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INLAND TRANSPORT COMMITTEE

Joint Meeting of the RID safety Committee and the Working Party on the Transport of Dangerous Goods

#### **REPORT OF THE SESSION** Held in Geneva from 13 to 24 March 2000

### Addendum 3

# Chapters 3.1, 3.2 and 3.4 of the restructured ADR

This text is a consolidated version of chapters 3.1, 3.2 and 3.4 following the discussions at the RID/ADR/ADN Joint Meeting held from 13 to 24 March 2000 in Geneva..

The corresponding chapters 3.1, 3.2 and 3.4 of RID will be circulated by the Central Office for International Carriage by Rail (OCTI) under the symbol OCTI/RID/GT-III/2000-A/Add.3.

#### CHAPTER 3.1

#### GENERAL

#### 3.1.1 Introduction

In addition to the provisions referred to or given in the tables of this Part, the general requirements of each Part, Chapter and/or Section are to be observed. These general requirements are not given in the tables. When a general requirement is contradictory to a special provision, the special provision prevails.

#### 3.1.2 Proper shipping name

3.1.2.1 The proper shipping name is that portion of the entry most accurately describing the goods in table A in Chapter 3.2, which is shown in upper case characters (plus any numbers, Greek letters, 'sec', 'tert', and the letters m, n, o, p, which form an integral part of the name). An alternative proper shipping name may be shown in brackets following the main proper shipping name (e.g., ETHANOL (ETHYL ALCOHOL)). Portions of an entry appearing in lower case need not be considered as part of the proper shipping name.

3.1.2.2 When conjunctions such as "and" or "or" are in lower case or when segments of the name are punctuated by commas, the entire name of the entry need not necessarily be shown in the transport document or package markings. This is the case particularly when a combination of several distinct entries are listed under a single UN Number. Examples illustrating the selection of the proper shipping name for such entries are:

(a) UN 1057 LIGHTERS or LIGHTER REFILLS - The proper shipping name is the most appropriate of the following possible combinations:

LIGHTERS LIGHTER REFILLS;

(b) UN 3207 ORGANOMETALLIC COMPOUND or COMPOUND SOLUTION or COMPOUND DISPERSION, WATER-REACTIVE, FLAMMABLE, N.O.S. The proper shipping name is the most appropriate of the following possible combinations:

ORGANOMETALLIC COMPOUND, WATER-REACTIVE, FLAMMABLE, N.O.S. ORGANOMETALLIC COMPOUND SOLUTION, WATER-REACTIVE, FLAMMABLE, N.O.S. ORGANOMETALLIC COMPOUND DISPERSION, WATER-REACTIVE, FLAMMABLE, N.O.S.

each supplemented with the technical name of the goods (see 3.1.2.6.1).

3.1.2.3 Proper shipping names may be used in the singular or plural as appropriate. In addition, when qualifying words are used as part of the proper shipping name, their sequence on documentation or package markings is optional. For instance, 'Dimethylamine solution' may alternatively be shown 'Solution of dimethylamine'. Commercial or military names for goods of Class 1 which contain the proper shipping name supplemented by additional descriptive text may be used.

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3.1.2.4 Unless it is already included in capital letters in the name indicated in table A in Chapter 3.2, the qualifying word "LIQUID" or "SOLID", as appropriate, shall be added as part of the proper shipping name when a substance specifically listed by name may, due to the differing physical states of the various isomers of the substance, be either a liquid or a solid (e.g. DINITROTOLUENES, LIQUID; DINITROTOLUENES, SOLID).

3.1.2.5 Unless it is already included in capital letters in the name indicated in table A in Chapter 3.2, the qualifying word "MOLTEN" shall be added as part of the proper shipping name when a substance, which is a solid in accordance with the definition in 1.2.1, is offered for transport in the molten state (e.g. ALKYLPHENOL, SOLID, N.O.S., MOLTEN).

### 3.1.2.6 Generic or "not otherwise specified" (N.O.S.) names

3.1.2.6.1 For the purposes of documentation and marking of packages, when an "N.O.S." or "generic" proper shipping name is used, the proper shipping name shall be supplemented with the technical name of the goods, unless a national law or international convention prohibits its disclosure if it is a controlled substance. The particular 'N.O.S.' or 'generic' entries for which this supplementary information is considered necessary have been allocated Special Provision 274 in column (6) of table A in Chapter 3.2.

