the limit in *Schedule 1*, comply with 3.1 and the requirements of the relevant regulatory authority;]
 - (b) if the quantity of dangerous goods of a single class or division or the aggregate quantity of a mixed load, exceeds the limit in *Schedule 1*, comply with 3.1 and 3.2.
- 3.3(2) Packaging for dangerous goods that are transported for use as tools-of-trade, for agricultural use or for a commercial purpose, but are not transported for hire or direct reward, must comply with 3.1 and 3.2.

Section 4

Labelling and marking

4.1 General safety requirements

- 4.1(1) Dangerous goods that are being transported must be labelled and marked to identify the hazard they present to any person, to property or to the environment, as appropriate to the nature, quantity and use of the dangerous goods.
- 4.1(2) Labels and markings must be of an appropriate size, colour and design, and be placed on a container of dangerous goods in sufficient numbers and in appropriate positions, so that the nature of the hazard presented by the dangerous goods is clearly recognisable.
- 4.1(3) When both labels and markings are required, the corresponding labels and markings must be placed as close as practicable to each other.
- 4.1(4) Labels and markings must:
- (a) be legible; and
 - (b) be readily visible.
- 4.1(5) Labels and markings must be sufficiently durable to remain attached and legible in reasonably foreseeable conditions encountered in land transport.
- 4.1(6) If a package is too small, or is otherwise unsuitable, for labelling and marking, the labels and markings must be placed on a tag that is sufficiently firmly attached to the package to ensure the labels and markings comply with 4.1(5).
- [4.1(7) Except as specified in 2.7, labels and markings that may be misleading as to the hazard the goods present must be removed or completely covered before the goods are transported.]
- 4.1(8) Subject to 4.1(9), when this Rule requires labels or markings to be displayed, they must be displayed on at least one of the following:
- (a) outer packaging; or
 - (b) sole packaging; or
 - (c) inner packaging, if legible when prepared for transport; or
 - (d) the outside of a container in which dangerous goods are loaded, if the labels or markings on a package within are not legible when the container is prepared for transport; or
 - (e) an Intermediate Bulk Container.
- [4.1(9) If all of the packages within a unit load device are labelled and marked in accordance with this Rule, but those labels and markings are not legible when the unit load is prepared for transport, [[UN numbers and proper shipping names]] need not be displayed on the outside of the unit load but the following must be displayed on the outside of the unit load:
- [[a) the labels for each class and division (including subsidiary risks) for all the dangerous goods in the unit load, except Dangerous Goods in Limited Quantities; and]]
 - [[aa) for Dangerous Goods in Limited Quantities, the Dangerous Goods in Limited Quantities mark; and]]
 - (b) from 1 January 2011, the following special marks as required by this Rule:
 - (i) the environmentally hazardous substance mark;
 - (ii) orientation arrows.]

4.2 Requirements for labelling according to the nature and quantity of the dangerous goods

- 4.2(1) Subject to 4.1(8), and except as specified in 4.2(4) and 4.4, a package, an Intermediate Bulk Container and a unit load, containing dangerous goods, must have labels that identify:
- (a) the primary risk of the dangerous goods in the package; and
 - (b) any subsidiary risks of the dangerous goods in the package.
- 4.2(2) The design, colour, size and durability of the labels must comply with the specifications in any of the following:
- (a) [New Zealand Standard 5433:2007], *Transport of Dangerous Goods on Land*; or

- (b) *United Nations Recommendations on the Transport of Dangerous Goods – Model Regulations*; or
- (c) *International Maritime Dangerous Goods Code*; or
- (d) *Technical Instructions for Safe Transport of Dangerous Goods by Air* of the International Civil Aviation Organisation; or
- (e) *Dangerous Goods Regulations* of the International Air Transport Association.

4.2(3) Labels, in the form of placards, must be placed on the following, in accordance with *section 7*:

- (a) tankwagons and other vehicles specially designed for bulk quantities of dangerous goods; and
- (b) freight containers, portable tanks, and containers for bulk quantities of dangerous goods other than Intermediate Bulk Containers.

4.2(4) Labels that indicate the class and division of the dangerous goods are not required on packages of the following dangerous goods:

- (a) Dangerous Goods in Limited Quantities or Consumer Commodities; or
- (b) Small Packages, as specified in 2.4 and 2.5; or
- [(c) routine diagnostic specimens and low risk biological products that are marked in accordance with 4.3(5)(b) or 4.3(5)(c); or]
- (d) aerosols of Division 2.1 or 2.2; or
- [(e) dangerous goods in excepted quantities or excepted packages of radioactive material.]

4.3 Requirements for marking according to the nature and quantity of the dangerous goods

4.3(1) Subject to 4.1(8) and except as specified in 4.3(2), 4.3(3), 4.3(4)[, 4.3(5), 4.3(7) or 4.3(8)], a package or an Intermediate Bulk Container must be marked with the following to clearly identify all the dangerous goods it contains:

- (a) the UN Number of the dangerous goods; and
- (b) the proper shipping name of the dangerous goods.

[Note: See definition of “proper shipping name” in *Part 2 Definitions*.]

4.3(2) Dangerous Goods in Limited Quantities must be identified as specified in 2.3(1)(f).

4.3(3) Consumer Commodities must be identified as specified in 2.3(1)(g).

4.3(4) Small Packages must be identified as specified in 2.4 and 2.5.

4.3(5) Packages containing routine diagnostic specimens or low risk biological products must ...:

- (a) be labelled and marked in accordance with 4.1, 4.2(1), 4.2(2) and 4.3(1); or
- (b) be marked:
 - (i) in accordance with 4.1; and
 - (ii) with words to clearly identify the contents of the package as routine diagnostic specimens or low risk biological products, as appropriate[; or]

[(c) be marked:

- (i) in accordance with 4.1; and
- (ii) with the UN Number (UN 3373) within a diamond-shaped border that is at least 50 mm measured along any side; and
- (iii) with the proper shipping name (BIOLOGICAL SUBSTANCE, CATEGORY B).]

4.3(6) Tankwagons, other vehicles specially designed for bulk quantities of dangerous goods, [freight containers,] portables tanks, and containers for bulk quantities of dangerous goods other than Intermediate Bulk Containers must be marked in accordance with 7.2(5)[, 7.2(13) and 7.2(14)].

[4.3(7) Dangerous goods in excepted quantities must be identified as specified in 2.9(1)(e).]

[4.3(8) Excepted packages of radioactive material must be identified as specified in 2.9(2)(d).]

4.3(9) Subject to 4.1(8) and except as specified in 4.3(10), a package or an Intermediate Bulk Container containing dangerous goods of Class 9 that are toxic to the aquatic environment (UN 3077 or UN 3082) must be marked with the environmentally hazardous substance mark from 1 January 2011.

[Note: The environmentally hazardous substance mark is the same as the marine pollutant mark for maritime transport. The *International Maritime Dangerous Goods Code* may require this mark to be applied to packages of dangerous goods

other than UN 3077 or UN 3082. Packages marked to comply with maritime requirements may also be transported on land, but it is not necessary to comply with maritime requirements for land transport.]]

- [4.3(10) The following packagings do not have to be marked with the environmentally hazardous substance mark:
- (a) sole packagings that contain no more than 5 litres (liquids) or 5 kg (solids);
 - (b) outer packaging with inner packagings that contain no more than 5 litres (liquids) or 5 kg (solids) per inner packaging.]
- [4.3(11) Subject to 4.1(8) and except as provided in 4.3(12), the following must be marked with orientation arrows from 1 January 2011:
- (a) outer packaging that contains inner packages of liquid dangerous goods;
 - (b) sole packagings fitted with vents;
 - (c) cryogenic receptacles for transporting refrigerated, liquefied gases.]
- [4.3(12) Orientation arrows are not required on packages containing:
- (a) pressure receptacles, other than cryogenic receptacles;
 - (b) dangerous goods in inner packagings of 120 ml or less that are prepared with sufficient absorbent material between the inner and outer packagings to completely absorb the liquid contents;
 - (c) Division 6.2 infectious substances in primary receptacles of 50 ml or less;
 - (d) Class 7 radioactive material in Type IP-2, IP-3, A, B(U), B(M) or C packages;
 - (e) articles that are leak-tight in all orientations (eg, alcohol or mercury in thermometers, aerosols).]
- [4.3(13) The design, colour, size and durability of special marks must comply with the specifications in any one of the following:
- (a) *New Zealand Standard 5433:2007, Transport of Dangerous Goods on Land*; or
 - (b) *United Nations Recommendations on the Transport of Dangerous Goods – Model Regulations*; or
 - (c) *International Maritime Dangerous Goods Code*; or
 - (d) *Technical Instructions for Safe Transport of Dangerous Goods by Air* of the International Civil Aviation Organisation; or
 - (e) *Dangerous Goods Regulations* of the International Air Transport Association.

[Note: See definition of ‘special mark’ in *Part 2, Definitions*.]]

4.4 Requirements for marking or labelling dangerous goods transported for domestic or recreational purposes, for use as tools-of-trade, for agricultural use or for a commercial purpose

- 4.4(1) Dangerous goods transported for domestic or recreational purposes, for use as tools-of-trade, for agricultural use or for a commercial purpose, but not for hire or direct reward, must comply as follows:
- (a) if the quantity of dangerous goods of a single class or division, or the aggregate quantity of a mixed load, is within the limit in *Schedule 1*, the package must be marked or labelled, in accordance with 4.1, to indicate the nature of the contents with at least one of the following:
 - (i) the UN Number, proper shipping name[, special marks if applicable,] and class and division; or
 - (ii) for Dangerous Goods in Limited Quantities or Consumer Commodities, in accordance with 2.3(1)(f) or 2.3(1)(g) respectively; or
 - [(iii)] for dangerous goods in excepted quantities or excepted packages of radioactive material, in accordance with 2.9(1)(e) or 2.9(2)(d) respectively; or
 - [(iv)] labels or markings required by any other enactment that clearly identify the contents of the package;
 - (b) if the quantity of dangerous goods of a single class or division, or the aggregate quantity of a mixed load, exceeds the limit in *Schedule 1*, the dangerous goods must comply with 4.1, 4.2 and 4.3.
- 4.4(2) Dangerous goods that are contained in their retail packaging are not required to have labelling or marking on any additional packaging used to carry the dangerous goods after retail sale.

Section 5

Documentation

5.1 General safety requirements

- 5.1(1) Dangerous goods that are being transported must be accompanied by documentation identifying the dangerous goods and the hazard they present to any person, to property or to the environment, as appropriate to the nature, quantity, and use of the dangerous goods, and to the type of transport operation.
- 5.1(2) The documentation must be:
- (a) in English; and
 - (b) legible; and
 - (c) on paper or similar material and comprise either:
 - (i) one or more documents, each with a diagonally-stripped border or a bold heading to clearly identify it as a dangerous goods document; or
 - (ii) several attached documents with the first document having a diagonally-stripped border or a bold heading to clearly identify the documents as dangerous goods documents; and
 - (d) readily available at all times while dangerous goods are being transported; and
 - (e) made available to a dangerous goods enforcement officer, a police officer, a HSNO enforcement officer or to emergency services personnel immediately on request; and
 - (f) kept separate from the dangerous goods during transport; and
 - (g) passed to the next person responsible for the transport or handling of the dangerous goods when the goods are delivered, except for regular deliveries of dangerous goods to the same customer, or for regular after-hours deliveries when it is impractical to pass on the documentation.
- 5.1(3) The dangerous goods documentation must be kept separate from other documents that are not relevant to the transport of dangerous goods, in a holder that retains the documents securely and is clearly marked with the words “Dangerous Goods Documents” or similar words, and:
- (a) for a vehicle or vehicle combination transporting dangerous goods by road, is attached:
 - (i) to the inside of the driver's door; or
 - (ii) in a prominent position in the cab that is clearly visible and accessible to a person standing on the ground outside the vehicle when the driver's door is open; or
 - (iii) if the vehicle is a trailer that is not connected to a towing vehicle, in a prominent position on the trailer;
 - (b) for a rail vehicle, is placed in a prominent position from which it is readily accessible, in accordance with the safety system.
- 5.1(4) An electronic equivalent of a signature may be used to authenticate dangerous goods documentation that is transmitted to the carrier in electronic form, if:
- (a) the signature required under 5.2(2)(c)(ii) or 5.2(7)(b)(iii) is replaced by an electronic signature of the person authorised to sign, or the name, written in electronic form and in capital letters, of the person authorised to sign; and
 - (b) the electronic signature or name adequately identifies the signatory and adequately indicates the signatory's approval of the information to which the signature relates; and
 - (c) the electronic signature or name is verified by a written agreement between the person transmitting the documents and the person receiving the documents; and
 - (d) the person receiving the documents consents to receiving the electronic signature or name.

5.2 Types of documentation

Dangerous Goods Declaration

- 5.2(1) A Dangerous Goods Declaration must:
- (a) accompany dangerous goods that are being transported except as specified in 5.3; and
 - (b) except as specified in 5.2(4), be on a single page, unless the list of dangerous goods or the details about the consignee requires additional pages.
- 5.2(2) A Dangerous Goods Declaration must state:

- (a) technical information identifying the dangerous goods and the hazard they present to any person, to property or to the environment, as follows:
 - (i) the UN Number; and
 - (ii) the proper shipping name; and
[Note: See definition of “proper shipping name” in *Part 2 Definitions*.]
 - (iii) the class and the division, if assigned, and any subsidiary risks of the dangerous goods, and for dangerous goods of Class 1, the compatibility group letter; and
 - (iv) the packing group, where applicable; and
 - (v) any other technical information necessary to identify the product to ensure the dangerous goods are loaded and segregated correctly and safely, and to advise of any additional precautions that must be taken; and
- (b) except as provided under 5.2(4), information about the quantity of dangerous goods being transported, as follows:
 - [(i) the number and type of packages (eg, drums, boxes, gas cylinders, etc); and]
 - (ii) the total quantity of dangerous goods, measured by volume or mass, that is covered by the description; and
- (c) information about the consignor, as follows:
 - (i) the name, the address and, if available, a contact telephone number for the consignor; and
 - (ii) the name and signature of the consignor or the consignor's agent, and a statement confirming that all the information required in 5.2(2) is correct and the packaging, labelling and marking requirements of this Rule have been complied with; and
 - (iii) the date on which the Dangerous Goods Declaration is prepared; and
- (d) ... the name and address of the consignee, except if dangerous goods are delivered to or collected from more than one location and the quantity information required in 5.2(2)(b) is in the form of a Schedule of Quantities in accordance with 5.2(4).

5.2(3) Information additional to that required under 5.2(2), and details of non-dangerous goods that are being transported, may be included on the Dangerous Goods Declaration following the description of the dangerous goods specified in 5.2(2)(a) and 5.2(2)(b).

Schedule of Quantities

5.2(4) If a load of dangerous goods is delivered to or collected from more than one location, a Dangerous Goods Declaration must be carried, but the quantity information may be in the form of a Schedule of Quantities on a separate page or pages.

Load plan

5.2(5) A line-haul vehicle must have a load plan showing the location of all dangerous goods on the vehicle and of any other goods from which they must be segregated to comply with *section 6*.

5.2(6) If goods are loaded or unloaded, the load plan must be amended to show any changes to the location of the dangerous goods and of any other goods from which they must be segregated to comply with *section 6*.

Container Packing Certificate or Vehicle Packing Certificate

5.2(7) If the dangerous goods are in a closed, prepacked freight container or vehicle, a Container Packing Certificate or Vehicle Packing Certificate, as appropriate, must be carried and the certificate must:

- (a) indicate that:
 - (i) the freight container or vehicle was clean, dry and fit to receive the goods when packed; and
 - (ii) goods that have to be segregated comply with *section 6*; and
 - (iii) all packages have been externally inspected for damage, leaking or sifting, and only sound packages have been loaded; and
 - (iv) all packages are appropriately marked and labelled; and
 - (v) all packages have been properly loaded into the vehicle or freight container and have been secured in accordance with *section 8*; and
 - (vi) the documentation required by this Rule has been received for each dangerous goods consignment loaded in the vehicle or freight container; and
- (b) include:
 - (i) the name, address and, if available, a contact telephone number for the person who is responsible for packing the container or vehicle; and

- (ii) information to identify the freight container or vehicle such as the container identification number or vehicle registration number; and
- (iii) the signature of the person who is responsible for packing the container or vehicle and a statement confirming that all the information required under 5.2(7) is correct.

Combined documents

- 5.2(8) The information required under 5.2(5) and 5.2(7) may be combined on a single page with the Dangerous Goods Declaration.
- 5.2(9) When the Dangerous Goods Declaration is combined with a Container or Vehicle Packing Certificate and the same person is responsible for signing both parts of the combined document, and this is indicated on the document, the name, address, telephone number and signature specified in 5.2(7)(b) are not required.

5.3 When dangerous goods documents are not required

- 5.3(1) A Dangerous Goods Declaration, load plan, and Container or Vehicle Packing Certificate are not required when dangerous goods are transported:
- (a) for domestic or recreational use; or
 - (b) for use as tools-of-trade, for agricultural use or for a commercial purpose, in accordance with 2.1(2), when the quantity does not exceed the limits specified in *Schedule 1*; or
 - (c) as Small Packages in accordance with 2.4 and 2.5; or
 - (d) as routine diagnostic specimens or low risk biological products in accordance with 2.6[; or]
 - [(e) as dangerous goods in excepted quantities or excepted packages of radioactive material in accordance with 2.9.]
- 5.3(2) When Consumer Commodities are transported with dangerous goods documentation that complies with 2.3(1)(i), a Dangerous Goods Declaration, load plan and Container or Vehicle Packing Certificate, as specified in this section, are not required for the Consumer Commodities.
- 5.3(3) A Container Packing Certificate or Vehicle Packing Certificate is not required for:
- (a) tankwagons;
 - (b) other vehicles designed for bulk quantities of dangerous goods;
 - (c) portable tanks and containers for bulk quantities of dangerous goods, unless the portable tanks or containers are in a closed, prepacked freight container or vehicle.

Section 6 Segregation

6.1 General safety requirements

- 6.1(1) Dangerous goods that are being transported must, by a means appropriate to the nature, quantity and use of the dangerous goods, be segregated from:
- (a) other dangerous goods with which they might react dangerously; and
 - (b) food items they might contaminate.
- 6.1(2) When mixed classes and divisions of dangerous goods other than those specified in 6.1(3) or 6.1(4) are loaded together, the load must be segregated according to both the primary risk and any subsidiary risks each of the dangerous goods presents in relation to the other dangerous goods in the load, except when the incompatible primary and subsidiary risks are both properties of the same substance.
- 6.1(3) Dangerous goods of Class 2 in gas cylinders that comply with *section 3*, and are transported in vehicles fitted with appropriate equipment for the transport of the gas cylinders, do not have to be segregated according to the subsidiary risks of other dangerous goods of Class 2.
- 6.1(4) Class 1 explosive articles that have a subsidiary risk may be transported on the same vehicle without segregation from other Class 1 explosive articles, subject to any requirements of the relevant regulatory authority.
- 6.1(5) Segregation requirements for the transport of dangerous goods, additional to those in this Rule, that are stated in the Dangerous Goods Declaration under 5.2(2)(a)(v), or are specified in any other enactment, must be complied with.