3.1.2.6.1.1 The technical name shall be shown in parentheses immediately following the proper shipping name. It shall be a recognized chemical or other name currently used in scientific and technical handbooks, journals and texts. Trade names shall not be used for this purpose. In the case of pesticides, only ISO common name(s), other name(s) in the WHO Recommended Classification of Pesticides by Hazard and Guidelines to Classification, or the name(s) of the active substance(s) may be used.

3.1.2.6.1.2 When a mixture of dangerous goods is described by one of the "N.O.S." or "generic" entries to which Special Provision 274 has been allocated in column (6) of table A in Chapter 3.2, not more than the two constituents which most predominantly contribute to the hazard or hazards of a mixture need to be shown, excluding controlled substances when their disclosure is prohibited by national law or international convention. If a package containing a mixture is labelled with any subsidiary risk label, one of the two technical names shown in parentheses shall be the name of the constituent which compels the use of the subsidiary risk label.

### NOTE: see 5.4.1.2.2

3.1.2.6.1.3 Examples illustrating the selection of the proper shipping name supplemented with the technical name of goods for such N.O.S. entries are:

UN 2003 METAL ALKYL, N.O.S. (trimethylgallium) UN 2902 PESTICIDE, LIQUID, TOXIC, N.O.S. (drazoxolon).

#### 3.1.2.7 Mixtures and solutions containing one dangerous substance

When mixtures and solutions have to be regarded as the dangerous substance listed by name in accordance with the classification requirements of 2.1.3.3, the qualifying word "SOLUTION" or "MIXTURE", as appropriate, shall be added as part of the proper shipping name, e.g. "ACETONE SOLUTION". In addition, the concentration of the solution or mixture may also be indicated, e.g. "ACETONE 75% SOLUTION".

#### CHAPTER 3.2

#### LIST OF DANGEROUS GOODS SUBSTANCES AND ARTICLES IN UN NUMBER ORDER

# 3.2.1 Explanations concerning table A: List of dangerous substances and articles in UN number order

As a rule, each row of table A in Chapter 3.2 deals with the substance(s) or article(s) covered by a specific UN number. However, when substances or articles belonging to the same UN number have different chemical properties, physical properties and/or transport conditions, several consecutive rows may be used for that UN number.

Each of the 20 columns of table A is dedicated to a specific subject as indicated in the explanatory notes below. The intersection of columns and rows contains information concerning the subject treated in that column, for the substance(s) or article(s) of that row:

- the first four cells identify the substance(s) or article(s) belonging to that row (additional information in that respect may be given by the special provisions referred to in cell (6));
- the following cells give the applicable special provisions, either in the form of complete information or in coded form. The codes cross-refer to detailed information that is to be found in the Part, Chapter, Section and/or Sub-section indicated in the explanatory notes below. An empty cell means either that there is no special provision and that only the general requirements apply, or that the transport restriction indicated in the explanatory notes is in force.

The applicable general requirements are not referred to in the corresponding cells. The explanatory notes below indicate for every column the Part(s), Chapter(s), Section(s) and/or Sub-section(s) where these are to be found.

#### Explanatory notes for each column:

Column (1) UN number

Contains the UN number:

- of the dangerous substance or article if the substance or article has been assigned its own specific UN number (see alphabetical list), or
- of the generic or n.o.s. entry to which the other dangerous substances or articles have been assigned in accordance with the criteria ("decision trees") of Part 2.

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Column (2) Name and description of the goods

Contains, in upper case characters, the proper shipping name of the substance or article if the substance or article has been assigned its own specific UN number, or of the generic or n.o.s. entry to which it has been assigned in accordance with the criteria ("decision trees") of Part 2 (see 3.1.2 for further details on proper shipping name).

A descriptive text in lower case characters is added after the proper shipping name to clarify the scope of the entry if the classification and/or transport conditions of the substance or article may be different under certain conditions.

#### Column (3a) Class

Contains the number of the Class, whose heading covers the dangerous substance or article. This Class number is assigned in accordance with the procedures and criteria of Part 2.

Column (3b) Classification code

Contains the classification code of the dangerous substance or article.

- For dangerous substances or articles of Class 1, the code consists of a division number and compatibility group letter, which are assigned in accordance with the procedures and criteria of 2.2.1.1.4.
- For dangerous substances or articles of Class 2, the code consists of an item number and hazardous property group, which are explained in 2.2.2.1.2 and 2.2.2.1.3.
- For dangerous substances or articles of Classes 3, 4.1, 4.2, 4.3, 5.1, 5.2, 6.1, 6.2, 8 and 9, the codes are explained in 2.2.x.1.2<sup>1</sup>.
- Dangerous substances or articles of Class 7 do not have a classification code.

#### Column (4) Packing group

Contains the packing group number(s) (I, II or III) assigned to the dangerous substance. These packing group numbers are assigned on the basis of the procedures and criteria of Part 2. Certain articles and substances are not assigned to packing groups.

#### Column (5) Labels

Contains the model number of the labels/placards (see 5.2.2.2 and 5.3.1.7) that have to be affixed to packages, containers, tank-containers, portable tanks, MEGCs and vehicles. However:

- for substances or articles of Class 7, 7X means label model No.7A, 7B or 7C as appropriate according to the category (see 2.2.7.8.4 and 5.2.2.1.11.1) or placard No. 7D (see 5.3.1.1.3 and 5.3.1.7.2);

<sup>1</sup> x = the Class number of the dangerous substance or article, without dividing point if applicable.

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- labels of model number 11 are not indicated in this column; 5.2.2.1.12 is to be consulted in every case.

The general provisions on labelling/placarding (e.g. number of labels, their location) are to be found in 5.2.2.1 for packages, and in 5.3.1, for containers, tank-containers, MEGCs, portable tanks and vehicles.

*NOTE: Special provisions, indicated in column (6), may change the above labelling provisions.* 

Column (6) Special provisions

Contains the numeric codes of special provisions that have to be met. These provisions concern a wide array of subjects, mainly connected with the contents of columns (1) to (5) (e.g. transport prohibitions, exemptions from requirements, explanations concerning the classification of certain forms of the dangerous goods concerned and additional labelling or marking provisions), and are listed in Chapter 3.3 in numerical order. If column (6) is empty, no special provisions apply to the contents of columns (1) to (5) for the dangerous goods concerned.

Column (7) Limited quantities

Contains an alphanumeric code with the following meaning:

- LQ 0 signifies that no exemption from the provisions of ADR exists for the dangerous goods packed in limited quantities;
- All the other LQ codes signify that the provisions of ADR are not applicable if the conditions indicated in Chapter 3.4 are fulfilled (general conditions of 3.4.1 and conditions of 3.4.3, 3.4.4, 3.4.5 and 3.4.6 for the relevant code).

#### Column (8) Packing instructions

Contains the alphanumeric codes of the applicable packing instructions:

- alphanumeric codes starting with the letters "P", which refer to packing instructions for packagings and receptacles (except IBCs and large packagings), or "R", which refer to packing instructions for light gauge metal packagings. These are listed in 4.1.4.1 in numerical order, and specify the packagings and receptacles that are authorized. They also indicate which of the general packing provisions of 4.1.1, 4.1.2 and 4.1.3, and which of the special packing provisions of 4.1.5, 4.1.6, 4.1.7, 4.1.8 and 4.1.9 have to be met. If column (8) does not contain a code starting with the letters "P" or "R", the dangerous goods concerned cannot be carried in packagings;
- alphanumeric codes starting with the letters "IBC" refer to packing instructions for IBCs. These are listed in 4.1.4.2 in numerical order, and specify the IBCs that are authorized. They also indicate which of the general packing provisions of 4.1.1, 4.1.2 and 4.1.3, and which of the special packing provisions of 4.1.5, 4.1.6, 4.1.7, 4.1.8 and 4.1.9 have to be met. If column (8) does not contain a code starting with the letters "IBC", the dangerous goods concerned cannot be carried in IBCs;