6.2 Requirements for segregation according to the nature, quantity and use of the dangerous goods

Dangerous goods must be segregated in accordance with 6.3, except for the following quantities and uses:

- (a) dangerous goods transported for domestic or recreational purposes, for use as tools-of-trade, for agricultural use or for a commercial purpose, but not for hire or direct reward, must meet the following requirements:

- (i) if the aggregate quantity of a mixed load is within the limit specified in *Schedule 1*, the dangerous goods must comply with 6.1(1); or
 - (ii) if the aggregate quantity of a mixed load exceeds the limit in *Schedule 1*, dangerous goods of incompatible classes and divisions must be segregated as specified in this section of the Rule; and
- (b) Dangerous Goods in Limited Quantities, Consumer Commodities and Small Packages that comply with 2.3, 2.4 or 2.5, as appropriate, and are contained in separate outer packaging or are gas cylinders, may be transported without segregation:
- (i) from other dangerous goods except dangerous goods of Class 1 not specified in 2.5; or
 - (ii) from food items; and
- (c) routine diagnostic specimens or low risk biological products that comply with 2.6 may be transported without segregation from other dangerous goods or from food items; and
- (d) dangerous goods imported into New Zealand in closed packages or freight containers do not have to comply with 6.3 for transport from the port of entry to the destination stated on the import documentation, if the importer can produce evidence that the dangerous goods have been segregated in compliance with one of the following:
- (i) *International Maritime Dangerous Goods Code*; or
 - (ii) *Technical Instructions for Safe Transport of Dangerous Goods by Air* of the International Civil Aviation Organisation; or
 - (iii) *Dangerous Goods Regulations* of the International Air Transport Association; and]
- [(e) dangerous goods in excepted quantities, and excepted packages of radioactive material, that comply with 2.9 and are contained in separate outer packaging, may be transported without segregation from other dangerous goods or from food items.]

6.3 Requirements for segregation by class or division of dangerous goods

- 6.3(1) Except as specified in 6.2, 6.3(2), 6.3(3), 6.3(4), 6.3(5) and 6.3(6), dangerous goods must comply with the segregation requirements in *Schedule 3* as follows:
- (a) dangerous goods of the classes and divisions listed in *Column A* must not be loaded in the same freight container as dangerous goods or food items listed in the same row in *Column B* or *Column C*, except as specified in 6.3(1)(d); and
 - (b) dangerous goods of the classes and divisions listed in *Column A* must not be loaded on the same vehicle as dangerous goods or food items listed in the same row in *Column B*, except as specified in 6.3(1)(d); and
 - (c) dangerous goods of the classes and divisions listed in *Column A* must not be loaded on the same vehicle as dangerous goods listed in the same row in *Column C*, unless:
 - (i) they are separated horizontally by at least 3 m, regardless of any vertical separation; or
 - (ii) the dangerous goods of all but one incompatible class or division are packed in separate freight containers; or
 - (iii) 6.3(1)(d) applies; and
 - [(d) dangerous goods of the classes and divisions listed in *Column A* may be loaded in the same freight container or on the same vehicle as dangerous goods or food items listed in the same row in *Column D* if:
 - (i) the dangerous goods or food items are loaded so that all but one class or division of incompatible dangerous goods or food items are packed in separate segregation devices, unless 6.3(1)(c)(i) or (ii) applies; and
 - (ii) segregation devices comply with 6.4(1), 6.4(4) or 6.4(5), as appropriate for the class or division; and
 - (iii) 6.4(3) is complied with.]
- 6.3(2) Subject to any segregation dispensation approved by the relevant regulatory authority, dangerous goods of Class 1 or Class 7 must comply with the requirements of *Schedule 3*, as specified in 6.3(1), and any additional requirements of the relevant regulatory authority.
- 6.3(3) Explosives of Division 1.4 may be transported on the same vehicle as dangerous goods of:
- (a) Division 6.1 and Class 9; and
 - (b) Division 2.2 or 2.3 if separated horizontally by at least 3 m, regardless of any vertical separation.
- 6.3(4) Aerosol canisters with a water capacity of one litre or less may be transported without segregation from other dangerous goods of all classes and divisions or from food items, except as follows:
- (a) aerosols must not be transported on the same vehicle as dangerous goods of Class 1 not specified in 2.5; and

- (b) aerosols must not be transported in the same packaging as dangerous goods of Class 1; and
 - (c) aerosols with a subsidiary risk of Division 6.1 or Class 8 must not be transported in the same packaging as food items.
- 6.3(5) Dangerous goods of Division 2.3 or 6.1, or Class 8, may be transported on the same vehicle as food items if the dangerous goods and the food items are in separate freight containers or portable tanks.
- 6.3(6) Dangerous goods of Division 5.1 that are ammonium nitrate or other inorganic nitrates:
- (a) may be transported with the following dangerous goods, provided that the aggregate load is treated as Class 1 blasting explosives for segregation from other dangerous goods and for placarding:
 - (i) Class 1, blasting explosives Type A, B, D and E;
 - (ii) UN 0042, BOOSTERS, Division 1.1D;
 - (iii) UN 0065, CORD, DETONATING, Division 1.1D;
 - (b) must not be transported with dangerous goods that are UN 0083, EXPLOSIVE, BLASTING, TYPE C, Division 1.1D.

6.4 Use of segregation devices

- 6.4(1) Segregation devices used to achieve compliance with this Rule must:
- (a) comply with the specifications, be type-tested, certified and marked, as required for each class and division of dangerous goods, in accordance with [*New Zealand Standard 5433:2007*], *Transport of Dangerous Goods on Land*; or
 - (b) be approved by the relevant regulatory authority; or
 - (c) for segregation devices used for Division 6.2 infectious substances, comply with 6.4(4) or 6.4(5).
- 6.4(2) Subject to 6.4(3)(a), segregation devices may be used to segregate:
- (a) incompatible dangerous goods of Classes 3, 4, 5, 6 and 8 from each other or from food items; and
 - (b) dangerous goods of Class 9 when the nature of those dangerous goods requires them to be segregated from dangerous goods of Class 3, 4, 5, 6 or 8 or from food items.
- 6.4(3) The use of segregation devices, except those used for diagnostic specimens and biological products that are transported under 6.4(5), must comply with the following:
- [(a) dangerous goods of Packing Group I must not be loaded in the same freight container or on the same vehicle with incompatible dangerous goods or food items regardless of whether or not a segregation device is used, unless 6.3(1)(c)(i) or (ii) applies; and]
 - (b) dangerous goods and food items must not be packed in a segregation device unless the segregation device complies with 6.4(1); and
 - (c) packages of dangerous goods containing liquids or solids, or requiring venting or pressure relief, must be packed in appropriately designed segregation devices; and
 - (d) segregation devices must be labelled to indicate the class and division of dangerous goods they contain; and
 - (e) all packages of dangerous goods loaded in a segregation device must comply with sections 3 and 4; and
 - (f) packages must be loaded securely in a segregation device and the segregation devices must be secured in the freight container or the vehicle as specified in section 8; and
 - (g) before a segregation device is used for a different class or division of dangerous goods from its previous use, it must be inspected and, if necessary, thoroughly cleaned to remove any residue of dangerous goods that are incompatible with another class or division of dangerous goods, except as specified in 6.4(4)(b); and
 - (h) a segregation device in which food items have been packed must be used only for food items and must not be used to transport dangerous goods of any class or division; and
 - (i) food items must not be packed in a segregation device that has been used to transport dangerous goods of any class or division, or any other goods that might contaminate food items; and
 - (j) a segregation device for food items must be marked with the words 'food items' or similar words to clearly indicate the nature of the contents; and
 - (k) incompatible classes and divisions of dangerous goods or food items in the same freight container or on the same vehicle must be loaded so that all but one class or division of incompatible dangerous goods or food items are in separate segregation devices; and

- (l) a class or division of dangerous goods or food items not loaded in a segregation device, that is incompatible with goods loaded in a segregation device, must be raised clear of the floor of the freight container or vehicle by at least 100 mm; and
 - (m) a vehicle on which segregation devices are used to segregate dangerous goods of Class 3, 4 or 5 must be constructed so that it:
 - (i) complies with the upper body strength requirements specified for passenger service vehicles in *Land Transport Rule: Passenger Service Vehicles 1999*; and
 - (ii) has load anchor points that comply with the requirements of *New Zealand Standard 5444:2005, Load Anchorage Points for Heavy Vehicles*; and
 - (n) an engineer's certificate must be carried to show that a vehicle in 6.4(3)(m) complies with the construction and load anchor point requirements; and
 - (o) documentation must be carried to show that a segregation device has been approved by the relevant regulatory authority for the class or division of dangerous goods for which it is used, unless it is marked as required in 6.4(1)(a) or 6.4(5)(b) or as required by the relevant regulatory authority.
- 6.4(4) Except as specified in 6.4(5), a segregation device used to contain dangerous goods of Division 6.2 must be:
- (a) a Type 1 segregation device as specified in [*New Zealand Standard 5433:2007*], *Transport of Dangerous Goods on Land* and must be designed, type-tested and marked in accordance with that standard; and
 - (b) used only for infectious substances and not used to contain food items or any other class or division of dangerous goods.
- 6.4(5) Diagnostic specimens and biological products, other than as specified in 2.6, may be transported on the same vehicle with food items if the following are complied with:
- (a) the diagnostic specimens or biological products must be contained within inner packaging consisting of leak-proof primary receptacles and leak-proof secondary packaging and within outer packaging; and
 - (b) the packaging must be type-tested, certified and marked in accordance with the requirements for packaging for infectious substances in one of the following:
 - (i) *Revoked*.
 - (ii) *United Nations Recommendations on the Transport of Dangerous Goods – Model Regulations*; or
 - (iii) *International Maritime Dangerous Goods Code*; or
 - (iv) *Technical Instructions for Safe Transport of Dangerous Goods by Air* of the International Civil Aviation Organisation; or
 - (v) *Dangerous Goods Regulations* of the International Air Transport Association; and
 - (c) the tested outer packaging must be made of metal or plastic; and
 - (d) packaging manufactured before 3 May 1999 does not have to be marked with the code that designates the type of packaging as required under 6.4(5)(b).
- [6.5 Additional requirement for large quantities of Division 2.1 or Class 3 dangerous goods**
- 6.5(1) Except as specified in 6.2(b), 6.2(e) and 6.5(2), dangerous goods of:
- (a) Division 2.1 in undivided quantities of more than 3000 litres must not be transported:
 - (i) on the same road vehicle or vehicle combination as dangerous goods of Division 2.3 or dangerous goods of a different class; and
 - (ii) by rail, unless separated horizontally by at least 12 m and on a different rail vehicle from dangerous goods of Class or Division 1, 2.3, 3, 4, 5 or 7;
 - (b) Class 3 in undivided quantities of more than 3000 litres must not be transported:
 - (i) on the same road vehicle or vehicle combination as dangerous goods of a different class; and
 - (ii) by rail, unless separated horizontally by at least 12 m and on a different rail vehicle from dangerous goods of Class or Division 1, 2.1, 2.3, 4.2, 4.3, 5 or 7.
- 6.5(2) Despite 6.5(1)(b), dangerous goods of Class 3 in undivided quantities of more than 3000 litres may be transported on the same vehicle or vehicle combination as diesel classified as UN 3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.]

Section 7
Placarding

7.1 General safety requirements

- 7.1(1) A vehicle transporting dangerous goods that are a hazard to any person, to property or to the environment, must display placards [and special marks] identifying the hazard the dangerous goods present, as appropriate to the nature, quantity and use of the dangerous goods.
- 7.1(2) A vehicle that is not transporting dangerous goods must not display a sign, symbol or other feature that may be mistaken for a dangerous goods placard [or a special mark].
- 7.1(3) A placard [or a special mark] for the transport of dangerous goods must:
- [(a) be either:
 - (i) at least 250 mm measured along any edge, except as required for placards in 7.2(6)(b); or
 - (ii) if the design of the vehicle or the load does not allow a placard or a special mark to comply with the dimensions specified in 7.1(3)(a)(i) or 7.2(6)(b), as large as practicable; and]
 - (b) be clean, visible, unobscured and positioned on a contrasting background on the vehicle so that the nature of the load can be readily identified from a distance of 25 m in daylight; and
 - (c) not obscure any markings or plates required by any enactment; and
 - (d) be mounted on a substantially vertical surface, or on light vehicles, on as near a vertical surface as the design of the vehicle permits without creating a dangerous external projection; and
 - (e) be securely attached to the vehicle or load so that it will not become dislodged under normal conditions or reasonably foreseeable abnormal conditions of land transport; and
 - (f) be replaced if it is lost or becomes unfit for its purpose while the dangerous goods are being transported.
- 7.1(4) When dangerous goods have been unloaded from a vehicle, and dangerous residue is no longer present:
- (a) [placards and special marks] must be removed or completely covered; or
 - (b) for tankwagons, other vehicles designed for bulk quantities of dangerous goods, portable tanks and containers for bulk quantities of dangerous goods, other than Intermediate Bulk Containers, unless 7.1(4)(c) [or 7.2(8)(b)] applies, [placards and special marks] must remain displayed as required in 7.2(5); or
 - (c) for tankwagons, other vehicles designed for bulk quantities of dangerous goods, portable tanks and containers for bulk quantities of dangerous goods, other than Intermediate Bulk Containers, from which dangerous residue has been removed to the satisfaction of the relevant regulatory authority:
 - (i) [placards and special marks] must be removed or completely covered; or
 - (ii) signs that state that the vehicle or container is empty of dangerous goods and has been cleaned must be displayed.

7.2 Requirements for placarding according to the nature and quantity of the dangerous goods

- 7.2(1) Placards [and special marks] must be displayed as required by 7.2 and 7.3, except as specified in 7.4.
- 7.2(2) A vehicle or vehicle combination that transports dangerous goods of the following classes and divisions must display class placards identifying the primary risk of the dangerous goods, irrespective of the quantity of dangerous goods being transported:
- (a) Class 1, except for dangerous goods of Division 1.4S and Small Packages of explosives transported in accordance with 2.5 and listed in *Table 2.1*; and
 - (b) Division 5.2, except for Dangerous Goods in Limited Quantities transported in accordance with 2.3 or 2.4; and
 - (c) Division 6.2, except for routine diagnostic specimens and low risk biological products that comply with 2.6; and
 - [(d) Class 7, except for excepted packages of radioactive material transported in accordance with 2.9(2).]
- 7.2(3) A vehicle or vehicle combination transporting dangerous goods of the following classes or divisions[, other than dangerous goods in excepted quantities,] must display [class] placards as specified in 7.2(4):
- (a) Class or Division 2, 3, 4, 5.1, 6.1, 8 or 9; or
 - (b) Division 1.4S, or Small Packages of explosives transported in accordance with 2.5 and listed in *Table 2.1*; or
 - (c) Division 5.2, that are Dangerous Goods in Limited Quantities, transported in accordance with 2.3 or 2.4.
- 7.2(4) A vehicle or vehicle combination transporting dangerous goods [to which 7.2(3) applies] must display [class] placards as follows:

- (a) if the aggregated quantity of the dangerous goods is 50 litres or less, or the aggregated weight of the dangerous goods and their packaging is 50 kg or less, placards are not required;
 - (b) if the aggregated quantity of the dangerous goods is more than 50 litres, or the aggregated weight of the dangerous goods and their packaging is more than 50 kg:
 - (i) the appropriate class placards that identify the primary risk of the dangerous goods for each class and division of the dangerous goods being transported must be displayed; or
 - (ii) for road vehicles only, a black and orange horizontally striped placard that bears the word “dangerous” or “hazardous” must be displayed;
 - (c) if only one class or division of dangerous goods is being transported on the vehicle or vehicle combination and the aggregated quantity of the dangerous goods is more than 2500 litres, or the aggregated weight of the dangerous goods is more than 2500 kg, the appropriate class placard for the primary risk of the dangerous goods must be displayed.
- 7.2(5) Except as allowed in 7.2(7)[, 7.2(8), 7.2(11) or 7.2(12)], tankwagons, other vehicles designed for bulk quantities of dangerous goods, portable tanks, and containers for bulk quantities of dangerous goods other than Intermediate Bulk Containers must:
- (a) display the class placards that identify the primary risk and any subsidiary risks of the dangerous goods; and
 - (b) display the emergency information panel, for all the dangerous goods in the load; and
 - (c) display, for all the dangerous goods in the load, either the proper shipping name or another name that clearly identifies the nature of the hazard, in words that are legible from a distance of 10 m; and
 - (d) if used to contain substances with flammable or combustion-supporting properties, display the words “NO SMOKING OR NAKED LIGHTS WITHIN 8 METRES”, or similar words, that are legible from a distance of 10 m; and]
 - [(e) display special marks in accordance with 7.2(13) and 7.2(14).]
- 7.2(6) Subject to 7.1(3)(a)(ii), placards [and special marks] on a vehicle or vehicle combination that includes a tankwagon or other vehicle designed for bulk quantities of dangerous goods, when measured along any edge, must be at least:
- (a) 250 mm, for the placard at the front of the vehicle or vehicle combination; and
 - (b) 400 mm, for the placards at the side and rear of the tankwagon or other vehicle designed for bulk quantities of dangerous goods; and]
 - [(c) 250 mm, for special marks.
- [Note: The term “placard” includes “class placard” and “emergency information panel”, but not special marks. See *Part 2, Definitions.*]
- 7.2(7) A tankwagon that is transporting petrol, diesel or kerosene in separate compartments and has petrol or petrol vapour remaining in any compartment need only display placards and other information specified in 7.2(5) for petrol.
- [7.2(8) A bitumen tankwagon or spray-wagon:
- (a) that carries dangerous goods that are UN 3256, Hot Cutback Bitumen, Class 3 and UN 3257, Hot Bitumen, Class 9:
 - (i) need only display placards and other information specified in 7.2(5)(a), (b), (c) and (e) for UN 3256, Hot Cutback Bitumen, Class 3; and
 - (ii) does not have to comply with 7.2(5)(d);
 - (b) that carries bitumen emulsions:
 - (i) may have placards and other information specified in 7.2(5)(a), (b), (c) and (e) removed or covered; and
 - (ii) if placards and other information is removed or covered in accordance with 7.2(8)(b)(i), must display a sign that states “BITUMEN EMULSIONS contain spillage” or similar words, and that complies with 7.1(3)(b) to (f);
 - (c) does not have to be cleaned between loads of different bitumen products.]
- 7.2(9) A freight container must be placarded in accordance with the requirements of 7.1 and 7.2 as if the freight container was a vehicle, except when the freight container is loaded on a vehicle that is placarded in accordance with this section.
- 7.2(10) A vehicle transporting dangerous goods of Class 1 or Class 7:
- (a) must comply with the appropriate placarding requirements of the relevant regulatory authority that are additional to the requirements of this Rule; and

- (b) if transporting ammonium nitrate or other inorganic nitrates of Division 5.1 and explosives in accordance with 6.3(6), must have the entire load placarded as explosives.
- [7.2(11) A tankwagon that carries UN 1075, LIQUEFIED PETROLEUM GASES and also carries UN 1011, BUTANE or UN 1978, PROPANE in separate loads or in separate compartments need only display placards and other information specified in 7.2(5) for UN 1075, LIQUEFIED PETROLEUM GASES.]
- [7.2(12) A tankwagon that carries low flash point diesel (UN 1202, Class 3) and also carries high flash point diesel (UN 3082, Class 9) in separate loads or in separate compartments need only display placards and other information specified in 7.2(5) for UN 1202, GAS OIL or DIESEL FUEL or HEATING OIL, LIGHT, Class 3.]
- [7.2(13) Tankwagons, except those specified in 7.2(7) or 7.2(12), other vehicles designed for bulk quantities of dangerous goods, freight containers, portable tanks and containers for bulk quantities of dangerous goods, other than Intermediate Bulk Containers, containing dangerous goods of Class 9 that are toxic to the aquatic environment (UN 3077 or UN 3082) must be marked with the environmentally hazardous substance mark from 1 January 2011.
- [Note: The environmentally hazardous substance mark is the same as the marine pollutant mark for maritime transport. *The International Maritime Dangerous Goods Code* may require this mark to be applied to cargo transport units (road vehicles, rail vehicles, freight containers, and portable tanks) containing dangerous goods other than UN 3077 or UN 3082. Cargo transport units marked to comply with maritime requirements may also be transported on land, but it is not necessary to comply with maritime requirements for land transport.]
- [[[Note: Intermediate Bulk Containers do not need to display a 250 x 250 mm environmentally hazardous substance mark but must display the 100 x 100 mm environmentally hazardous substance mark in accordance with 4.3(9) and 4.3(13).]]]
- [7.2(14) Tankwagons, other vehicles designed for bulk quantities of dangerous goods, freight containers, portable tanks and containers for bulk quantities of dangerous goods, other than Intermediate Bulk Containers, containing a substance in a liquid state at a temperature of 100°C or more, or in a solid state at a temperature of 240°C or more must be marked with the elevated temperature mark from 1 January 2011.]

[7.3 Placement of placards

- 7.3(1) For road transport, placards, special marks and other relevant information specified in 7.2(5) must be affixed to a vehicle or vehicle combination transporting dangerous goods, as follows:
- for a single vehicle, class placards at the front and at the rear;
 - when any vehicle in a vehicle combination is transporting dangerous goods, class placards at the front and the rear of the vehicle combination;
 - for a tankwagon or other vehicle designed for bulk quantities of dangerous goods:
 - the class placards specified in 7.2(2) or 7.2(4), either at the front of the vehicle or, if the tankwagon or other vehicle designed for bulk quantities of dangerous goods is part of a vehicle combination, at the front of the vehicle combination; and
 - the class placards, emergency information panels, special marks and other relevant information specified in 7.2(5), at the rear and on both sides.
- 7.3(2) A rail vehicle that contains dangerous goods must display placards, special marks and other information as follows:
- for rail tankwagons, other rail vehicles designed for bulk quantities of dangerous goods, portable tanks and containers for bulk quantities of dangerous goods, other than Intermediate Bulk Containers, placards, special marks and other relevant information specified in 7.2(5) must be displayed on each side, on a substantially vertical surface on the tank or container, or on a suitable frame; and
 - for rail container wagons, class placards and, if required by 7.2(13) or 7.2(14), special marks must be displayed on each side, unless the freight container is placarded on the sides with the relevant class placards and special marks; and
 - for other rail vehicles, class placards must be displayed on each side, either on the door or other prominent position on a rail vehicle without a door.
- 7.3(3) Portable tanks and containers for bulk quantities of dangerous goods, other than Intermediate Bulk Containers, must have class placards, emergency information panels, special marks and other relevant information specified in 7.2(5) affixed to two opposite sides or to the front and rear.
- 7.3(4) A freight container must have class placards and, if required by 7.2(13) or 7.2(14), special marks affixed either to both sides or to the front and rear, unless the freight container is loaded on a vehicle that is placarded and marked in accordance with this section.

7.3(5) Placards do not have to be affixed to the rear of a vehicle if the load of dangerous goods displays placards that comply with this Rule and are clearly visible from behind the vehicle.]

[7.4 Requirements for dangerous goods transported for domestic or recreational purposes, for use as tools-of-trade, for agricultural use or for a commercial purpose

7.4(1) Except as provided in 7.4(2), a vehicle or vehicle combination does not have to display placards or special marks if it is transporting dangerous goods for:

- (a) domestic or recreational purposes, but not for hire or direct reward; or
- (b) use as tools-of-trade, for agricultural use or for a commercial purpose, but not for hire or direct reward, and the quantity of dangerous goods of any single class or division, or the aggregate quantity of a mixed load, is within the limit in *Schedule 1*.

7.4(2) Despite 7.4(1), placards, special marks and other relevant information in 7.2(5) must be displayed, in accordance with 7.1, 7.2 and 7.3, on:

- (a) a tankwagon, other vehicle designed for bulk quantities of dangerous goods, a portable tank, or a container for bulk quantities of dangerous goods other than an Intermediate Bulk Container; and
- (b) a vehicle or vehicle combination transporting dangerous goods for use as tools-of-trade, for agricultural use or for a commercial purpose, if the quantity of dangerous goods of a single class or division, or the aggregate quantity of a mixed load, exceeds the limit in *Schedule 1*.]

Section 8
Transport procedures

8.1 General safety requirements

8.1(1) Dangerous goods must be loaded, secured, transported and unloaded safely, as appropriate to the nature, quantity and use of the dangerous goods to ensure that:

- (a) the packaging remains fit for its purpose in accordance with 3.1(1); and
- (b) the segregation of incompatible substances is maintained; and
- (c) the dangerous goods do not, under normal conditions of transport, present a hazard to any person, to property or to the environment.

8.1(2) If a vehicle is loaded with dangerous goods, nothing must be present on the vehicle, on the surfaces on which the goods are loaded or on individual packages that may damage other packages or their contents.

8.1(3) A vehicle that is used to transport dangerous goods must be designed, constructed and maintained in accordance with the requirements of the relevant regulatory authorities.

8.1(4) Emergency equipment and information about emergency procedures, as appropriate to the nature, quantity and use of the dangerous goods, and as required by any other enactment, must be accessible at all times when dangerous goods are being transported.

8.1(5) A person or organisation that is carrying out emergency procedures following an incident involving the transport of dangerous goods must do so in a way that is appropriate to the nature and quantity of the dangerous goods, and the hazard presented to any person, to property or to the environment.

8.1(6) A vehicle transporting dangerous goods may be parked while in transit if:

- (a) when it is parked for more than 18 hours, it is parked in a depot; and
- (b) it complies with the stopping or parking restrictions of any other enactment.

8.2 Requirements for load security

Dangerous goods, and any other goods from which they must be segregated, must be secured, as follows, so that segregation distances are maintained and spillage of dangerous goods does not occur because of the movement of the load during transport:

- (a) on a road vehicle, the load must be secured using load restraints, if necessary, to withstand the acceleration and deceleration that occurs during normal conditions of transport; and
- (b) on a rail vehicle, the load must be secured with load restraints of sufficient strength to withstand the acceleration and deceleration forces that occur during shunting and main-line power braking.

8.3 Emergency response information

8.3(1) Except if 8.3(3) applies, a person who transports dangerous goods for hire or reward; or a person who transports dangerous goods for use as tools-of-trade, for agricultural use, or for a commercial purpose; or a person who transports dangerous

goods for domestic or recreational purposes when the quantity of goods transported for domestic or recreational purposes exceeds the limits specified in *Schedule 1* must:

- (a) carry emergency response information for all the dangerous goods on the vehicle; and
- (b) keep the emergency response information in the driver's cab in an accessible position; and
- (c) be aware of:
 - (i) the hazards that the dangerous goods present; and
 - (ii) the procedures for their safe loading, handling and storage on the vehicle; and
 - (iii) the emergency procedures stated in the emergency response information.

8.3(2) The consignor must supply emergency response information for the dangerous goods being transported unless the driver or operator of the vehicle indicates that he or she already has that information.

8.3(3) *Subclause 8.3(1)* does not apply when passengers carry Consumer Commodities on a passenger service vehicle.

8.4 Certain vehicles to stop at railway level crossings

8.4(1) Except as specified in *8.4(2)*, the driver of a road vehicle that is transporting the following dangerous goods must, before entering any level crossing, stop clear of the line for sufficient time to adequately ascertain if the line is clear:

- (a) dangerous goods of Class 1 other than those dangerous goods specified in *2.5*; or
- (b) dangerous goods of Division 2.1 or Class 3 in quantities of 250 litres or more; or
- (c) dangerous goods of Division 2.1 or Class 3 transported in a tankwagon, a portable tank, or a container for bulk quantities of dangerous goods.

8.4(2) *Subclause 8.4(1)* does not apply if:

- (a) the approach to a level crossing is controlled by:
 - (i) traffic signals; or
 - (ii) a warning device in the form of barrier arms; or
 - (iii) a police officer; or
 - (iv) a railway-crossing keeper; or
- (b) the road controlling authority has installed an "Exempt" sign in advance of the level crossing in accordance with *Land Transport Rule: Traffic Control Devices 2004*.]

8.5 Requirements for dangerous goods transported for domestic or recreational purposes, for use as tools-of-trade, for agricultural use or for a commercial purpose

Dangerous goods transported for domestic or recreational purposes, for use as tools-of-trade, for agricultural use or for a commercial purpose, but not for hire or direct reward, must meet the following requirements:

- (a) if the quantity of a single class or division, or the aggregate quantity of a mixed load, is within the limit in *Schedule 1*, the load must:
 - (i) be transported to comply with *8.1(1)*; and
 - (ii) if transported for use as tools-of-trade, for agricultural use or for a commercial purpose, comply with *8.3*; and
- (b) if the quantity of a single class or division, or the aggregate quantity of a mixed load, exceeds the limit specified in *Schedule 1*, the load must be transported in accordance with the requirements of this section.

Section 9 *Training*

9.1 General safety requirements

9.1(1) A person or organisation that is involved in an activity related to the transport of dangerous goods for hire or reward, for use as tools-of-trade, for agricultural use or for a commercial purpose must be able to demonstrate knowledge appropriate to the nature, quantity and use of the dangerous goods transported as follows:

- (a) the hazards associated with the dangerous goods; and
- (b) safe practice relevant to the activities they carry out; and
- (c) emergency procedures.

9.1(2) If the relevant training is not required by any other enactment, a person or organisation that employs a person to handle or transport dangerous goods must ensure the person is given adequate training to carry out their duties safely and satisfactorily as follows:

- (a) general awareness or familiarisation training; and
- (b) function-specific training; and
- (c) safety training; and
- (d) retraining, as appropriate.

9.2 Driver training

- 9.2(1) A person who drives a vehicle or vehicle combination that is transporting dangerous goods must hold a current dangerous goods endorsement on their driver licence, except if the dangerous goods are:
- (a) being transported for domestic or recreational purposes, and are not being transported for hire or direct reward; or
 - (b) being transported for use as tools-of-trade, for agricultural use or for a commercial purpose, but are not being transported for hire or direct reward, and either:
 - (i) the quantity of dangerous goods of a single class or division, or the aggregate quantity of a mixed load, is within the limit in *Schedule 1*; or
 - (ii) the driver holds a test certificate in accordance with 9.2(2); or
 - (c) Small Packages of dangerous goods, that comply with the requirements in 2.4 or 2.5, and the aggregate quantity of the dangerous goods does not exceed 50 litres, or 50 kg including the weight of the packaging; or
 - (d) routine diagnostic specimens or low risk biological products and comply with the requirements of 2.6; or
 - (e) dangerous goods in excepted quantities or excepted packages of radioactive material [[transported in accordance with 2.9]]; or
 - (f) being transported under the direct supervision of a person in the vehicle who holds a current dangerous goods endorsement on their driver licence; or
 - (g) Class 9 dangerous goods that are toxic to the aquatic environment (UN 3077 or UN 3082).]
- 9.2(2) The test certificate in 9.2(1)(b)(ii) must:
- (a) be an approved handler test certificate issued in accordance with *regulations 4 and 5 or regulation 6 of the Hazardous Substances and New Organisms (Personnel Qualifications) Regulations 2001*; and
 - (b) show that the approved handler has passed a course on the transport of dangerous goods; and
 - (c) be carried by the driver and made available to a dangerous goods enforcement officer, a police officer or a HSNO enforcement officer immediately on request.
- 9.2(3) The course referred to in 9.2(2)(b) must cover the following topics in relation to dangerous goods transported by approved handlers for use as tools-of-trade, for agricultural use or for a commercial purpose, but not transported for hire or direct reward, in quantities that exceed the limit in *Schedule 1*:
- (a) packaging, labelling and marking dangerous goods for transport;
 - (b) transport documents;
 - (c) segregation of incompatible dangerous goods and food items;
 - (d) placarding a vehicle or a load containing dangerous goods;
 - (e) transport procedures;
 - (f) the responsibilities of an approved handler in relation to the transport of dangerous goods.
- 9.2(4) The [Agency] may approve a person to provide and assess the course in 9.2(3) if the [Agency] is satisfied that person possesses the appropriate skills, training and experience to provide and assess the course.
- 9.2(5) A person who drives a rail vehicle that is transporting dangerous goods must be trained in the hazards associated with the dangerous goods, safe transport procedures and emergency procedures, in accordance with the requirements of the safety system.

Section 10 *Responsibilities*

10.1 General safety requirements

- 10.1(1) A person or organisation that is involved in an activity related to the transport of dangerous goods must undertake that activity safely and in compliance with the relevant requirements of all sections of this Rule.

- 10.1(2) A person or organisation that is not specified in *10.2* to *[10.7]*, but is involved in an activity that is related to the transport of dangerous goods, is required to comply with the relevant requirements of all sections of this Rule, according to the nature of their involvement in that activity.
- 10.1(3) A person or organisation that is transporting dangerous goods according to the nature, quantity and use of dangerous goods as specified in *section 2* must comply with the requirements in *section 2* for:
- (a) Dangerous Goods in Limited Quantities, Consumer Commodities, Small Packages, routine diagnostic specimens [, low risk biological products, dangerous goods in excepted quantities and excepted packages of radioactive material]; and
 - (b) dangerous goods transported for use as tools-of-trade, for agricultural use or for a commercial purpose, but not transported for hire or direct reward; and
 - (c) dangerous goods transported for domestic or recreational purposes but not transported for hire or direct reward.
- 10.1(4) A person or organisation transporting dangerous goods must not continue to transport those dangerous goods if the packaging they are contained in is leaking.
- 10.1(5) A person or organisation that is not transporting dangerous goods must not display, on a vehicle or load, labels, placards or markings that may be mistaken for labels, placards or markings that identify dangerous goods.
- 10.1(6) A person or organisation that is involved in any activity related to the transport of goods and who suspects that a package contains dangerous goods may:
- (a) request that the package be opened to determine:
 - (i) whether or not it contains dangerous goods; or
 - (ii) that any dangerous goods it contains comply with this Rule;
 - (b) refuse to accept the dangerous goods.

10.2 Responsibilities of the consignor

A consignor of dangerous goods for transport must ensure the following are carried out in compliance with this Rule:

- (a) the dangerous goods are properly packaged in accordance with *section 3* or *6.4(5)*; and
- (b) packages of dangerous goods display labels and markings that:
 - (i) identify the goods as dangerous goods; and
 - (ii) are in accordance with *section 4*; and
- (c) dangerous goods documentation in accordance with *section 5*:
 - (i) is supplied; and
 - (ii) contains the correct information; and
- (d) emergency response information is provided in accordance with *8.3*; and
- (e) the dangerous goods documentation is passed to the next person responsible for the transport or handling of the dangerous goods.

10.3 Responsibilities of the loader

A person who loads a vehicle or freight container used to transport dangerous goods must ensure the following are carried out in compliance with this Rule:

- (a) the condition of the packaging, labelling and marking is checked for obvious defects; and
- (b) a load plan or Container Packing Certificate or Vehicle Packing Certificate is prepared in accordance with *section 5*; and
- (c) any special loading instructions given in the dangerous goods documentation are complied with; and
- (d) mixed loads are segregated in accordance with *section 6*; and
- (e) if applicable, the vehicle or freight container is placarded in accordance with *section 7*; and
- (f) the vehicle is securely loaded in accordance with *section 8*; and
- (g) they have undergone training specific to the transport of the dangerous goods, as appropriate for the nature, quantity and use of the dangerous goods; and
- (h) the dangerous goods documentation is passed to the next person responsible for the transport or handling of the dangerous goods.

10.4 Responsibilities of the driver or operator of a road vehicle

A person who is driving or operating a road vehicle that is transporting dangerous goods must ensure the following are carried out in compliance with this Rule:

- (a) the vehicle or load is placarded in accordance with *section 7* as follows:
 - (i) placards are affixed to the vehicle or the load; and
 - (ii) placards are affixed in the correct positions on the vehicle or load; and
 - (iii) the correct placards are displayed for the classes or divisions of dangerous goods loaded on the vehicle; and
 - (iv) placards are not displayed when the vehicle is not transporting dangerous goods; and
- (b) transport procedures are complied with in accordance with *section 8* as follows:
 - (i) the vehicle is not continuously parked for more than 18 hours unless it is in a depot; and
 - (ii) the vehicle is securely loaded; and
 - (iii) emergency response information is carried; and
 - (iv) the vehicle stops at level crossings; and
- (c) they have undergone training specific to the transport of the dangerous goods, as appropriate for the nature, quantity and use of the dangerous goods in accordance with *section 9*; and
- (d) if required in *9.2(1)*, the driver has either:
 - (i) a valid dangerous goods endorsement on his or her driver licence in accordance with *9.2(1)*; or
 - (ii) a current approved handler test certificate issued in accordance with *regulations 4 and 5* or *regulation 6* of the *Hazardous Substances and New Organisms (Personnel Qualifications) Regulations 2001* showing that the approved handler has passed a course on the transport of dangerous goods; and
- [(da) if *9.2(1)(f)* applies, the supervisor holds a current dangerous goods endorsement on their driver licence; and]
- (e) the certificate in *10.4(d)(ii)* is carried when driving and is made available to a dangerous goods enforcement officer, a police officer or a HSNO enforcement officer immediately on request, in accordance with *9.2(2)(c)*; and
- (f) dangerous goods documentation is:
 - (i) carried in accordance with *section 5*; and
 - (ii) secured in the dangerous goods document holder in accordance with *section 5*; and
 - (iii) made available to a dangerous goods enforcement officer, a police officer, a HSNO enforcement officer or emergency services personnel immediately on request; and
 - (iv) passed to the next person responsible for the transport or handling of the dangerous goods; and
- (g) the Schedule of Quantities is amended to record the delivery or collection of dangerous goods; and
- (h) the load plan is amended to record the delivery or collection of dangerous goods and any other goods from which dangerous goods must be segregated.

10.5 Responsibilities of the driver or operator of a rail vehicle

A person who is driving or operating a rail vehicle that is transporting dangerous goods must ensure the following are carried out in compliance with this Rule:

- (a) they have undergone training specific to the transport of the dangerous goods, as appropriate for the nature, quantity and use of the dangerous goods and in accordance with *section 9*; and
- (b) the dangerous goods documentation is:
 - (i) carried in accordance with *section 5*; and
 - (ii) secured in the dangerous goods document holder in accordance with *section 5*; and
 - (iii) made available to a dangerous goods enforcement officer, a police officer, a HSNO enforcement officer or emergency services personnel immediately on request; and
 - (iv) passed to the next person responsible for the transport or handling of the dangerous goods.