- alphanumeric codes starting with the letters "LP" refer to packing instructions for large packagings. These are listed in 4.1.4.3 in numerical order, and specify the large packagings that are authorized. They also indicate which of the general packing provisions of 4.1.1, 4.1.2 and 4.1.3, and which of the special packing provisions of 4.1.5, 4.1.6, 4.1.7, 4.1.8 and 4.1.9 have to be met. If column (8) does not contain a code starting with the letters "LP", the dangerous goods concerned cannot be carried in large packagings;
- alphanumerical codes starting with letters "PR" refer to packing instructions for particular pressure receptacles. These are listed in 4.1.4.4 in numerical order, and specify the pressure receptacles that are authorized. They also indicate which of the general packing provisions of 4.1.1, 4.1.2 and 4.1.3, and which of the special packing provisions of 4.1.5, 4.1.6, 4.1.7, 4.1.8 and 4.1.9 have to be met.

*NOTE :* Special packing provisions, indicated in column (9), may change the above packing instructions.

Column (9a) Special packing provisions

Contains the alphanumeric codes of the applicable special packing provisions:

- alphanumeric codes starting with the letters "PP" or "RR" refer to special packing provisions for packagings and receptacles (except IBCs and large packagings) that have additionally to be met. These are to be found in 4.1.4.1, at the end of the relevant packing instruction (with the letter "P" or "R") referred to in column (8). If column (9) does not contain a code starting with the letters "PP" or "RR", none of the special packing provisions listed at the end of the relevant packing instruction apply;
- alphanumeric codes starting with the letter "B" refer to special packing provisions for IBCs that have additionally to be met. These are to be found in 4.1.4.2, at the end of the relevant packing instruction (with the letters "IBC") referred to in column (8). If column (9) does not contain a code starting with the letter "B", none of the special packing provisions listed at the end of the relevant packing instruction apply;
- alphanumeric codes starting with the letter "L" refer to special packing provisions for large packagings that have additionally to be met. These are to be found in 4.1.4.3, at the end of the relevant packing instruction (with the letters "LP") referred to in column (8). If column (9) does not contain a code starting with the letter "L", none of the special packing provisions listed at the end of the relevant packing instruction apply.

#### Column (9b) Mixed packing provisions

Contains the alphanumeric codes of the applicable mixed packing provisions. These are listed in 4.1.10 in numerical order. If there is no indication in the table of mixed packing provisions, only the general requirements apply (see 4.1.1.5 and 4.1.1.6).

Column (10) Portable tanks instructions

Contains an alphanumeric code assigned to a portable tank instruction, in accordance with 4.2.4.2.1 to 4.2.4.2.4 and 4.2.4.2.6. This portable tank instruction corresponds to the least stringent provisions that are acceptable for the carriage of the substance in portable tanks. The codes identifying the other portable tank instructions that are also permitted for the carriage of the substance are to be found in 4.2.4.2.5. If no code is given, carriage in portable tanks is not permitted.

The general requirements for the design, construction, equipment, type approval, testing and marking of portable tanks are to be found in Chapter 6.7. The general requirements for the use (e.g. filling) are to be found in 4.2.1 to 4.2.3.

*NOTE: Special provisions, indicated in column (11), may change the above requirements.* 

Column (11) Portable tank special provisions

Contains the alphanumeric codes of the portable tank special provisions that have additionally to be met. These codes, starting with the letters "TP" refer to special provisions for the construction or use of these portable tanks. They are to be found in 4.2.4.3.

Column (12) Tank codes for ADR tanks

Contains an alphanumeric code describing a tank type, in accordance with 4.3.3.1.1 (for substances of Class 2) or 4.3.4.1.1 (for substances of Classes 3 to 9). This tank type corresponds to the least stringent tank provisions that are acceptable for the carriage of the relevant substance in tanks. The codes describing the other permitted tank types are to be found in 4.3.3.1.2 (for substances of Classes 2) or 4.3.4.1.2 (for substances of Classes 3 to 9). If no code is given, carriage in ADR tanks is not permitted.