10.6 Responsibilities of employers

A person or organisation that employs a person to carry out an activity related to the transport of dangerous goods must ensure that the employee complies with this Rule.

[10.7 Responsibilities of the supervisor

Any person who supervises, or purports to supervise, a driver under 9.2(1)(f) must:

- (a) hold a current dangerous goods endorsement; and
- (b) ensure the driver complies with the responsibilities in 10.4.]

**Part 2
Definitions**

Aerosol means a dispensing container incorporating a valve, and which contains a product maintained under a pressure greater than one atmosphere by a propellant of compressed or liquefied gas, and from which the product (and usually the propellant gas) is discharged when the valve is opened.

[**Agency** means the New Zealand Transport Agency established under section 93 of the Land Transport Management Act 2003]

Agricultural use in relation to the transport of dangerous goods, means that the goods will be used in the rearing of animals, or growing of food products or other products of the soil.

Ancillary equipment means equipment that is attached to or incorporated in a vehicle and that is not necessary for the motive power or control of the vehicle.

Approved handler means a person who holds a current test certificate certifying that the person has met the requirements of the *Hazardous Substances and New Organisms (Personnel Qualifications) Regulations 2001* in relation to an approved handler for one or more hazard classifications or hazardous substances.

Biological product means any product derived from living organisms that is used for prevention, treatment or diagnosis of disease in humans or animals or for purposes of development, experiment or investigation of disease; and includes, but is not limited to, finished or unfinished products such as vaccines and diagnostic products.

Bulk in relation to the transport of dangerous goods, means:

- (a) dangerous goods in the form of a gas, in a container in an undivided quantity exceeding 450 litres; or
- (b) dangerous goods in the form of a liquid, in a container in an undivided quantity exceeding 450 litres; or
- (c) dangerous goods in the form of solids, in a container in an undivided quantity exceeding 400 kg.

Class means the groupings, numbered from 1 to 9, into which dangerous goods are assigned on the basis of a common single or most significant hazard, as described briefly in *Table A: Properties and classification of dangerous goods for land transport* and specified in the following documents:

- (a) [*New Zealand Standard 5433:2007*], *Transport of Dangerous Goods on Land*; or
- (b) *United Nations Recommendations on the Transport of Dangerous Goods – Model Regulations*; or
- (c) *International Maritime Dangerous Goods Code*; or
- (d) *Technical Instructions for Safe Transport of Dangerous Goods by Air* of the International Civil Aviation Organisation; or
- (e) *Dangerous Goods Regulations* of the International Air Transport Association; and

reference to a class includes all divisions of that class.

[**Class label** has the same meaning as “label”.]

[**Class placard** means the items described in (a) and (b) of the definition of “Placard”.]

Cleaned means for all dangerous goods, that the container is free of dangerous residue of the substance to the satisfaction of the relevant regulatory authority.

Combination packaging means a combination of packaging for transport purposes consisting of one or more inner packagings secured in an outer packaging.

Commercial purpose in relation to the transport of dangerous goods, means the transport of dangerous goods as part of a commercial operation but not as tools-of-trade or by a licensed transport service operator or for hire or direct reward.

Common name in relation to any dangerous goods, means the name by which the substance is generally known.

Compatibility group means a grouping of types of dangerous goods of Class 1 that are deemed to be compatible. Compatibility groups are identified by a letter from A to S following the division number.

Composite packaging means packaging consisting of an inner receptacle and an outer packaging, constructed so that the inner receptacle and the outer packaging form an integral packaging and that, once assembled, remains an integrated unit and is filled, stored, transported and emptied as such.

Consignor means any person who:

- (a) transports their own dangerous goods; or
- (b) engages a prime contractor, either directly or through an agent, to transport dangerous goods; or
- (c) has possession of, or control over, dangerous goods immediately before the goods are transported; or
- (d) for the first land journey after dangerous goods are imported into New Zealand, is the importer of those goods; or

(e) agrees to be named on dangerous goods documentation as the consignor for the transport of the goods covered by that documentation.

Consumer Commodities (Con Coms) means products that are packaged as Dangerous Goods in Limited Quantities and are in a form intended, or suitable, for retail sale for the purposes of personal care or recreational or domestic use.

Container means anything in or by which dangerous goods are wholly or partly encased, covered, enclosed, contained or packed, whether it is empty or partially or completely full; but does not include a vehicle or freight container.

Container Packing Certificate means a dangerous goods document that complies with the requirements specified in 5.2(7).

[**Cultures** means infectious substances that are the result of a process by which pathogens are intentionally propagated to generate high concentrations; but does not include diagnostic specimens.]

Dangerous goods means substances or articles having the properties described in *Table A: Properties and classification of dangerous goods for land transport*, and substances or articles declared by the relevant regulatory authority to be dangerous goods for transport on land; and includes packaging and empty containers that have not been cleaned after containing dangerous goods.

Dangerous Goods Declaration means a dangerous goods document that complies with the requirements specified in 5.2(2).

Dangerous goods documentation means those documents required to be carried on vehicles carrying dangerous goods that describe the nature, quantity, packaging and loading details of the dangerous goods being transported.

Dangerous goods endorsement means a notation on a driver licence indicating that the holder has, within the past five years, completed a driver licence endorsement course for dangerous goods or hazardous substances approved by the [Agency].

Dangerous goods enforcement officer means a person appointed by warrant under *section 208* of the *Land Transport Act 1998*.

[**Dangerous goods in excepted quantities** means dangerous goods packaged so that the maximum quantity in individual inner packaging complies with the limits specified for excepted quantities according to the class and division and packing group, or as specified for a particular entry in the list of dangerous goods in any of the following:

- (a) *Schedule 4*; or
- (b) *New Zealand Standard 5433:2007, Transport of Dangerous Goods on Land*; or
- (c) *United Nations Recommendations on the Transport of Dangerous Goods – Model Regulations*; or
- (d) *International Maritime Dangerous Goods Code*; or
- (e) *Technical Instructions for Safe Transport of Dangerous Goods by Air* of the International Civil Aviation Organisation; or
- (f) *Dangerous Goods Regulations* of the International Air Transport Association.]

Dangerous Goods in Limited Quantities (DGLQ or LTD QTY) means dangerous goods packaged so that the maximum quantities in individual inner packaging comply with the limits specified for dangerous goods packed in limited quantities according to the class or division, and packing group, or as specified for a particular entry in the list of dangerous goods in any of the following:

- (a) *Schedule 2 ...*; or
- (b) [*New Zealand Standard 5433:2007*], *Transport of Dangerous Goods on Land*; or
- (c) *United Nations Recommendations on the Transport of Dangerous Goods – Model Regulations*; or
- (d) *International Maritime Dangerous Goods Code*; or
- (e) *Technical Instructions for Safe Transport of Dangerous Goods by Air* of the International Civil Aviation Organisation; or
- (f) *Dangerous Goods Regulations* of the International Air Transport Association.

[**Dangerous Goods in Limited Quantities mark** means a diamond-shaped mark meeting the following criteria:

- (a) the top and bottom corners of the mark and the line forming the diamond must be black and the centre area must be white or a contrasting background colour;
- (b) the line forming the diamond must be a minimum width of 2 mm;
- (c) the diamond must have minimum dimensions of 100 mm x 100 mm except if the size of the package requires a smaller mark, in which case it may be reduced to 50 mm x 50 mm provided it remains clearly visible.]

Depot in relation to dangerous goods, means a building, place, or vessel that may be prescribed or approved by the relevant regulatory authority as a depot for the storage of dangerous goods.

[**Diagnostic specimen** means any human or animal material that is an infectious substance and is collected directly from humans or animals, including but not limited to excreta, secretions, blood and its components, tissue and tissue fluid swabs, and body parts being transported for purposes of research, diagnosis, investigation or disease treatment or prevention; but excluding cultures and live infected animals.]

Direct reward in relation to the transport of dangerous goods, means a payment or benefit is received for transporting the goods themselves, and not for their transport for use as tools-of-trade, for agricultural use or for a commercial purpose.

Director: *Definition Revoked*

Division means the subcategories within a single dangerous goods class that cover different aspects of the common hazard and that are identified by the class number followed by a decimal point and the division number.

Domestic purposes in relation to the transport of dangerous goods, means that they are to be used in a dwelling house or other premises used predominantly for residential purposes or the garden or grounds of such premises, excluding their use in relation to any business or occupation of the user.

Electronic signature in relation to information in electronic form, means a method used to identify a person and to indicate that person's approval of that information.

[Elevated temperature mark means the mark for transport of substances at high temperature, which is symbolised by a red thermometer in a red, triangle-shaped border, as specified in any of the following:

- (a) *New Zealand Standard 5433:2007, Transport of Dangerous Goods on Land*; or
- (b) *United Nations Recommendations on the Transport of Dangerous Goods – Model Regulations*; or
- (c) *International Maritime Dangerous Goods Code*.]

Emergency information panel means a rectangular placard stating at least the following about the dangerous goods on a vehicle:

- (a) the UN Number;
- (b) the Hazchem action code;
- (c) a 24-hour emergency telephone number.

Emergency response information means information concerning the identification and the hazards specific to the dangerous goods, and the recommended procedures to use in the event of an emergency.

Emergency services personnel means any member of the New Zealand Police, New Zealand Fire Service or an ambulance service that complies with the requirements in *[NZS 8156:2008 Ambulance and Paramedical Services]*.

[Environmentally hazardous substance mark means the “environmentally hazardous substance mark” or the “marine pollutant mark” specified in any of the following:

- (a) *New Zealand Standard 5433:2007, Transport of Dangerous Goods on Land*; or
- (b) *United Nations Recommendations on the Transport of Dangerous Goods – Model Regulations*; or
- (c) *International Maritime Dangerous Goods Code*; or
- (d) *Technical Instructions for Safe Transport of Dangerous Goods by Air* of the International Civil Aviation Organisation; or
- (e) *Dangerous Goods Regulations* of the International Air Transport Association.]

[Excepted packages of radioactive material:

- (a) means empty packagings that have contained radioactive material or packages that contain radioactive material in limited quantities, instruments or manufactured articles as specified:
 - (i) in the *Regulations for Safe Transport of Radioactive Material* of the International Atomic Energy Agency; or
 - (ii) in the *United Nations Recommendations on the Transport of Dangerous Goods – Model Regulations*; or
 - (iii) by the relevant regulatory authority; and
- (b) includes:
 - (i) UN 2908, RADIOACTIVE MATERIAL, EXCEPTED PACKAGE – EMPTY PACKAGING; and
 - (ii) UN 2909, RADIOACTIVE MATERIAL, EXCEPTED PACKAGE – ARTICLES MANUFACTURED FROM NATURAL URANIUM or DEPLETED URANIUM or NATURAL THORIUM; and
 - (iii) UN 2910, RADIOACTIVE MATERIAL, EXCEPTED PACKAGE – LIMITED QUANTITY OF MATERIAL; and
 - (iv) UN 2911, RADIOACTIVE MATERIAL, EXCEPTED PACKAGE – INSTRUMENTS OR ARTICLES.]

Explosive article means an article containing one or more explosive substances.

Flash point means the lowest temperature at which a liquid gives off sufficient vapour to form a flammable mixture with air, in a closed-cup flash point test.

Food item means both:

- (a) anything that is used or represented for use as food or drink for humans or animals; and includes:
 - (i) any ingredient or nutrient or other constituent of any food or drink, whether that ingredient or nutrient or other constituent is consumed or represented for consumption by itself or when used in the preparation of or mixed with or added to any food or drink; and
 - (ii) anything that is or is intended to be mixed with or added to any food or drink; and
 - (iii) chewing gum, and any ingredient of chewing gum, and anything that is or is intended to be mixed with or added to chewing gum; and
 - (iv) medicines other than those that are dangerous goods of Division 6.1; and
- (b) any packaging known, reasonably expected to be known, intended for, or which may in the future be used to contain food, drink or any other substance intended for human or animal consumption, other than a refrigerator, oven or item of furniture.

Freight container means an article of transport equipment that is:

- (a) of a permanent character and strong enough to be suitable for repeated use; and
- (b) specially designed to facilitate the transport of goods, by one or more modes of transport, without intermediate reloading; and
- (c) designed to be secured and readily handled, having fittings for these purposes; and
- (d) approved in accordance with the *International Convention for Safe Containers (CSC)*, 1972, as amended;

but does not include vehicles, packaging, portable tanks, Intermediate Bulk Containers or unit load devices.

Gas cylinder means a rigid packaging not exceeding 500-litres water capacity that is designed as a portable pressure vessel for the storage and transport of dangerous goods of Class 2 in compressed, liquefied or dissolved form; but does not include an aerosol container.

Gross vehicle mass means either:

- (a) the maximum permitted mass of the vehicle, which includes the mass of the accessories, the crew, the passengers and load, and is, unless (b) applies, the gross vehicle mass specified (subsequent to the latest modification, if any) by the manufacturer of the vehicle; or
- (b) if a person approved for the purpose by the [Agency] determines that the gross vehicle mass of a vehicle should differ from that specified by the manufacturer, taking into account evidence on the capability of the systems and components of the vehicle, or the effects of any modification, that mass determined by that person.

Hazchem action code means the emergency action code developed by the United Kingdom Fire Service to provide emergency services personnel with information on the fire fighting medium to be used, the personnel protective equipment required, the risk of violent reaction or explosion and how to treat spillages of dangerous goods.

[Note: *Hazchem action code* can be found in [New Zealand Standard 5433:2007], *Transport of Dangerous Goods on Land*.]

HSNO enforcement officer means an enforcement officer appointed under the *Hazardous Substances and New Organisms Act 1996*.

Inner packaging means the packaging used in composite or combination packaging that is in contact with the contents and is contained in the outer packaging.

Intermediate Bulk Container (IBC) means a rigid or flexible portable packaging that is:

- (a) larger than 450-litres capacity and with a maximum capacity of:
 - (i) 3.0 m³ (3000 litres) for solids and liquids of Packing Groups II and III;
 - (ii) 1.5 m³ for solids of Packing Group 1 when packed in flexible, rigid plastics, composite, fibreboard and wooden IBCs;
 - (iii) 3.0 m³ for solids of Packing Group 1 when packed in metal IBCs;
 - (iv) 3.0 m³ for radioactive material of Class 7;
- (b) designed for mechanical handling;
- (c) resistant to the stresses produced in handling and transport, as determined by tests.

Label in relation to the land transport of dangerous goods, means the identification of the primary or subsidiary risks of dangerous goods, represented generally by colour, symbol and the class or division number, in a form similar to a diamond (a square rotated 45 degrees) appearing on or attached to a package or container of dangerous goods.

Line-haul vehicle means a vehicle or vehicle combination that:

- (a) has more than three axles and a combined gross vehicle mass of more than 20 tonnes; and
- (b) is transporting dangerous goods on a journey that includes travel outside a radius of 100 km from any point at which dangerous goods were loaded.

Load

- (a) includes part of a load; and
- (b) includes covers, ropes, ties, blocks, tackles, barrows, or other equipment or object used in the securing or containing of loads on vehicles or the loading or unloading of vehicles, whether or not any other load is on the vehicle; but
- (c) does not include animal wastes discharged from animals being carried on a vehicle at the time.

Local authority means any regional council or territorial authority within the meaning of the *Local Government Act 2002*.

Low risk biological product means a biological product or biological waste that has a low probability of containing a Category B infectious substance; and includes a biological product that is transported for routine tests or is defined as a low risk biological product in guidelines issued by the relevant regulatory authority.

Marking in relation to the land transport of dangerous goods, means the written identification of the dangerous goods appearing on or attached to a package or container of dangerous goods.

Mixed load means a load comprised of different classes or divisions of dangerous goods, or dangerous goods and other goods from which they must be segregated.

[Orientation arrows means two side-by-side arrows pointing upwards to indicate the correct orientation of a container, as specified in any of the following:

- (a) *New Zealand Standard 5433:2007, Transport of Dangerous Goods on Land*; or
- (b) *United Nations Recommendations on the Transport of Dangerous Goods – Model Regulations*; or

- (c) *International Maritime Dangerous Goods Code*; or
- (d) *Technical Instructions for Safe Transport of Dangerous Goods by Air* of the International Civil Aviation Organisation; or
- (e) *Dangerous Goods Regulations* of the International Air Transport Association.]

Outer packaging means the outer layer of a composite or combination packaging together with any absorbent materials, cushioning and any other components used to contain and protect inner receptacles or inner packaging.

Package means a substance and the packaging in which it is contained.

Packaging means any receptacle, container or other material in which a substance may be encased, covered, enclosed, contained or packed, which performs part of the containment function; but does not include a freight container, a skip, a vehicle, a pallet, a unit load device or other article of transport equipment.

Packing group means one of three groups into which dangerous goods of Class or Division 3, 4, 5.1, 6.1, 8 and 9 are divided for packaging purposes according to their degree of danger, and that are ranked in a decreasing order of danger: Packing Group “I” (high danger), Packing Group “II” (medium danger) and Packing Group “III” (low danger).

Placard means any of the following attached to the outside of vehicles, tanks, freight containers or containers for bulk quantities of dangerous goods:

- (a) an enlarged version of a label representing a class or division of dangerous goods;
- (b) a black and orange horizontally striped label displaying either the word “dangerous” or “hazardous”;
- (c) an emergency information panel.

Portable tank means a tank, designed primarily to be loaded onto a vehicle or ship, with stabilising members external to the shell, and skids, mountings or accessories to facilitate mechanical handling, and capable of being lifted when full and being loaded and discharged without the need for removal of its structural equipment; and includes:

- (a) for transport of substances of Classes 3 to 9, a multimodal portable tank having a capacity of more than 450 litres; and includes a shell fitted with service equipment and structural equipment necessary for the transport of dangerous goods;
- (b) for transport of non-refrigerated, liquefied gases of Class 2, a multimodal tank having a capacity of more than 450 litres; and includes a shell fitted with service equipment and structural equipment necessary for the transport of gases;
- (c) for transport of refrigerated liquefied gases, a thermally insulated tank having a capacity of more than 450 litres fitted with service equipment and structural equipment necessary for the transport of refrigerated liquefied gases;

but does not include a tankwagon, non-metallic tank, gas cylinder, large receptacle or Intermediate Bulk Container.

Prepacked freight container means a freight container that the driver is not involved in packing.

Prepacked vehicle means a vehicle that the driver is not involved in loading.

Primary container means a container that is in direct contact with the dangerous goods that it contains and may be either the inner packaging of a combination packaging or a sole packaging.

Primary receptacle in relation to a diagnostic specimen or biological product, means a receptacle that is in direct contact with the diagnostic specimen or biological product.

Primary risk means the most significant hazard posed by the substance and is the hazard by which the substance is classified.

Prime contractor means a person transporting their own dangerous goods, or a person who is responsible or undertakes to be responsible for the transport of dangerous goods from one place to another; but does not include a sub-contractor engaged by that person.

Proper shipping name means, in relation to dangerous goods:

- (a) the name given as the proper shipping name for a substance in:
 - (i) *[New Zealand Standard 5433:2007], Transport of Dangerous Goods on Land*;
 - (ii) *United Nations Recommendations on the Transport of Dangerous Goods – Model Regulations*;
 - (iii) *International Maritime Dangerous Goods Code*;
 - (iv) *Technical Instructions for the Safe Transport of Dangerous Goods by Air* of the International Civil Aviation Organisation;
 - (v) *Dangerous Goods Regulations* of the International Air Transport Association; and
- (b) if the proper shipping name includes the words “Not Otherwise Specified” or the letters “N.O.S.”, or if required under Special Provisions [61, 274 or 318], the proper shipping name supplemented with the technical name of the goods.

Rail vehicle

- (a) means any vehicle that runs on, or uses, a railway line (as defined in the *Railways Act 2005*); and
- (b) includes:
 - (i) a locomotive, rail carriage, rail wagon, railcar, light rail vehicle, rail maintenance vehicle (whether or not self-propelled), and any other vehicle prescribed as a rail vehicle by regulations; and
 - (ii) a vehicle designed to operate both on rails and off rails, but only when that vehicle is running on rails.

Receptacle means the innermost layer of packaging or a containment vessel that is in contact with the substance it contains; and includes any opener or fastener.

Recreational purpose means that the goods are to be used for recreation or entertainment and the use is not related to any business or occupation of the user.

Relevant regulatory authority means the New Zealand authority having statutory control over, or obligation to control, a particular class of dangerous goods. The term “regulatory authority”, “competent authority” or similar terms used in documents incorporated by reference in this Rule have the same meaning.

Retail sale includes sale by a wholesaler except when the sale is to a person who buys those goods to sell again.

Routine diagnostic specimen means a diagnostic specimen that has a low probability of containing a Category B infectious substance and is transported for routine screening tests or initial diagnosis; and includes specimens that are defined as routine diagnostic specimens in guidelines issued by the relevant regulatory authority.

Safety system means the safety system approved by the Director under *section 6D* of the *Transport Services Licensing Act 1989* or the safety system which is referred to in the approved safety case under the *Railways Act 2005*.

Salvage packaging means a packaging into which damaged, defective or leaking packages, or dangerous goods that have spilled or leaked, are placed for the purpose of transport for recovery or disposal.

Schedule of Quantities means a list of the quantities of dangerous goods on a vehicle, that is adjusted to reflect any changes to those quantities due to deliveries or collections made by the vehicle.

Segregated in relation to dangerous goods, means that specified goods must be loaded in separate freight containers or on separate vehicles or be separated horizontally by at least three metres from other specified goods on the same vehicle.

Segregation devices means containers that comply with the specified performance standards and are used to provide an additional level of protection and containment of packages complying with *section 3*.

Small Package means a package that contains dangerous goods to the maximum quantities specified in 2.4 or 2.5.

Sole packaging means packaging that does not require inner packaging to perform its containment function during transport; and includes a composite packaging.

[Special mark means any of the following marks or symbols on packaging, containers, vehicles, portable tanks or freight containers:

- (a) the elevated temperature mark; or
- (b) the environmentally hazardous substance mark; or
- (c) orientation arrows.]

Special Provisions means provisions relating to specific entries in the list of dangerous goods in the following documents that provide additional information, modify the application of classification criteria or otherwise vary requirements for transport of the particular dangerous goods:

- (a) *[New Zealand Standard 5433:2007], Transport of Dangerous Goods on Land;*
- (b) *United Nations Recommendations on the Transport of Dangerous Goods – Model Regulations;*
- (c) *International Maritime Dangerous Goods Code;*
- (d) *Technical Instructions for the Safe Transport of Dangerous Goods by Air* of the International Civil Aviation Organisation;
- (e) *Dangerous Goods Regulations* of the International Air Transport Association.

Subsidiary risk means any additional hazard posed by a substance that is less significant than the primary risk.

Tankwagon means a road or rail vehicle designed and used to transport dangerous goods in bulk in one or more tanks that are firmly affixed to its chassis.

Technical name in relation to dangerous goods, means a recognised chemical or other name currently used in scientific and technical handbooks, journals and textbooks, which clearly identifies the nature of the hazard; but does not include a trade name.

Tools-of-trade (for use as) in relation to dangerous goods, means that the goods will be used in carrying out a trade or profession.

[Transport service has the same meaning as in *section 2(1)* of the *Land Transport Act 1998*.]

UN Number means the identification number assigned to dangerous goods by the United Nations Committee of Experts on the Transport of Dangerous Goods and as published in the latest edition of:

- (a) *[New Zealand Standard 5433:2007], Transport of Dangerous Goods on Land;*
- (b) *United Nations Recommendations on the Transport of Dangerous Goods – Model Regulations;*
- (c) *International Maritime Dangerous Goods Code;*
- (d) *Technical Instructions for the Safe Transport of Dangerous Goods by Air* of the International Civil Aviation Organisation;
- (e) *Dangerous Goods Regulations* of the International Air Transport Association.

Unit load means a number of packages that are:

- (a) placed or stacked on a load board, such as a pallet, and secured by strapping, shrink-wrapping or other suitable means;

- (b) placed in a protective outer container that is additional to the packaging required to perform the containment function during transport and is used in addition to outer or sole packaging, such as a pallet box or crate;
- (c) permanently secured together in a sling.

Vehicle has the same meaning as in *section 2(1)* of the *Land Transport Act 1998*.

Vehicle Packing Certificate means a dangerous goods document that complies with the requirements specified in 5.2(7).

Vehicle combination means a towing vehicle and any trailers or other vehicles connected to it; and includes two trailers without a towing vehicle.

Table A - Properties and classification of dangerous goods for land transport

| Class | Brief description* | | | | | | | | | | | | |
|----------------------------------|--|-----------------------|--------------------------|-----------------------|---|---|--------|----|--------|--------|-----|--------------------|--------|
| CLASS 1 Explosives | <p>An explosive is any substance that, when triggered by a small amount of energy, reacts by combustion, using its own source of oxygen to produce gas at such temperature, pressure and speed that it is capable of damaging the surroundings. Pyrotechnic substances are those that produce an effect by heat, light, sound, gas, smoke or a combination of these. Class 1 (Explosives) includes explosive substances, pyrotechnic substances and explosive articles.</p> <p>1.1 Substances and articles that have a mass explosion hazard.</p> <p>1.2 Substances and articles that have a projection hazard but not a mass explosion hazard.</p> <p>1.3 Substances and articles that have a fire hazard and either a minor blast hazard or a minor projection hazard or both, but not a mass explosion hazard.</p> <p>1.4 Substances and articles that present no significant hazard.</p> <p>1.5 Very insensitive substances that have a mass explosion hazard.</p> <p>1.6 Extremely insensitive articles that do not have a mass explosion hazard.</p> | | | | | | | | | | | | |
| CLASS 2 Gases | <p>A gas is a substance that:</p> <p>(a) at 50°C has a vapour pressure greater than 300 kilopascals (absolute); or</p> <p>(b) is completely gaseous at 20°C at a pressure of 101.3 kilopascals (absolute).</p> <p>2.1 Flammable gases.</p> <p>2.2 Non-flammable, non-toxic gases.</p> <p>2.3 Toxic gases.</p> | | | | | | | | | | | | |
| CLASS 3 Flammable liquids | <p>Class 3 includes:</p> <p>(a) Flammable liquids</p> <p>These are liquids or liquids containing solids in solution or suspension that give off flammable vapour at a temperature (referred to as the flash point) of [60°C] or less, closed-cup test, or 65.6°C or less, open-cup test. Liquids transported at temperatures equal to or above their flash point are included as Class 3. Liquids with a flash point greater than 35°C that do not sustain combustion are not dangerous goods for land transport; and</p> <p>[Note: Diesel with a flash point of 60°C or less is classified as UN 1202, GAS OIL or DIESEL FUEL or HEATING OIL, LIGHT, Class 3, Packing Group III. Diesel with a flash point over 60°C is classified as UN 3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Diesel), Class 9, Packing Group III.]</p> <p>(b) Liquid desensitized explosives</p> <p>These are explosive substances that are dissolved or suspended in water, or other liquid substances, to form a homogenous liquid mixture to suppress their explosive properties. Examples include: UN 1204, UN 2059, UN 3064, UN 3343, UN 3357, UN 3379.</p> <p>Dangerous goods of Class 3 are assigned to a packing group according to the degree of danger they present. For flammable liquids, the packing group is based on flash point and initial boiling point, as shown in the table.</p> <table border="1"> <thead> <tr> <th>Packing Group</th> <th>Flash Point (closed-cup)</th> <th>Initial boiling point</th> </tr> </thead> <tbody> <tr> <td>I</td> <td>-</td> <td>≤ 35°C</td> </tr> <tr> <td>II</td> <td>< 23°C</td> <td>> 35°C</td> </tr> <tr> <td>III</td> <td>≥ 23°C ≤ [60°C]</td> <td>> 35°C</td> </tr> </tbody> </table> | Packing Group | Flash Point (closed-cup) | Initial boiling point | I | - | ≤ 35°C | II | < 23°C | > 35°C | III | ≥ 23°C ≤ [60°C] | > 35°C |
| Packing Group | Flash Point (closed-cup) | Initial boiling point | | | | | | | | | | | |
| I | - | ≤ 35°C | | | | | | | | | | | |
| II | < 23°C | > 35°C | | | | | | | | | | | |
| III | ≥ 23°C ≤ [60°C] | > 35°C | | | | | | | | | | | |
| CLASS 4 | | | | | | | | | | | | | |

| Class | Brief description* |
|---|---|
| <p>Flammable solids</p> <p>Substances liable to spontaneous combustion</p> <p>Substances that, in contact with water, emit flammable gases</p> | <p>4.1 Flammable solids.</p> <p>These are solids that:</p> <p>(a) under normal conditions of transport are readily combustible or may cause or contribute to fire through friction; or</p> <p>(b) are self-reactive ... substances (including liquids) that are liable to undergo a strong exothermic reaction; or</p> <p>(c) are solid desensitized explosives that may explode if not diluted sufficiently.</p> <p>4.2 Substances liable to spontaneous combustion.</p> <p>Liquids or solids that are liable to spontaneous heating under normal conditions of transport, or to heating when in contact with air and then being liable to catch fire.</p> <p>4.3 Substances that, in contact with water, emit flammable gases (dangerous when wet).</p> <p>Substances that, by interaction with water, are liable to become spontaneously flammable or to give off flammable gases in dangerous quantities.</p> <p>Dangerous goods of all divisions of Class 4[, except self-reactive substances in Division 4.1,] are assigned to a packing group according to the degree of danger they present:</p> <p>Packing Group I (high danger);</p> <p>Packing Group II (medium danger);</p> <p>Packing Group III (low danger).</p> <p>[Self-reactive substances are classified into seven types according to the degree of danger they present and the quantity per package. The types of self-reactive substances range from Type A, which is too dangerous for transport, to Type G, which is not subject to the requirements of this Rule for transport of dangerous goods in Division 4.1.]</p> |
| <p>CLASS 5</p> <p>Oxidizing substances and organic peroxides</p> | <p>5.1 Oxidizing substances.</p> <p>Substances that are not necessarily combustible, but may cause or contribute to the combustion of other material, usually by yielding oxygen, chlorine or fluorine.</p> <p>Dangerous goods of Division 5.1 are assigned to a packing group according to the degree of danger they present:</p> <p>Packing Group I (high danger);</p> <p>Packing Group II (medium danger);</p> <p>Packing Group III (low danger).</p> <p>5.2 Organic peroxides.</p> <p>Organic substances that contain the bivalent -O-O-structure and may be considered to be derivatives of hydrogen peroxide, in which one or both of the hydrogen atoms have been replaced by organic radicals.</p> <p>Organic peroxides are thermally unstable substances that may undergo exothermic self-accelerating decomposition and may also have one or more of the following properties:</p> <p>(a) be liable to explosive decomposition;</p> <p>(b) burn rapidly;</p> <p>(c) be sensitive to impact or friction;</p> <p>(d) react dangerously with other substances;</p> <p>(e) cause damage to the eyes.</p> <p>[Organic peroxides are classified into seven types according to the degree of danger they present and the quantity per package. The types of organic peroxide range from Type A, which is too dangerous for</p> |

| Class | Brief description* |
|--|--|
| | transport, to Type G, which is not subject to the requirements of this Rule for transport of dangerous goods in Division 5.2.] |
| CLASS 6 Toxic (poisonous) and infectious substances | <p>6.1 Toxic (poisonous) substances.</p> <p>These are substances liable to cause death, serious injury or harm to human health if swallowed, inhaled or by skin contact.</p> <p>Dangerous goods of Division 6.1 are assigned to a packing group according to the degree of danger they present:</p> <p>Packing Group I (high danger);</p> <p>Packing Group II (medium danger);</p> <p>Packing Group III (low danger).</p> <p>6.2 Infectious substances.</p> <p>Substances known, or reasonably expected, to contain pathogens. Pathogens are micro-organisms (including bacteria, viruses, rickettsiae, parasites and fungi) and other agents, such as prions, which can cause disease in humans or animals.</p> <p>Category A infectious substances are those that are transported in a form that is capable of causing permanent disability, life-threatening or fatal disease in humans or animals that are exposed to them.</p> <p>Category B infectious substances are those that do not meet the criteria for inclusion in Category A.</p> <p>Classification of infectious substances may be determined according to guidelines issued by the relevant regulatory authority.</p> <p>Dangerous goods of Division 6.2 are not assigned to a packing group except for:</p> <p>UN 3291, CLINICAL WASTE, UNSPECIFIED, N.O.S. or (BIO) MEDICAL WASTE, N.O.S. or REGULATED MEDICAL WASTE, N.O.S. which is assigned to Packing Group II (medium danger).</p> |
| CLASS 7 Radioactive material | <p>Radioactive material is any material that spontaneously emits significant radiation and is classified in the <i>Regulations for the Safe Transport of Radioactive Material</i> of the International Atomic Energy Agency or as determined by the relevant regulatory authority.</p> |
| CLASS 8 Corrosive substances | <p>These are substances that, by chemical action, will cause severe damage when in contact with living tissue or will damage or destroy other goods or the vehicle in which they are transported if they leak from their packaging.</p> <p>Dangerous goods of Class 8 are assigned to a packing group according to the degree of danger they present:</p> <p>Packing Group I (high danger);</p> <p>Packing Group II (medium danger);</p> <p>Packing Group III (low danger).</p> |
| CLASS 9 Miscellaneous dangerous substances and articles | <p>Any substance or article presenting a danger for transport and that is not covered by other classes.</p> <p>Class 9 includes:</p> <p>(a) environmentally hazardous substances, which [includes diesel with a flash point over 60°C from 1 January 2011, and other] substances and wastes which are pollutant to the aquatic environment;</p> <p>[Note: Diesel with a flash point of 60°C or less is classified as UN 1202, GAS OIL or DIESEL FUEL or HEATING OIL, LIGHT, Class 3, Packing Group III. Diesel with a flash point over 60°C is classified as UN 3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Diesel), Class 9, Packing Group III.]</p> <p>(b) substances transported at temperatures of 100°C or higher in a liquid state or 240°C or higher in a solid state;</p> <p>(c) genetically modified micro-organisms and genetically modified organisms which are not infectious substances, but which are capable of altering animals, plants or microbiological substances in a way not normally the result of natural reproduction.</p> <p>Dangerous goods of Class 9 are assigned to a packing group according to the degree of danger they present:</p> <p>Packing Group I (high danger);</p> <p>Packing Group II (medium danger);</p> <p>Packing Group III (low danger).</p> |

| Class | Brief description* |
|---|--------------------|
| * Subject to classification by the relevant regulatory authority, detailed descriptions of the properties and classification of dangerous goods for transport on land are contained in the following documents: | |
| (a) [New Zealand Standard 5433:2007], Transport of Dangerous Goods on Land; | |
| (b) The United Nations Recommendations on the Transport of Dangerous Goods – Model Regulations; | |
| (c) The International Maritime Dangerous Goods Code; | |
| (d) Technical Instructions for the Safe Transport of Dangerous Goods by Air of the International Civil Aviation Organisation; | |
| (e) Dangerous Goods Regulations of the International Air Transport Association. | |

Part 3
Schedules

Schedule 1

Quantity limits for dangerous goods transported for domestic or recreational purposes, for use as tools-of-trade, for agricultural use or for a commercial purpose, but not transported for hire or direct reward

| Class or division | Class or division name or product | Packing group | Maximum quantity* |
|-------------------|--|--------------------|--|
| 1 | Explosives (except UN0012, CARTRIDGES, SMALL ARMS) | - | 50 kg subject to other New Zealand legislation |
| 1.4S | UN 0012, CARTRIDGES, SMALL ARMS | - | 250 kg |
| 2.1 | Flammable gases | - | 250 litres water capacity |
| 2.2 | Non-flammable, non-toxic gases; cryogenic liquids (except UN 1977, NITROGEN, REFRIGERATED LIQUID) | - | 25 litres water capacity |
| | UN 1977, NITROGEN, REFRIGERATED LIQUID | - | [100 litres] |
| | Non-flammable, non-toxic gases (except cryogenic liquids) | - | 250 litres water capacity |
| 2.3 | Toxic gases (except those listed below) | - | 50 litres water capacity |
| | UN 1026, CYANOGEN; UN 1067, NITROGEN DIOXIDE; UN 1076, PHOSGENE; UN 1589, CYANOGEN CHLORIDE, STABILIZED | - | 1 litre water capacity |
| [3] | [Flammable liquids [Note: Petrol is classified as UN 1203, PETROL, Class 3, Packing Group II. Diesel with a flash point of 60°C or less is classified as UN 1202, GAS OIL or DIESEL FUEL or HEATING OIL, LIGHT, Class 3, Packing Group III. Diesel with a flash point over 60°C is classified as UN 3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, | [I] [II or III] | [5 litres] [250 litres] |

| Class or division | Class or division name or product | Packing group | Maximum quantity* |
|-------------------|---|---------------|--|
| | N.O.S. (Diesel), Class 9, Packing Group III.]] | | |
| 4.1 | Flammable solids | I | 5 kg |
| | | II | 50 kg |
| | | III | 250 kg |
| 4.2 | Spontaneously combustible substances | I | No quantity permitted |
| | Spontaneously combustible substances (Packaged as Dangerous Goods in Limited Quantities or Consumer Commodities only) | II or III | 50 kg |
| [4.3] | [Dangerous when wet (except UN 1397, ALUMINIUM PHOSPHIDE; UN 1402, CALCIUM CARBIDE and UN 2011, MAGNESIUM PHOSPHIDE)] | [I] | [No quantity permitted] |
| | [UN 1397, ALUMINIUM PHOSPHIDE; UN 1402, CALCIUM CARBIDE and UN 2011, MAGNESIUM PHOSPHIDE] | [I] | [5 kg] |
| | [Dangerous when wet (Packaged as Dangerous Goods in Limited Quantities or Consumer Commodities only)] | [II or III] | [50 kg] |
| 5.1 | Oxidizing substances | I | 5 kg (solids, powders, etc); or 5 litres (liquids) |
| | | II | 50 kg (solids, powders, etc); or 50 litres (liquids) |
| | | III | 250 kg (solids, powders, etc); or 250 litres (liquids) |
| 5.2 | Organic peroxides Type B (Packaged as Dangerous Goods in Limited Quantities or Consumer Commodities only) | - | 5 kg (solids, powders, etc); or 5 litres (liquids) |
| | Organic peroxides Type C, D, E or F (As hardener for an organic resin or packaged as Dangerous Goods in Limited Quantities or Consumer Commodities) | - | 10 kg (solids, powders, etc); or 10 litres (liquids) |
| 6.1 | Toxic substances | I | 5 kg (solids, powders, etc); or 5 litres (liquids) |
| | | II | 50 kg (solids, powders, etc); or 50 litres (liquids) |
| | | III | 250 kg (solids, powders, etc); or 250 litres (liquids) |