If in this column a tank code for solids (S) and for liquids (L) is indicated, this means that this substance may be carried in the solid or the liquid (molten) state. In general this provision is applicable to substances having melting points from 20  $^{\circ}$ C to 180  $^{\circ}$ C.

The general requirements for the construction, equipment, type approval, testing and marking that are not indicated in the tank type are to be found in 6.8.1, 6.8.2, 6.8.3 and 6.8.5. The general requirements for the use (e.g. maximum degree of filling, minimum test pressure) are to be found in 4.3.1 to 4.3.4.

The indication of a (M) after the code means that the substance can also be carried in battery-vehicles or MEGCs.

The indication of a (+) after the code means that the alternative use of tanks and the hierarchy of 4.3.4.1.3 is not applicable.

For fibre-reinforced plastic tanks, see 4.4.1 and Chapter 6.9.

For vacuum operated waste tanks, see 4.5.1 and Chapter 6.10.

NOTE: Special provisions, indicated in column (13), may change the above requirements.

Column (13) Special provisions for ADR tanks

Contains the alphanumeric codes of the special provisions for metal ADR tanks that have additionally to be met:

- alphanumeric codes starting with the letters "TU" refer to special provisions for the use of these tanks. These are to be found in 4.3.5.
- alphanumeric codes starting with the letters "TC" refer to special provisions for the construction of these tanks. These are to be found in 6.8.4 (a).
- alphanumeric codes starting with the letters "TE" refer to special provisions concerning the items of equipment of these tanks. These are to be found in 6.8.4 (b).
- alphanumeric codes starting with the letters "TA" refer to special provisions for the type approval of these tanks. These are to be found in 6.8.4 (c).
- alphanumeric codes starting with the letters "TP" refer to special provisions for the testing of these tanks. These are to be found in 6.8.4 (d).
- alphanumeric codes starting with the letters "TM" refer to special provisions for the marking of these tanks. These are to be found in 6.8.4 (e).

[Column 14 – 19: to be discussed in WP.15 and RID Committee of Experts]

#### CHAPTER 3.4

#### LIMITED QUANTITIES

3.4.1 Packagings used in accordance with 3.4.3 to 3.4.6 below, need only to conform to the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4

3.4.2 When the code LQ 0 is shown in column (7) of table A in Chapter 3.2 for a given substance or article, that substance or article is not exempted from any of the applicable provisions of Annexes A and B when it is packed in limited quantities, unless otherwise specified in these annexes.

3.4.3 Unless otherwise provided in this Chapter, when one of the codes LQ 1 or LQ 2 is shown in column (7) of table A in Chapter 3.2 for a given substance or article, the provisions of other Chapters of ADR do not apply to the transport of that substance or article, provided:

- (a) the provisions of 3.4.5 (a) to (c) are observed; with respect to these provisions, articles are considered to be inner packagings;
- (b) inner packagings meet the conditions of 6.2.1.2 when LQ 1 is shown, and the conditions of 6.2.1.2, 6.2.4.1 and 6.2.4.2 when LQ 2 is shown.

3.4.4 Unless otherwise provided in this Chapter, when one of the codes LQ 3, LQ 20, LQ 21 or LQ 29 is shown in column (7) of Table A in Chapter 3.2 for a given substance, the provisions of other Chapters of ADR do not apply to the transport of that substance or article, provided:

(a) the substance is carried in combination packagings, the following outer packagings being allowed :

steel or aluminium drums with removable head; steel or aluminium jerricans with removable head; plywood or fibre drums; plastics drums or jerricans with removable head; boxes of natural wood, plywood, reconstituted wood, fibreboard, plastics, steel or aluminium;

- (b) the maximum quantity per inner packaging and per package, prescribed for the relevant code in the second and third column of the table in 3.4.6, are not exceeded;
- (c) each package is clearly and durably marked with :
  - (i) the identification number of the goods contained therein, as given in column (1) of Table A in Chapter 3.2, preceded by the letters "UN";
  - (ii) in the case of different goods with different identification numbers within a single package :
    - the identification numbers of the goods contained therein, preceded by the letters "UN", or
    - the letters "LQ"<sup>1</sup>.

The letters "LQ" are an abbreviation of the English words "Limited Quantities".

These markings shall be displayed within a diamond-shaped area surrounded by a line that measures at least  $100 \text{ mm} \times 100 \text{ mm}$ . If the size of the package so requires, the dimensions may be reduced, provided the markings remain clearly visible.

3.4.5 Unless otherwise provided in this Chapter, when one of the codes LQ 4 to LQ 19 and LQ 22 to LQ 28 is shown in column (7) of Table A in Chapter 3.2 for a given substance, the provisions of other Chapters of ADR do not apply to the transport of that substance or article, provided:

- (a) the substance is carried :
  - in combination packagings, corresponding to the prescriptions of 3.4.4 (a), or
  - in metal or plastics inner packagings which are not liable to break or be easily punctured, placed in shrink-wrapped or stretch-wrapped trays;
- (b) the maximum quantity per inner packaging and per package, prescribed for the relevant code in the table in 3.4.6 (in the second and third column in the case of combination packagings, and in the fourth and fifth column in the case of shrink-wrapped or stretch-wrapped trays), are not exceeded;
- (c) each package is clearly and durably marked as indicated in 3.4.4 (c).

#### **3.4.6** Table

Code	Combination packagings		Inner packagings placed in shrink-wrapped or stretch-wrapped trays			
	Inner packaging Maximum contents	Package Maximum gross mass (kg) / contents (l)	Inner packaging Maximum contents	Package Maximum gross mass (kg) / contents (l)		
LQ 0	No exemption under the conditions of 3.4.2.					
LQ 1	120ml	30kg	120ml	20kg		
LQ 2	1000ml	30kg	1000ml	20kg		
LQ 3*	500ml	11	not allowed	not allowed		
LQ 4	31	121	1 l (metal) / 500 ml (plastics)	12 litres and 20 kg		
LQ 5	51	[no value given]	1 l (metal) / 500 ml (plastic)	20 kg		
LQ 6*	51	201	1 l (metal) / 500ml (plastics)	20 litres and 20 kg		
LQ 7*	51	45 1	51	20 kg		
LQ 8	3 kg	12 kg	500 g	12 kg		
LQ 9	6 kg	24 kg	3 kg	20 kg		
LQ 10	500 ml	30 kg	500 ml	20 kg		
LQ 11**	500 g	30 kg	500 g	20 kg		
LQ 12	1 kg	30 kg	1 kg	20 kg		
LQ 13	11	30 kg	11	20 kg		
LQ 14**	25 ml	30 kg	25 ml	20 kg		
LQ 15**	100 g	30 kg	100 g	20 kg		
LQ 16**	125 ml	30 kg	125 ml	20 kg		
LQ 17	500 ml	21	100 ml	21		
LQ 18	1 kg	4 kg	500 g	4 kg		
LQ 19	31	12 l and 20 kg	11	12 l and 20 kg		
LQ 20	100 ml	400 ml	not allowed	not allowed		
LQ 21	500 g	2 kg	not allowed	not allowed		
LQ 22	11	41	500 ml	41 and 20 kg		
LQ 23	3 kg	12 kg	1 kg	12 kg		

Code	Combination packagings		Inner packagings placed in shrink-wrapped or stretch-wrapped trays	
	Inner packaging Maximum contents	Package Maximum gross mass (kg) / contents (l)	Inner packaging Maximum contents	Package Maximum gross mass (kg) / contents (l)
LQ 24	6 kg	24 kg	2 kg	20 kg
LQ 25	1 kg	4 kg	l kg	20 kg
LQ 26	500 ml	21	500 ml	21
LQ 27	6 kg	24 kg	6 kg	20 kg
LQ 28	31	121	31	12 l and 20 kg
LQ 29	500 ml (per apparatus) if packed in leakproof packagings and conforming to 3.4.4 (c) only	2 1 if packed in leakproof packagings and conforming to 3.4.4 (c) only	not allowed	not allowed

\* In the case of homogenous mixtures of Class 3 containing water, the quantities specified relate only to the substance of Class 3 contained in those mixtures.

<sup>\*\*</sup> For Class 5.2 these quantities of substances may be packed together with other articles or substances, provided they will not interact dangerously in the event of leakage.