| Class or division | Class or division name or product | Packing group | Maximum quantity* |
|-------------------|--|---------------|--|
| 6.2 | [Infectious substances Category A] | [-] | [5 kg (solids, powders, etc); or 5 litres (liquids)] |
| | [Infectious substances Category B (except portable toilet effluent, septic tank wastes and sewage screening sludge)] | [-] | [50 kg (solids, powders, etc); or 50 litres (liquids)] |
| | [UN 3291, CLINICAL WASTE, UNSPECIFIED, N.O.S. or (BIO) MEDICAL WASTE, N.O.S.] | [III] | [50 kg (solids, powders, etc); or 50 litres (liquids)] |
| | [Portable toilet effluent, septic tank wastes and sewage screening sludge [, classified as infectious substances Category B]]] | [-] | [250 kg, 250 litres or two portable toilets, whichever is the greater quantity] |
| 7 | Radioactive material | - | As permitted by <i>Regulations for the Safe Transport of Radioactive Material</i> of the International Atomic Energy Agency or the requirements of the relevant regulatory authority |
| 8 | Corrosive substances (except batteries listed below) | I | 5 kg (solids, powders, etc); or 5 litres (liquids) |
| | | II | 50 kg (solids, powders, etc); or 50 litres (liquids) |
| | | III | 250 kg (solids, powders, etc); or 250 litres (liquids) |
| | UN 2794, BATTERIES, WET, FILLED WITH ACID, electric storage UN 2795, BATTERIES, WET, FILLED WITH ALKALI, electric storage UN 2800, BATTERIES, WET, NON-SPILLABLE, electric storage | - | 250 litres (measured by the volume of the battery case) |
| | UN 3028, BATTERIES, DRY, CONTAINING POTASSIUM HYDROXIDE SOLID, electric storage | - | 250 kg |
| [9] | [Miscellaneous dangerous substances and articles (except those listed below)] | [I] | [5 kg (solids, powders, etc); or 5 litres (liquids)] |
| | | [II] | [50 kg (solids, powders, etc); or 50 litres (liquids)] |
| | | [III] | [250 kg (solids, powders, etc); or 250 litres (liquids)] |
| | [Substances, other than diesel, that are toxic to the aquatic | [III] | [1000 kg (solids, powders, etc); or 1000 litres (liquids)] |

| Class or division | Class or division name or product | Packing group | Maximum quantity* |
|--|---|---------------|-------------------|
| | environment (UN 3077 or UN 3082)] | | |
| | [Diesel with a flash point over 60°C, classified as UN 3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Diesel) †] | [III] | [2000 litres] |
| [Mixed loads] | <p>[The maximum quantity for a mixed load is an aggregate amount of 500, using the following units: kilograms (solids, powders, etc including the weight of the packaging), litres (liquids), litres water capacity (gases).]</p> <p>[The quantity of Class 9 diesel, or Class 9 substances that are toxic to the aquatic environment, is in addition to the maximum quantity for a mixed load.]</p> <p>[The maximum quantity for a mixed load is exceeded if the quantity for any class or division in the load exceeds the limit specified for that class or division.]</p> | | |
| [* The maximum quantity is determined by the actual quantity of dangerous goods carried, measured in:] | | | |
| [• kilograms (including the weight of the packaging) for solids, powders, etc;] | | | |
| [• litres for liquids;] | | | |
| [• litres water capacity of the cylinder or container for gases, except for cryogenic liquids (such as UN 1977, NITROGEN, REFRIGERATED LIQUID) where the actual quantity can easily be measured with a dip-stick or similar measuring device.] | | | |
| [† Diesel with a flash point over 60°C, classified as UN 3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Diesel), Class 9, is not subject to this Rule before 1 January 2011. Diesel with a flash point of 60°C or less is classified as UN 1202, GAS OIL or DIESEL FUEL or HEATING OIL, LIGHT, Class 3, Packing Group III and is subject to this Rule (see Class 3 in Table A and in this Schedule)] | | | |

Schedule 2
Dangerous Goods in Limited Quantities and Consumer Commodities

[Ref 2.3]

| Class or division or product | Packing group | Physical state | Maximum quantity per inner packaging |
|--|---------------|----------------|--|
| Dangerous goods of all classes in Packing Group I, unless a quantity is specified for the particular dangerous goods in this Schedule | I | - | 0 |
| 1 | - | - | 0 |
| 2 – with a flammable, corrosive, oxidizing or toxic risk, unless a quantity is specified for the particular dangerous goods in this schedule | - | - | 0 |
| 2.1 – UN 1057, LIGHTERS or LIGHTER REFILLS containing flammable gas | - | gas | 10 g per lighter; or 65 g per lighter refill |
| 2.1, 2.2 – UN 1950, AEROSOLS (containing toxic substances) or UN 2037, GAS CARTRIDGES (containing toxic substances) | - | gas | 120 ml water capacity |
| 2.1, 2.2 – UN 1950, AEROSOLS (not containing toxic substances) or UN 2037, GAS CARTRIDGES (not containing toxic substances) | - | gas | 1 litre water capacity |
| 2.1 – UN 3478, FUEL CELL CARTRIDGES or FUEL CELL CARTRIDGES CONTAINED IN EQUIPMENT or FUEL CELL CARTRIDGES PACKED WITH EQUIPMENT, containing liquefied flammable gas | - | gas | 120 ml water capacity |

| Class or division or product | Packing group | Physical state | Maximum quantity per inner packaging |
|--|---------------|----------------|--------------------------------------|
| 2.1 – UN 3479, FUEL CELL CARTRIDGES or FUEL CELL CARTRIDGES CONTAINED IN EQUIPMENT or FUEL CELL CARTRIDGES PACKED WITH EQUIPMENT, containing hydrogen in metal hydride | - | gas | 120 ml water capacity |
| 2.2 – excluding gases that have an oxidizing risk and gases for which '0' is specified for the maximum quantity per inner packaging in this schedule | - | gas | 500 ml water capacity |
| 2.2 – UN 2857, REFRIGERATING MACHINES containing non-flammable, non-toxic gases or ammonia solutions (UN 2672) | - | - | 0 |
| 2.3 | - | - | 0 |
| 3 – unless a quantity is specified for the particular dangerous goods in this Schedule | I | - | 0 |
| 3 – excluding dangerous goods for which a different quantity is specified for the maximum quantity per inner packaging in this schedule | II | liquid | 1 litre |
| 3 – excluding dangerous goods for which '0' is specified for the maximum quantity per inner packaging in this schedule | III | liquid | 5 litres |
| 3 – UN 1133, ADHESIVES flammable liquid | I | liquid | 500 ml |
| | II | liquid | 5 litres |
| | III | liquid | 5 litres |
| 3 – UN 1139, COATING SOLUTION (includes surface treatments or coatings used for industrial or other purposes such as vehicle undercoating, drum or barrel lining) | I | liquid | 500 ml |
| | II | liquid | 5 litres |
| | III | liquid | 5 litres |
| 3 – UN 1162, DIMETHYLDICHLOROSILANE | II | - | 0 |
| 3 – UN 1169, EXTRACTS, AROMATIC, LIQUID | II | liquid | 5 litres |
| | III | liquid | 5 litres |
| 3 – UN 1196, ETHYLTRICHLOROSILANE | II | - | 0 |
| 3 – UN 1197, EXTRACTS, FLAVOURING, LIQUID | II | liquid | 5 litres |
| | III | liquid | 5 litres |
| 3 – UN 1210, PRINTING INK, flammable or PRINTING INK RELATED MATERIAL (including printing ink thinning or reducing compound), flammable | I | liquid | 500 ml |
| | II | liquid | 5 litres |
| | III | liquid | 5 litres |
| 3 – UN 1250, METHYLTRICHLOROSILANE | II | - | 0 |
| 3 – UN 1263, PAINT (including paint, lacquer, enamel, stain, shellac, varnish, polish, liquid filler, and liquid lacquer base) or PAINT RELATED MATERIAL (including paint thinning or reducing compound) | I | liquid | 500 ml |
| | II | liquid | 5 litres |
| | III | liquid | 5 litres |
| 3 – UN 1266, PERFUMERY PRODUCTS with flammable solvents | II | liquid | 5 litres |
| | III | liquid | 5 litres |
| 3 – UN 1267, PETROLEUM CRUDE OIL | I | liquid | 500 ml |
| | II | liquid | 1 litre |

| Class or division or product | Packing group | Physical state | Maximum quantity per inner packaging |
|---|---------------|----------------|--------------------------------------|
| | III | liquid | 5 litres |
| 3 – UN 1268, PETROLEUM DISTILLATES, N.O.S., or PETROLEUM PRODUCTS, N.O.S. | I | liquid | 500 ml |
| | II | liquid | 1 litre |
| | III | liquid | 5 litres |
| 3 – UN 1286, ROSIN OIL | II | liquid | 5 litres |
| | III | liquid | 5 litres |
| 3 – UN 1287, RUBBER SOLUTION | II | liquid | 5 litres |
| | III | liquid | 5 litres |
| 3 – UN 1298, TRIMETHYLCHLOROSILANE | II | - | 0 |
| 3 – UN 1305, VINYLTRICHLOROSILANE | II | - | 0 |
| 3 – UN 1306, WOOD PRESERVATIVES, LIQUID | II | liquid | 5 litres |
| | III | liquid | 5 litres |
| 3 – UN 1863, FUEL, AVIATION, TURBINE ENGINE | I | liquid | 500 ml |
| | II | liquid | 1 litre |
| | III | liquid | 5 litres |
| 3 – UN 1866, RESIN SOLUTION, flammable | I | liquid | 500 ml |
| | II | liquid | 5 litres |
| | III | liquid | 5 litres |
| 3 – UN 1999, TARS, LIQUID, including road oils and cutback bitumens | II | liquid | 5 litres |
| | III | liquid | 5 litres |
| 3 – UN 2985, CHLOROSILANES, FLAMMABLE, CORROSIVE, N.O.S. | II | - | 0 |
| 3 – UN 3064, NITROGLYCERIN, SOLUTION IN ALCOHOL with more than 1% but not more than 5% nitroglycerin | II | - | 0 |
| 3 – UN 3065, ALCOHOLIC BEVERAGES, with more than 70% alcohol by volume | II | liquid | 5 litres * |
| 3 – UN 3065, ALCOHOLIC BEVERAGES, with more than 24% but not more than 70% alcohol by volume | III | liquid | 5 litres Δ |
| 3 – UN 3256, ELEVATED TEMPERATURE LIQUID, FLAMMABLE, N.O.S. with flash point above 60°C, at or above its flash point | III | - | 0 |
| 3 – UN 3269, POLYESTER RESIN KIT | II | liquid | 5 litres |
| | III | liquid | 5 litres |
| 3 – UN 3295, HYDROCARBONS, LIQUID, N.O.S. | I | liquid | 500 ml |
| | II | liquid | 1 litre |
| | III | liquid | 5 litres |
| 3 – UN 3343, NITROGLYCERIN MIXTURE, DESENSITIZED, LIQUID, FLAMMABLE, N.O.S. with not more than 30% nitroglycerin, by mass | - | - | 0 |
| 3 – UN 3357, NITROGLYCERIN MIXTURE, DESENSITIZED, LIQUID, N.O.S. with not more than 30% nitroglycerin, by mass | II | - | 0 |

| Class or division or product | Packing group | Physical state | Maximum quantity per inner packaging |
|--|---------------|----------------|--------------------------------------|
| 3 – UN 3473, FUEL CELL CARTRIDGES or FUEL CELL CARTRIDGES CONTAINED IN EQUIPMENT or FUEL CELL CARTRIDGES PACKED WITH EQUIPMENT, containing flammable liquids | - | liquid | 1 litre |
| 4.1 – self-reactive substances, temperature controlled substances or desensitized explosives, unless a quantity is specified for the particular dangerous goods in this schedule | - | - | 0 |
| 4.1 | I | - | 0 |
| 4.1 – excluding desensitized explosives and excluding dangerous goods for which '0' is specified for the maximum quantity per inner packaging in this Schedule | II | solid | 1 kg |
| 4.1 – excluding dangerous goods for which '0' is specified for the maximum quantity per inner packaging in this Schedule | III | solid | 5 kg |
| 4.1 – UN 1327, HAY, STRAW or BHUSA | - | Solid | 3 kg |
| 4.1 – UN 2304, NAPHTHALENE, MOLTEN | III | - | 0 |
| 4.1 – UN 2448, SULPHUR, MOLTEN | III | - | 0 |
| 4.1 – UN 3176, FLAMMABLE SOLID, ORGANIC, MOLTEN, N.O.S. | II or III | - | 0 |
| 4.1 – UN 3221, SELF-REACTIVE LIQUID TYPE B | - | liquid | 25 ml |
| 4.1 – UN 3222, SELF-REACTIVE SOLID TYPE B | - | solid | 100 g |
| 4.1 – UN 3223, SELF-REACTIVE LIQUID TYPE C | - | liquid | 25 ml |
| 4.1 – UN 3224, SELF-REACTIVE SOLID TYPE C | - | solid | 100 g |
| 4.1 – UN 3225, SELF-REACTIVE LIQUID TYPE D | - | liquid | 125 ml |
| 4.1 – UN 3226, SELF-REACTIVE SOLID TYPE D | - | solid | 500 g |
| 4.1 – UN 3227, SELF-REACTIVE LIQUID TYPE E | - | liquid | 125 ml |
| 4.1 – UN 3228, SELF-REACTIVE SOLID TYPE E | - | solid | 500 g |
| 4.1 – UN 3229, SELF-REACTIVE LIQUID TYPE F | - | liquid | 125 ml |
| 4.1 – UN 3230, SELF-REACTIVE SOLID TYPE F | - | solid | 500 g |
| 4.1 – UN 3360, FIBRES, VEGETABLE, DRY § | - | - | 0 |
| 4.2 – unless a quantity is specified for the particular dangerous goods in this Schedule | - | - | 0 |
| 4.2 – UN 3400, ORGANOMETALLIC SUBSTANCE, SOLID, SELF-HEATING | II | solid | 500 g |
| | III | solid | 1 kg |
| 4.3 | I | - | 0 |
| 4.3 – excluding dangerous goods for which '0' is specified for the maximum quantity per inner packaging in this Schedule | II | liquid | 500 ml |

| Class or division or product | Packing group | Physical state | Maximum quantity per inner packaging |
|--|----------------------|-----------------------|---|
| 4.3 – excluding dangerous goods for which ‘0’ is specified for the maximum quantity per inner packaging in this Schedule | II | solid | 500 g |
| 4.3 – excluding dangerous goods for which ‘0’ is specified for the maximum quantity per inner packaging in this Schedule | III | liquid | 1 litre |
| 4.3 – excluding dangerous goods for which ‘0’ is specified for the maximum quantity per inner packaging in this Schedule | III | solid | 1 kg |
| 4.3 – UN 1418, MAGNESIUM POWDER or MAGNESIUM ALLOYS POWDER | II or III | - | 0 |
| 4.3 – UN 1436, ZINC POWDER or ZINC DUST | II or III | - | 0 |
| 4.3 – UN 3135, WATER REACTIVE SOLID, SELF-HEATING, N.O.S. | II or III | - | 0 |
| 4.3 – UN 3209, METALLIC SUBSTANCE, WATER-REACTIVE, SELF-HEATING, N.O.S. | II or III | - | 0 |
| 4.3 – UN 3292, BATTERIES, CONTAINING SODIUM, or CELLS, CONTAINING SODIUM | II | - | 0 |
| 4.3 – UN 3476, FUEL CELL CARTRIDGES or FUEL CELL CARTRIDGES CONTAINED IN EQUIPMENT or FUEL CELL CARTRIDGES PACKED WITH EQUIPMENT, containing water-reactive substances | - | liquid or solid | 500 ml or 500 g |
| 5.1 | I | - | 0 |
| 5.1 – excluding dangerous goods for which ‘0’ is specified for the maximum quantity per inner packaging in this Schedule | II | liquid | 1 litre |
| 5.1 – excluding dangerous goods for which ‘0’ is specified for the maximum quantity per inner packaging in this Schedule | II | solid | 1 kg |
| 5.1 | III | liquid | 5 litres |
| 5.1 | III | solid | 5 kg |
| 5.1 – UN 2426, AMMONIUM NITRATE, LIQUID (hot concentrated solution) | - | - | 0 |
| 5.1 – UN 3100, OXIDIZING SOLID, SELF-HEATING, N.O.S. | II | - | 0 |
| 5.1 – UN 3356, OXYGEN GENERATOR, CHEMICAL | II | - | 0 |
| 5.1 – UN 3375, AMMONIUM NITRATE EMULSION or SUSPENSION or GEL, intermediate for blasting explosives | II | - | 0 |
| 5.2 – unless a quantity is specified for the particular dangerous goods in this Schedule | - | - | 0 |
| 5.2 – UN 3101, ORGANIC PEROXIDE TYPE B, LIQUID (not requiring temperature control) | - | liquid | 25 ml |
| 5.2 – UN 3102, ORGANIC PEROXIDE TYPE B, SOLID (not requiring temperature control) | - | solid | 100 g |

| Class or division or product | Packing group | Physical state | Maximum quantity per inner packaging |
|--|---------------|----------------|--------------------------------------|
| 5.2 – UN 3103, ORGANIC PEROXIDE TYPE C, LIQUID (not requiring temperature control) | - | liquid | 25 ml |
| 5.2 – UN 3104, ORGANIC PEROXIDE TYPE C, SOLID (not requiring temperature control) | - | solid | 100 g |
| 5.2 – UN 3105, ORGANIC PEROXIDE TYPE D, LIQUID (not requiring temperature control) | - | liquid | 125 ml |
| 5.2 – UN 3106, ORGANIC PEROXIDE TYPE D, SOLID (not requiring temperature control) | - | solid | 500 g |
| 5.2 – UN 3107, ORGANIC PEROXIDE TYPE E, LIQUID (not requiring temperature control) | - | liquid | 125 ml |
| 5.2 – UN 3108, ORGANIC PEROXIDE TYPE E, SOLID (not requiring temperature control) | - | solid | 500 g |
| 5.2 – UN 3109, ORGANIC PEROXIDE TYPE F, LIQUID (not requiring temperature control) | - | liquid | 125 ml |
| 5.2 – UN 3110, ORGANIC PEROXIDE TYPE F, SOLID (not requiring temperature control) | - | solid | 500 g |
| 6.1 | I | - | 0 |
| 6.1 – excluding dangerous goods for which '0' is specified for the maximum quantity per inner packaging in this Schedule | II | liquid | 100 ml |
| 6.1 – excluding dangerous goods for which '0' is specified for the maximum quantity per inner packaging in this Schedule | II | solid | 500 g |
| 6.1 | III | liquid | 5 litres |
| 6.1 | III | solid | 5 kg |
| 6.1 – UN 1569, BROMOACETONE | II | - | 0 |
| 6.1 – UN 1600, DINITROTOLUENES, MOLTEN | II | - | 0 |
| 6.1 – UN 1693, TEAR GAS SUBSTANCE, LIQUID, N.O.S. | II | - | 0 |
| 6.1 – UN 1697, CHLOROACETOPHENONE, SOLID | II | - | 0 |
| 6.1 – UN 1700, TEAR GAS CANDLES | II | - | 0 |
| 6.1 – UN 1701, XYLYL BROMIDE, LIQUID | II | - | 0 |
| 6.1 – UN 1737, BENZYL BROMIDE | II | - | 0 |
| 6.1 – UN 1738, BENZYL CHLORIDE | II | - | 0 |
| 6.1 – UN 2016, AMMUNITION, TOXIC NON-EXPLOSIVE without burster or expelling charge, non-fuzed | II | - | 0 |
| 6.1 – UN 2017, AMMUNITION, TEAR-PRODUCING, NON-EXPLOSIVE without burster or expelling charge, non-fuzed | II | - | 0 |
| 6.1 – UN 2312, PHENOL, MOLTEN | II | - | 0 |
| 6.1 – UN 3124, TOXIC SOLID, SELF-HEATING, N.O.S. | II | - | 0 |
| 6.1 – UN 3250, CHLOROACETIC ACID, MOLTEN | II | - | 0 |

| Class or division or product | Packing group | Physical state | Maximum quantity per inner packaging |
|--|---------------|----------------|--------------------------------------|
| 6.1 – UN 3361, CHLOROSILANES, TOXIC, CORROSIVE, N.O.S. | II | - | 0 |
| 6.1 – UN 3362, CHLOROSILANES, TOXIC, CORROSIVE, FLAMMABLE, N.O.S. | II | - | 0 |
| 6.1 – UN 3416, CHLOROACETOPHENONE, LIQUID | II | - | 0 |
| 6.1 – UN 3417, XYLYL BROMIDE, SOLID | II | - | 0 |
| 6.1 - UN 3448, TEAR GAS SUBSTANCE, SOLID, N.O.S. | II | - | 0 |
| 6.2 | - | - | 0 |
| 7 | - | - | 0 |
| 8 | I | - | 0 |
| 8 – excluding dangerous goods for which ‘0’ is specified for the maximum quantity per inner packaging in this Schedule | II | liquid | 1 litre ‡ |
| 8 – excluding dangerous goods for which ‘0’ is specified for the maximum quantity per inner packaging in this Schedule | II | solid | 1 kg |
| 8 – excluding dangerous goods for which ‘0’ is specified for the maximum quantity per inner packaging in this Schedule | III | liquid | 5 litres |
| 8 – excluding dangerous goods for which ‘0’ is specified for the maximum quantity per inner packaging in this Schedule | III | solid | 5 kg |
| 8 – UN 1724, ALLYLTRICHLOROSILANE, STABILIZED | II | - | 0 |
| 8 – UN 1728, AMYLTRICHLOROSILANE | II | - | 0 |
| 8 – UN 1747, BUTYLTRICHLOROSILANE | II | - | 0 |
| 8 – UN 1753, CHLOROPHENYL-TRICHLOROSILANE | II | - | 0 |
| 8 – UN 1762, CYCLOHEXENYL-TRICHLOROSILANE | II | - | 0 |
| 8 – UN 1763, CYCLOHEXYLTRICHLOROSILANE | II | - | 0 |
| 8 – UN 1766, DICHLOROPHENYL-TRICHLOROSILANE | II | - | 0 |
| 8 – UN 1767, DIETHYLDICHLOROSILANE | II | - | 0 |
| 8 – UN 1769, DIPHENYLDICHLOROSILANE | II | - | 0 |
| 8 – UN 1771, DODECYLTRICHLOROSILANE | II | - | 0 |
| 8 – UN 1781, HEXADECYLTRICHLOROSILANE | II | - | 0 |
| 8 – UN 1784, HEXYLTRICHLOROSILANE | II | - | 0 |
| 8 – UN 1799, NONYLTRICHLOROSILANE | II | - | 0 |
| 8 – UN 1800, OCTADECYLTRICHLOROSILANE | II | - | 0 |
| 8 – UN 1801, OCTYLTRICHLOROSILANE | II | - | 0 |
| 8 – UN 1804, PHENYLTRICHLOROSILANE | II | - | 0 |

| Class or division or product | Packing group | Physical state | Maximum quantity per inner packaging |
|---|---------------|-----------------|--|
| 8 – UN 1810, PHOSPHORUS OXYCHLORIDE | II | - | 0 |
| 8 – UN 1816, PROPYLTRICHLOROSILANE | II | - | 0 |
| 8 – UN 1818, SILICON TETRACHLORIDE | II | | 0 |
| 8 – UN 1838, TITANIUM TETRACHLORIDE | II | - | 0 |
| 8 – UN 2028, BOMBS, SMOKE, NON-EXPLOSIVE with corrosive liquid, without initiating device | II | - | 0 |
| 8 – UN 2215, MALEIC ANHYDRIDE, MOLTEN | III | - | 0 |
| 8 – UN 2434, DIBENZYL DICHLOROSILANE | II | - | 0 |
| 8 – UN 2435, ETHYLPHENYL DICHLOROSILANE | II | - | 0 |
| 8 – UN 2437, METHYLPHENYL DICHLOROSILANE | II | - | 0 |
| 8 – UN 2442, TRICHLOROACETYL CHLORIDE | II | - | 0 |
| 8 – UN 2576, PHOSPHORUS OXYBROMIDE, MOLTEN | II | - | 0 |
| 8 – UN 2794, BATTERIES, WET, FILLED WITH ACID, electric storage | - | - | 1 litre (measured by the volume of the battery case) |
| 8 – UN 2795, BATTERIES, WET, FILLED WITH ALKALI, electric storage | - | - | 1 litre (measured by the volume of the battery case) |
| 8 – UN 2800, BATTERIES, WET, NON-SPILLABLE, electric storage | - | - | 1 litre (measured by the volume of the battery case) |
| 8 – UN 2826, ETHYL CHLOROTHIOFORMATE | II | - | 0 |
| 8 – UN 2986, CHLOROSILANES, CORROSIVE, FLAMMABLE, N.O.S. | II | - | 0 |
| 8 – UN 2987, CHLOROSILANES, CORROSIVE N.O.S. | II | - | 0 |
| 8 – UN 3028, BATTERIES, DRY, CONTAINING POTASSIUM HYDROXIDE SOLID, electric storage | - | - | 2 kg |
| 8 – UN 3301, CORROSIVE LIQUID, SELF-HEATING, N.O.S. | II | - | 0 |
| 8 – UN 3477, FUEL CELL CARTRIDGES or FUEL CELL CARTRIDGES CONTAINED IN EQUIPMENT or FUEL CELL CARTRIDGES PACKED WITH EQUIPMENT, containing corrosive substances | - | liquid or solid | 1 litre or 1 kg |
| 9 – unless a quantity is specified for the particular dangerous goods in this Schedule | II | | 0 |
| 9 – excluding dangerous goods for which '0' is specified for the maximum quantity per inner packaging in this Schedule | III | liquid | 5 litres |
| 9 – excluding dangerous goods for which '0' is specified for the maximum quantity per inner packaging in this Schedule | III | solid | 5 kg |
| 9 – UN 1845, CARBON DIOXIDE, SOLID (DRY ICE) | III | - | 0 |

| Class or division or product | Packing group | Physical state | Maximum quantity per inner packaging |
|---|----------------------|-----------------------|---|
| 9 – UN 2212, BLUE ASBESTOS (crocidolite) or BROWN ASBESTOS (amosite, myosorite) | II | solid | 1 kg |
| 9 – UN 2216, FISH MEAL (FISH SCRAP), STABILIZED § | III | - | 0 |
| 9 – UN 2315, POLYCHLORINATED BIPHENYLS, LIQUID | II | liquid | 1 litre |
| 9 – UN 2590, WHITE ASBESTOS (chrysotile, actinolite, anthophyllite, tremolite) | III | - | 0 |
| 9 – UN 2807, MAGNETIZED MATERIAL † | III | - | 0 |
| 9 – UN 2969, CASTOR BEANS or CASTOR MEAL or CASTOR POMACE or CASTOR FLAKE | II | solid | 5 kg |
| 9 – UN 2990, LIFE-SAVING APPLIANCES, SELF-INFLATING | - | - | 0 |
| 9 – UN 3072, LIFE-SAVING APPLIANCES NOT SELF-INFLATING containing dangerous goods as equipment | - | - | 0 |
| 9 – UN 3151, POLYHALOGENATED BIPHENYLS, LIQUID or POLYHALOGENATED TERPHENYLS, LIQUID | II | liquid | 1 litre |
| 9 – UN 3152, POLYHALOGENATED BIPHENYLS, SOLID or POLYHALOGENATED TERPHENYLS, SOLID | II | solid | 1 kg |
| 9 – 3166, ENGINE, INTERNAL COMBUSTION or VEHICLE, FLAMMABLE GAS POWERED or VEHICLE, FLAMMABLE LIQUID POWERED or ENGINE, FUEL CELL, FLAMMABLE GAS POWERED or ENGINE, FUEL CELL, FLAMMABLE LIQUID POWERED or VEHICLE FUEL CELL, FLAMMABLE GAS POWERED or VEHICLE, FUEL CELL, FLAMMABLE LIQUID POWERED † | - | - | 0 |
| 9 – UN 3171, BATTERY-POWERED VEHICLE or BATTERY-POWERED EQUIPMENT † | - | - | 0 |
| 9 – UN 3245, GENETICALLY MODIFIED MICROORGANISMS or GENETICALLY MODIFIED ORGANISMS | - | - | 0 |
| 9 – UN 3257, ELEVATED TEMPERATURE LIQUID, N.O.S., at or above 100°C and below its flash point (including molten metals, molten salts, etc.) | III | - | 0 |
| 9 – UN 3258, ELEVATED TEMPERATURE SOLID, N.O.S., at or above 240°C | III | - | 0 |
| 9 – UN 3268, AIRBAG INFLATORS or AIRBAG MODULES or SEAT-BELT PRETENSIONERS | III | - | 0 |
| 9 – UN 3316, CHEMICAL KIT or FIRST AID KIT | - | - | 0 |
| 9 – UN 3334, AVIATION REGULATED LIQUID, N.O.S. † | - | - | 0 |
| 9 – UN 3335, AVIATION REGULATED SOLID, N.O.S. † | - | - | 0 |

| Class or division or product | Packing group | Physical state | Maximum quantity per inner packaging |
|---|---------------|----------------|--------------------------------------|
| 9 – UN 3359, FUMIGATED CARGO TRANSPORT UNIT | - | - | 0 |
| 9 – UN 3363, DANGEROUS GOODS IN MACHINERY or DANGEROUS GOODS IN APPARATUS | - | - | 0 |
| 9 – UN 3432, POLYCHLORINATED BIPHENYLS, SOLID | II | solid | 1 kg |
| Note: Some entries are subject to Special Provisions that modify the requirements for transport. In some cases the Special Provisions may specify additional controls or exclude the dangerous goods from transport controls. | | | |
| * Not subject to controls for transport of dangerous goods on land when packed in containers of 5 litres or less, but controls may apply for transport by air or sea. | | | |
| Δ Not subject to controls for transport of dangerous goods on land or by sea when packed in containers of 250 litres or less, but controls may apply for transport by air. | | | |
| § Not subject to controls for transport of dangerous goods on land or by air, but controls may apply for transport by sea. | | | |
| ‡ Glass, porcelain or stoneware inner packaging must be enclosed in a compatible and rigid intermediate packaging. | | | |
| † Not subject to controls for transport of dangerous goods on land or by sea, but controls may apply for transport by air. | | | |

Schedule 2A

Dangerous goods that must not be transported as Dangerous Goods in Limited Quantities or as Consumer Commodities (Revoked)

Schedule 3

Segregation requirements for dangerous goods

| Column A Class or division and name of dangerous goods | Column B Must not be loaded in the same freight container or on the same vehicle | Column C Must not be loaded in the same freight container; and Must be separated horizontally by at least three metres unless all but one are packed in separate freight containers | Column D Goods of Packing Group II or III may be loaded in the same freight container or on the same vehicle, if transported in segregation devices |
|---|---|--|--|
| 1 Explosives | 2.1, 2.2, 2.3, 3, 4.1, 4.2, 4.3, 5.1, 5.2, 6.1, 6.2, 7, 8, 9 | - | - |
| 2.1 Flammable gases | 1, 3, 4.2, 5.1, 5.2, 7 | 4.1 | - |
| 2.2 Non-flammable, non-toxic gases | 1 | 4.2, 5.2 | |
| 2.3 Toxic gases | 1, 3, 4.2, 5.2, food items | - | - |
| 3 Flammable liquids | 1, 2.1, 2.3, 4.2, 5.1, 5.2, 7 | 4.3 | 4.2, 4.3, 5.1, 5.2 |
| 4.1 Flammable solids | 1, 5.2, 7 | 2.1, 4.2, 5.1 | 4.2, 5.1, 5.2 |
| 4.2 Spontaneously combustible | 1, 2.1, 2.3, 3, 5.1, 5.2, 7 | 2.2, 4.1 | 3, 4.1, 5.1, 5.2 |
| 4.3 Dangerous when wet | 1, 5.1, 5.2, 7 | 3, 8 | 3, 5.1, 5.2, 8 |
| 5.1 Oxidizing substances | 1, 2.1, 3, 4.2, 4.3, 5.2, 6.2, 8 | 4.1, 6.1, 7 | 3, 4.1, 4.2, 4.3, 5.2, 6.1, 6.2, 8 |
| 5.2 Organic peroxides | 1, 2.1, 2.3, 3, 4.1, 4.2, 4.3, 5.1, 6.2, 7, 8 | 2.2, 6.1 | 3, 4.1, 4.2, 4.3, 5.1, 6.1, 6.2, 8 |
| 6.1 Toxic substances | 1, food items, note 1 | 5.1, 5.2 | 5.1, 5.2, food items |
| 6.2 Infectious substances | 1, 5.1, 5.2, food items | - | 5.1, 5.2, food items |
| 7 Radioactive materials | 1, 2.1, 3, 4.1, 4.2, 4.3, 5.2, 8 | 5.1 | - |

| Column A | Column B | Column C | Column D |
|---|--|----------|---------------------------|
| 8 Corrosives | 1, 5.1, 5.2, 7, food items, note 1, note 2 | 4.3 | 4.3, 5.1, 5.2, food items |
| 9 Miscellaneous dangerous substances and articles | 1, note 4 | - | note 3 |

Note 1. Cyanides (Class 6.1) must not be loaded in the same freight container or on the same vehicle with acids (Class 8).

Note 2. Strong acids must not be loaded in the same freight container or on the same vehicle with strong alkalis.

Note 3. Segregation devices may be used as specified in 6.4(2)(b).

Note 4. Class 9 dangerous goods that contain organic matter must not be loaded in the same bulk container or tankwagon with dangerous goods of Division 5.1, unless the Class 9 and Division 5.1 dangerous goods are in separate compartments of a bulk container or tankwagon.

Schedule 4
Dangerous goods in excepted quantities

[Ref 2.9]

PART A

QUANTITY LIMITS FOR DANGEROUS GOODS IN EXCEPTED QUANTITIES

| Class or division or product | Packing group | Maximum quantity* per inner packaging | Maximum quantity+ per outer packaging |
|--|---------------|---------------------------------------|---------------------------------------|
| 1 | - | 0 | 0 |
| 2.1 | - | 0 | 0 |
| 2.2 - with a subsidiary risk | - | 0 | 0 |
| 2.2 - without a subsidiary risk, except UN Nos. 1044, 1950, 2037, 2857, 3164 | - | 30 | 1000 |
| 2.2 - UN 1044, FIRE EXTINGUISHERS with compressed or liquefied gas | - | 0 | 0 |
| 2 - UN 1950, AEROSOLS | - | 0 | 0 |
| 2 - UN 2037, GAS CARTRIDGES without a release device, non-refillable | - | 0 | 0 |
| 2.2 - UN 2857, REFRIGERATING MACHINES containing non-flammable, non-toxic gases or ammonia solutions (UN 2672) | - | 0 | 0 |
| 2.2 - UN 3164, ARTICLES, PRESSURIZED, PNEUMATIC or HYDRAULIC (containing non-flammable gas) | - | 0 | 0 |
| 2.3 | - | 0 | 0 |
| 3 - with a subsidiary risk | I | 0 | 0 |
| 3 - without a subsidiary risk, except UN Nos. 2059, 3379 | I | 30 | 300 |
| 3 - except UN Nos. 1204, 2059, 3064, 3269, 3357 | II | 30 | 500 |
| 3 - except UN Nos. 2059, 3256, 3269 | III | 30 | 1000 |
| 3 - UN 1204, NITROGLYCERIN SOLUTION IN ALCOHOL with not more than 1% nitroglycerin | II | 0 | 0 |
| 3 - UN 2059, NITROCELLULOSE SOLUTION, FLAMMABLE with not more than 12.6% nitrogen, by dry mass, and not more than 55% nitrocellulose | I, II or III | 0 | 0 |

| Class or division or product | Packing group | Maximum quantity* per inner packaging | Maximum quantity+ per outer packaging |
|--|---------------|---------------------------------------|---------------------------------------|
| 3 - UN 3064, NITROGLYCERIN, SOLUTION IN ALCOHOL with more than 1% but not more than 5% nitroglycerin | II | 0 | 0 |
| 3 - UN 3256, ELEVATED TEMPERATURE LIQUID, FLAMMABLE, N.O.S. with flash point above 60°C, at or above its flash point | III | 0 | 0 |
| 3 - UN 3269, POLYESTER RESIN KIT | II or III | 0 | 0 |
| 3 - UN 3343, NITROGLYCERIN MIXTURE, DESENSITIZED, LIQUID, FLAMMABLE, N.O.S. with not more than 30% nitroglycerin, by mass | I, II or III | 0 | 0 |
| 3 - UN 3357, NITROGLYCERIN MIXTURE, DESENSITIZED, LIQUID, N.O.S. with not more than 30% nitroglycerin, by mass | II | 0 | 0 |
| 3 - UN 3379, DESENSITIZED EXPLOSIVE, LIQUID, N.O.S. | I | 0 | 0 |
| 3 - UN 3473, FUEL CELL CARTRIDGES or FUEL CELL CARTRIDGES CONTAINED IN EQUIPMENT or FUEL CELL CARTRIDGES PACKED WITH EQUIPMENT, containing flammable liquids | - | 0 | 0 |
| 4.1 | I | 0 | 0 |
| 4.1 - except UN Nos. 2555, 2556, 2557, 2907, 3176, 3319, 3344 | II | 30 | 500 |
| 4.1 - except UN Nos. 2304, 2448, 3176 | III | 30 | 1000 |
| 4.1 - UN 1327, HAY, STRAW or BHUSA | - | 0 | 0 |
| 4.1 - UN 2304, NAPHTHALENE, MOLTEN | III | 0 | 0 |
| 4.1 - UN 2448, SULPHUR, MOLTEN | III | 0 | 0 |
| 4.1 - UN 2555, NITROCELLULOSE WITH WATER (not less than 25% water, by mass) | II | 0 | 0 |
| 4.1 - UN 2556, NITROCELLULOSE WITH ALCOHOL (not less than 25% alcohol, by mass, and not more than 12.6% nitrogen, by dry mass) | II | 0 | 0 |
| 4.1 - UN 2557, NITROCELLULOSE, with not more than 12.6% nitrogen, by dry mass, MIXTURE WITH or WITHOUT PLASTICIZER, WITH or WITHOUT PIGMENT | II | 0 | 0 |
| 4.1 - UN 2907, ISOSORBIDE DINITRATE MIXTURE with not less than 60% lactose, mannose, starch or calcium hydrogen phosphate | II | 0 | 0 |
| 4.1 - UN 3176, FLAMMABLE SOLID, ORGANIC, MOLTEN, N.O.S. | II or III | 0 | 0 |
| 4.1 - UN 3221 - UN 3240, Self-reactive substances | - | 0 | 0 |
| 4.1 - UN 3319, NITROGLYCERIN MIXTURE, DESENSITIZED, SOLID, N.O.S. with more than 2% but not more than 10% nitroglycerin, by mass | II | 0 | 0 |

| Class or division or product | Packing group | Maximum quantity* per inner packaging | Maximum quantity+ per outer packaging |
|---|---------------|---------------------------------------|---------------------------------------|
| 4.1 - UN 3344, PENTAERYTHRITOL TETRANITRATE (PENTAERYTHRITOL TETRANITRATE; PETN) MIXTURE, DESENSITIZED, SOLID, N.O.S. with more than 10% but not more than 20% PETN, by mass | II | 0 | 0 |
| 4.1 - UN 3360, FIBRES, VEGETABLE, DRY § | - | 0 | 0 |
| 4.2 | I | 0 | 0 |
| 4.2 | II | 30 | 500 |
| 4.2 | III | 30 | 1000 |
| 4.2 - UN 1856, RAGS, OILY § | - | 0 | 0 |
| 4.3 | I | 0 | 0 |
| 4.3 - except UN 3292 | II | 30 | 500 |
| 4.3 | III | 30 | 1000 |
| 4.3 - UN 3292, BATTERIES, CONTAINING SODIUM, or CELLS, CONTAINING SODIUM | II | 0 | 0 |
| 5.1 | I | 0 | 0 |
| 5.1 | II | 30 | 500 |
| 5.1 | III | 30 | 1000 |
| 5.1 - UN 2426, AMMONIUM NITRATE, LIQUID (hot concentrated solution) | - | 0 | 0 |
| 5.2 | - | 0 | 0 |
| 6.1 - except UN Nos. 1092, 1098, 1135, 1143, 1163, 1182, 1185, 1238, 1239, 1244, 1251, 1510, 1541, 1580, 1595, 1605, 1647, 1670, 1695, 1752, 1809, 1810, 1834, 1838, 1892, 1994, 2232, 2334, 2337, 2382, 2407, 2474, 2477, 2480, 2481, 2482, 2483, 2484, 2485, 2486, 2487, 2488, 2521, 2605, 2606, 2644, 2646, 2668, 3023, 3079, 3246, 3381, 3382, 3383, 3384, 3385, 3386, 3387, 3388, 3389, 3390, 3488, 3489, 3490, 3491, 3492, 3493 | I | 1 | 300 |
| 6.1 - except UN Nos. 1600, 1700, 2016, 2017, 2312, 3250 | II | 1 | 500 |
| 6.1 | III | 30 | 1000 |
| 6.1 - UN 1092, ACROLEIN, STABILIZED | I | 0 | 0 |
| 6.1 - UN 1098, ALLYL ALCOHOL | I | 0 | 0 |
| 6.1 - UN 1135, ETHYLENE CHLOROXYDRIN | I | 0 | 0 |
| 6.1 - UN 1143, CROTONALDEHYDE or CROTONALDEHYDE, STABILIZED | I | 0 | 0 |
| 6.1 - UN 1163, DIMETHYLHYDRAZINE, UNSYMMETRICAL | I | 0 | 0 |
| 6.1 - UN 1182, ETHYL CHLOROFORMATE | I | 0 | 0 |
| 6.1 - UN 1185, ETHYLENEIMINE, STABILIZED | I | 0 | 0 |
| 6.1 - UN 1238, METHYL CHLOROFORMATE | I | 0 | 0 |
| 6.1 - UN 1239, METHYL CHLOROMETHYL ETHER | I | 0 | 0 |

| Class or division or product | Packing group | Maximum quantity* per inner packaging | Maximum quantity+ per outer packaging |
|---|----------------------|--|--|
| 6.1 - UN 1244, METHYLHYDRAZINE | I | 0 | 0 |
| 6.1 - UN 1251, METHYL VINYL KETONE, STABILIZED | I | 0 | 0 |
| 6.1 - UN 1510, TETRANITROMETHANE | I | 0 | 0 |
| 6.1 - UN 1541, ACETONE CYANOHYDRIN, STABILIZED | I | 0 | 0 |
| 6.1 - UN 1580, CHLOROPICRIN | I | 0 | 0 |
| 6.1 - UN 1595, DIMETHYL SULPHATE | I | 0 | 0 |
| 6.1 - UN 1600, DINITROTOLUENES, MOLTEN | II | 0 | 0 |
| 6.1 - UN 1605, ETHYLENE DIBROMIDE | I | 0 | 0 |
| 6.1 - UN 1647, METHYL BROMIDE AND ETHYLENE DIBROMIDE MIXTURE, LIQUID | I | 0 | 0 |
| 6.1 - UN 1670, PERCHLOROMETHYL MERCAPTAN | I | 0 | 0 |
| 6.1 - UN 1695, CHLOROACETONE, STABILIZED | I | 0 | 0 |
| 6.1 - UN 1700, TEAR GAS CANDLES | II | 0 | 0 |
| 6.1 - UN 1752, CHLOROACETYL CHLORIDE | I | 0 | 0 |
| 6.1 - UN 1809, PHOSPHORUS TRICHLORIDE | I | 0 | 0 |
| 6.1 - UN 1810, PHOSPHORUS OXYCHLORIDE | I | 0 | 0 |
| 6.1 - UN 1834, SULPHURYL CHLORIDE | I | 0 | 0 |
| 6.1 - UN 1838, TITANIUM TETRACHLORIDE | I | 0 | 0 |
| 6.1 - UN 1892, ETHYLDICHLOROARSINE | I | 0 | 0 |
| 6.1 - UN 1994, IRON PENTACARBONYL | I | 0 | 0 |
| 6.1 - UN 2016, AMMUNITION, TOXIC, NON-EXPLOSIVE without burster or expelling charge, non-fuzed | II | 0 | 0 |
| 6.1 - UN 2017, AMMUNITION, TEAR-PRODUCING, NON-EXPLOSIVE without burster or expelling charge, non-fuzed | II | 0 | 0 |
| 6.1 - UN 2232, 2-CHLOROETHANAL | I | 0 | 0 |
| 6.1 - UN 2312, PHENOL, MOLTEN | II | 0 | 0 |
| 6.1 - UN 2334, ALLYLAMINE | I | 0 | 0 |
| 6.1 - UN 2337, PHENYL MERCAPTAN | I | 0 | 0 |
| 6.1 - UN 2382, DIMETHYLHYDRAZINE, SYMMETRICAL | I | 0 | 0 |
| 6.1 - UN 2407, ISOPROPYL CHLOROFORMATE | I | 0 | 0 |
| 6.1 - UN 2474, THIOPHOSGENE | I | 0 | 0 |
| 6.1 - UN 2477, METHYL ISOTHIOCYANATE | I | 0 | 0 |
| 6.1 - UN 2480, METHYL ISOCYANATE | I | 0 | 0 |
| 6.1 - UN 2481, ETHYL ISOCYANATE | I | 0 | 0 |

| Class or division or product | Packing group | Maximum quantity* per inner packaging | Maximum quantity ⁺ per outer packaging |
|---|---------------|---------------------------------------|---|
| 6.1 - UN 2482, n-PROPYL ISOCYANATE | I | 0 | 0 |
| 6.1 - UN 2483, ISOPROPYL ISOCYANATE | I | 0 | 0 |
| 6.1 - UN 2484, tert-BUTYL ISOCYANATE | I | 0 | 0 |
| 6.1 - UN 2485, n-BUTYL ISOCYANATE | I | 0 | 0 |
| 6.1 - UN 2486, ISOBUTYL ISOCYANATE | I | 0 | 0 |
| 6.1 - UN 2487, PHENYL ISOCYANATE | I | 0 | 0 |
| 6.1 - UN 2488, CYCLOHEXYL ISOCYANATE | I | 0 | 0 |
| 6.1 - UN 2521, DIKETENE, STABILIZED | I | 0 | 0 |
| 6.1 - UN 2605, METHOXYMETHYL ISOCYANATE | I | 0 | 0 |
| 6.1 - UN 2606, METHYL ORTHOSILICATE | I | 0 | 0 |
| 6.1 - UN 2644, METHYL IODIDE | I | 0 | 0 |
| 6.1 - UN 2646, HEXACHLOROCYCLOPENTADIENE | I | 0 | 0 |
| 6.1 - UN 2668, CHLOROACETONITRILE | I | 0 | 0 |
| 6.1 - UN 3023, 2-METHYL-2-HEPTANETHIOL | I | 0 | 0 |
| 6.1 - UN 3079, METHACRYLONITRILE, STABILIZED | I | 0 | 0 |
| 6.1 - UN 3246, METHANESULPHONYL CHLORIDE | I | 0 | 0 |
| 6.1 - UN 3250, CHLOROACETIC ACID, MOLTEN | II | 0 | 0 |
| 6.1 - UN 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 | I | 0 | 0 |
| 6.1 - UN 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 | I | 0 | 0 |
| 6.1 - UN 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 | I | 0 | 0 |
| 6.1 - UN 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 | I | 0 | 0 |
| 6.1 - UN 3385, TOXIC BY INHALATION, LIQUID, WATER-REACTIVE, N.O.S. with an inhalation toxicity lower than or equal to 200 ml/ | I | 0 | 0 |

| Class or division or product | Packing group | Maximum quantity* per inner packaging | Maximum quantity⁺ per outer packaging |
|--|----------------------|--|---|
| m ³ and saturated vapour concentration greater than or equal to 500 LC ₅₀ | | | |
| 6.1 - UN 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 | I | 0 | 0 |
| 6.1 - UN 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 | I | 0 | 0 |
| 6.1 - UN 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 | I | 0 | 0 |
| 6.1 - UN 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 | I | 0 | 0 |
| 6.1 - UN 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 | I | 0 | 0 |
| 6.1 - UN 3488, TOXIC BY INHALATION LIQUID, FLAMMABLE, 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 | I | 0 | 0 |
| 6.1 - UN 3489, TOXIC BY INHALATION LIQUID, FLAMMABLE, 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 | I | 0 | 0 |
| 6.1 - UN 3490, TOXIC BY INHALATION LIQUID, WATER-REACTIVE, 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 | I | 0 | 0 |
| 6.1 - UN 3491, TOXIC BY INHALATION LIQUID, WATER-REACTIVE, 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 | I | 0 | 0 |

| Class or division or product | Packing group | Maximum quantity* per inner packaging | Maximum quantity ⁺ per outer packaging |
|---|---------------|---------------------------------------|---|
| 6.1 - UN 3492, TOXIC BY INHALATION LIQUID, CORROSIVE, 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 | I | 0 | 0 |
| 6.1 - UN 3493, TOXIC BY INHALATION LIQUID, CORROSIVE, 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 | I | 0 | 0 |
| 6.2 | - | 0 | 0 |
| 7 | - | 0 | 0 |
| 8 | I | 0 | 0 |
| 8 - except UN Nos. 2028, 2576 | II | 30 | 500 |
| 8 - except UN Nos. 2215 (MOLTEN), 2803, 2809 | III | 30 | 1000 |
| 8 - UN 2028, BOMBS, SMOKE, NON-EXPLOSIVE with corrosive liquid, without initiating device | II | 0 | 0 |
| 8 - UN 2215, MALEIC ANHYDRIDE, MOLTEN | III | 0 | 0 |
| 8 - UN 2576, PHOSPHORUS OXYBROMIDE, MOLTEN | II | 0 | 0 |
| 8 - UN 2794, BATTERIES, WET, FILLED WITH ACID, electric storage | - | 0 | 0 |
| 8 - UN 2795, BATTERIES, WET, FILLED WITH ALKALI, electric storage | - | 0 | 0 |
| 8 - UN 2800, BATTERIES, WET, NONSPILLABLE, electric storage | - | 0 | 0 |
| 8 - UN 2803, GALLIUM | III | 0 | 0 |
| 8 - UN 2809, MERCURY | III | 0 | 0 |
| 8 - UN 3028, BATTERIES, DRY, CONTAINING POTASSIUM HYDROXIDE SOLID, electric storage | - | 0 | 0 |
| 9 - except UN Nos. 3090, 3091, 3480, 3481 | II | 30 | 500 |
| 9 - except UN Nos. 1845, 2807, 3257, 3258, 3268 | III | 30 | 1000 |
| 9 - UN 1845, CARBON DIOXIDE, SOLID (DRY ICE) | III | 0 | 0 |
| 9 - UN 2807, MAGNETIZED MATERIAL † | III | 0 | 0 |
| 9 - UN 2990, LIFE-SAVING APPLIANCES, SELF-INFLATING | - | 0 | 0 |
| 9 - UN 3072, LIFE-SAVING APPLIANCES NOT SELF-INFLATING containing dangerous goods as equipment | - | 0 | 0 |
| 9 - UN 3090, LITHIUM METAL BATTERIES (including lithium alloy batteries) | II | 0 | 0 |
| 9 - UN 3091, LITHIUM METAL BATTERIES CONTAINED IN EQUIPMENT or LITHIUM | II | 0 | 0 |

| Class or division or product | Packing group | Maximum quantity* per inner packaging | Maximum quantity [†] per outer packaging |
|---|---------------|---------------------------------------|---|
| METAL BATTERIES PACKED WITH EQUIPMENT (including lithium alloy batteries) | | | |
| [9 - UN 3166, ENGINE, INTERNAL COMBUSTION or VEHICLE, FLAMMABLE GAS POWERED or VEHICLE, FLAMMABLE LIQUID POWERED or ENGINE, FUEL CELL, FLAMMABLE GAS POWERED or ENGINE, FUEL CELL, FLAMMABLE LIQUID POWERED or VEHICLE, FUEL CELL, FLAMMABLE GAS POWERED or VEHICLE, FUEL CELL, FLAMMABLE LIQUID POWERED] | - | 0 | 0 |
| 9 - UN 3171, BATTERY-POWERED VEHICLE or BATTERY-POWERED EQUIPMENT † | - | 0 | 0 |
| 9 - UN 3245, GENETICALLY MODIFIED MICROORGANISMS or GENETICALLY MODIFIED ORGANISMS | - | 0 | 0 |
| 9 - UN 3257, ELEVATED TEMPERATURE LIQUID, N.O.S., at or above 100°C and below its flash point (including molten metals, molten salts, etc.) | III | 0 | 0 |
| 9 - UN 3258, ELEVATED TEMPERATURE SOLID, N.O.S., at or above 240°C | III | 0 | 0 |
| 9 - UN 3268, AIR BAG INFLATORS, or AIR BAG MODULES, or SEATBELT PRETENSIONERS | III | 0 | 0 |
| 9 - UN 3316, CHEMICAL KIT or FIRST AID KIT | - | 0 | 0 |
| 9 - UN 3334, AVIATION REGULATED LIQUID, N.O.S. † | - | 0 | 0 |
| 9 - UN 3335, AVIATION REGULATED SOLID, N.O.S. † | - | 0 | 0 |
| [9 - UN 3359, FUMIGATED CARGO TRANSPORT UNIT] | - | 0 | 0 |
| 9 - UN 3363, DANGEROUS GOODS IN MACHINERY or DANGEROUS GOODS IN APPARATUS | - | 0 | 0 |
| 9 - UN 3480, LITHIUM ION BATTERIES (including lithium ion polymer batteries) | II | 0 | 0 |
| 9 - UN 3481, LITHIUM ION BATTERIES CONTAINED IN EQUIPMENT or LITHIUM ION BATTERIES PACKED WITH EQUIPMENT (including lithium ion polymer batteries) | II | 0 | 0 |
| Note: Some entries are subject to Special Provisions that modify the requirements for transport. In some cases the Special Provisions may specify additional controls or exclude the dangerous goods from transport controls. | | | |
| § Not subject to controls for transport of dangerous goods on land or by air, but controls may apply for transport by sea. | | | |
| † Not subject to controls for transport of dangerous goods on land or by sea, but controls may apply for transport by air. | | | |
| * Note: Quantity is stated in grams for solids, milliliters for liquids and milliliters water capacity of the container for gases. | | | |

| Class or division or product | Packing group | Maximum quantity* per inner packaging | Maximum quantity+ per outer packaging |
|--|---------------|---------------------------------------|---------------------------------------|
| + Note: When dangerous goods with different quantity limits are packaged together, the quantity for the outer packaging is limited to the most restrictive quantity. | | | |

PART B TESTS FOR PACKAGING FOR DANGEROUS GOODS IN EXCEPTED QUANTITIES

- 1 The complete package, as prepared for transport, must be able to withstand the tests in *paragraphs 4 and 5* without any inner packaging breaking or leaking and without significant reduction in the effectiveness of the packaging.
- 2 The tests in *paragraphs 4 and 5* may be carried out by any reasonable means and must be documented.
- 3 Inner packages must be prepared for the tests in *paragraphs 4 and 5* as follows:
 - (a) inner packagings for solids must be filled to 95% or more of their capacity; and
 - (b) inner packagings for liquids must be filled to 98% or more of their capacity; and
 - (c) subject to *paragraphs (d) and (e)*, a substance other than the one to be transported may be used for the purposes of testing except where this would invalidate the results of the tests; and
 - (d) when another substance is used for the packaging tests for solids, it must have the same physical characteristics (mass, grain size, etc) as the substance to be transported; and
 - (e) when another substance is used for the packaging tests for liquids, it must have a similar relative density and viscosity to those of the substance to be transported.
- 4 The complete package, as prepared for transport, must be dropped from a height of 1.8 m onto a rigid, non-resilient, flat and horizontal surface as follows:
 - (a) a package in the shape of a box must be dropped in each of the following attitudes:
 - (i) flat on the base;
 - (ii) flat on the top;
 - (iii) flat on the longest side;
 - (iv) flat on the shortest side;
 - (v) on a corner; and
 - (b) a package in the shape of a drum must be dropped in each of the following attitudes:
 - (i) diagonally on the top chime, with the centre of gravity directly above the point of impact;
 - (ii) diagonally on the base chime, with the centre of gravity directly above the point of impact;
 - (iii) flat on the side.

[Note: Each drop may be performed on different, but identical packages.]
- 5 The complete package, as prepared for transport, must have a force applied to its top surface for a period of 24 hours, equivalent to the weight of identical packages stacked to a height of 3 m, including the test package.

PART C

EXCEPTED QUANTITIES MARK:



Minimum dimensions of “Excepted Quantities Mark”: 100 mm x 100 mm, printed in black or red on a contrasting background.

- * Space for the class or division of all dangerous goods in excepted quantities in the package.
- * * Space for the name of the consignor or consignee, if not shown elsewhere on the package.

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