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Joint Meeting of Experts on the Regulations annexed to the European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways (ADN) *
(Fifth session, 21-25 January 2002)

RESTRUCTURING OF THE REGULATIONS ANNEXED TO ADN

Addendum 4

Part 3, Chapter 3.2 **

Note by the secretariat

In accordance with the work on the restructuring of ADNR, the secretariat proposes the following text as Chapter 3.2 of the Regulations annexed to the restructured ADN.

NOTE: Only one page of Table A is reproduced as an example. Table A will be reproduced in French only.

Table B, which is a list of dangerous goods in alphabetical order, is not reproduced. Table C has the same content as the table in the current Annex B.2, Appendix 4, as amended by document TRANS/WP.15/AC.2/9/Add.1. The other amendments will be the subject of a separate proposal.

^{*} This meeting is organized jointly by the Economic Commission for Europe and the Central Commission for the Navigation of the Rhine.

^{**} Distributed in German by the Central Commission for the Navigation of the Rhine under the symbol CCNR-ZKR/ADN/WP.15/AC.2/2002/1

CHAPTER 3.2

DANGEROUS GOODS LIST

3.2.1 Dangerous goods list in alphabetical order

Explanations concerning Table A:

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

Each column of Table A is dedicated to a specific subject as indicated in the explanatory notes below. The intersection of columns and rows (cell) 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 Column (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 numbers 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 carriage restriction indicated in the explanatory notes is in force.

The applicable general requirements are not referred to in the corresponding cells

Explanatory notes for each column:

Column (1) "UN number/identification number".

Contains the UN number or the identification number:

- of the dangerous substance or article if the substance or article has been assigned its own specific UN number or identification number, or
- of the generic or n.o.s. entry to which the dangerous substances or articles not mentioned by name shall be assigned in accordance with the criteria ("decision trees") of Part 2.

Column (2) "Name and description"

Contains, in upper case characters, the name of the substance or article, if the substance or article has been assigned its own specific UN number or identification 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. This name shall be used as the proper shipping name or, when applicable, as part of the proper shipping name (see 3.1.2 for further details on the 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 carriage 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 a number and one or more letters representing the 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.
- 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.

x =the Class number of the dangerous substance or article, without dividing point if applicable.

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);
- 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. carriage 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. Special provisions specific to inland navigation begin at 800.

Column (7) "Limited quantities"

Contains an alphanumeric code with the following meaning:

"LQ0" signifies that no exemption from the provisions of ADN exists for the dangerous goods packed in limited quantities;

All the other alphanumeric codes starting with the letters "LQ" signify that the provisions of ADN 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, as appropriate, for the relevant code).

Column (8) "Carriage permitted"

This column contains the alphanumeric codes concerning the permitted form of carriage in inland navigation vessels.

If column (8) is empty, the substance or article may only be carried in packages.

If column (8) contains code "B", carriage is permitted in packages or in bulk (see 7.1.1.11).

If column (8) contains code "T", carriage is permitted in packages and in tank vessels. In the event of carriage in tank vessels, the requirements of Table C are applicable (see 7.2.1.21).

If "carriage prohibited" appears in column (8), carriage is not permitted.

If "free" appears in column (8), the substance is not subject to the requirements of ADN.

Column (9) "Equipment required"

This column contains the alphanumeric codes for the equipment required for the carriage of the dangerous substance or article (see 8.1.5).

Column (10) "Ventilation"

This column contains the alphanumeric codes of the special requirements concerning ventilation applicable to carriage with the following meaning:

 alphanumeric codes starting with the letters "VE" mean that special additional conditions are applicable to carriage. These can be found in 7.1.6.12 and establish special requirements.

Column (11) "Provisions concerning loading, unloading and carriage"

This column contains the alphanumeric codes of the special requirements applicable to carriage with the following meaning:

- alphanumeric codes starting with the letters "CO", "ST" and "RA" mean that special additional conditions are applicable to carriage in bulk. These can be found in 7.1.6.11 and establish special requirements.
- alphanumeric codes starting with the letters "LO" mean that special additional conditions are applicable prior to loading. These can be found in 7.1.6.13 and establish special requirements.
- alphanumeric codes starting with the letters "HA" mean that special additional conditions are applicable to the handling and stowage of the cargo. These can be found in 7.1.6.14 and establish special requirements.

 alphanumeric codes starting with the letters "IN" mean that special additional conditions are applicable to the inspection of holds during carriage. These can be found in 7.1.6.16 and establish special requirements.

Column (12) "Number of cones/blue lights"

This column contains the number of cones/lights which should constitute the marking of the vessel during the carriage of this dangerous substance or article (see 7.1.5).

Column (13) "Additional requirements/Remarks"

This column contains additional requirements or observations concerning the carriage of this dangerous substance or article

Table A - Dangerous goods list in numerical order

(1)	(2)		(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
	3.1.2	2.2	2.2	2.1.1.3	5.2.2	3.3	3.4.6	3.2.1	8.1.5	7.1.6	7.1.6	7.1.5	3.2.1
N° d'identification de la matière/N° ONU	Nom et description	Classe	Code de classification	Groupe d'emballage	Étiquettes	Dispositions snéciales	Quantités limitées	Transport admis	Equipement exigé	Ventilation	Mesures pendant chargement / déchargement / transport	Nombre de cônes, feux	Observations
	vapeur à 50 °C supérieure à 110 kPa mais inférieure ou égale à 175 kPa)		F1	II	3	640	LQ6		PP, EX, A			1	
	GOUDRONS LIQUIDES (pression de vapeur à 50 °C inférieure ou égale à 110 kPa)	3	F1	II	3		LQ6		PP, EX, A			1	
	COCETTO EL CIE ES (HOLL VISQUEUL)	_	F1	III	3		LQ7		PP, EX, A			0	
	GOUDRONS LIQUIDES (ayant un point d'éclair inférieur à 23 °C et visqueux selon 2.2.3.1.4)	3	F1	III	3	640	LQ7		PP, EX, A	VE01		0	
	feuilles, tubes, etc)	4.1	F1	III	4.1	502	LQ9		PP			0	
	NAPHTÉNATES DE COBALT EN POUDRE	4.1	F3	III	4.1		LQ9		PP			0	
2002	DÉCHETS DE CELLULOÏD	4.2	S2	III	4.2	526 592	LQ0		PP			0	
	HYDRORÉACTIFS, N.S.A. ou MÉTAUX- ARYLES, HYDRORÉACTIFS, N.S.A.	4.2		Ι	4.2+4.3	274 527	LQ0		PP, EX, A	VE01		0	
	DIAMIDEMAGNÉSIUM	4.2			4.2		LQ0		PP			0	
2005	DIPHÉNYLMAGNÉSIUM	4.2		I	4.2+4.3		LQ0		PP, EX, A	VE01		0	
	MATIÈRES PLASTIQUES À BASE DE NITROCELLULOSE, AUTO- ÉCHAUFFANTES, N.S.A.	4.2	S2	III	4.2	274 528	LQ0		PP			0	

Table A (continued)

(1)	(2)		(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
	3.1.2	2.2	2.2	2.1.1.3	5.2.2	3.3	3.4.6	3.2.1	8.1.5	7.1.6	7.1.6	7.1.5	3.2.1
N° d'identification de la matière/N° ONU	Nom et description	Classe	Code de classification	Groupe d'emballage	Étiquettes	Dispositions spéciales	Quantités limitées	Transport admis	Equipement exigé	Ventilation	Mesures pendant chargement / déchargement / transport	Nombre de cônes, feux	Observations
2008	ZIRCONIUM EN POUDRE SEC	4.2	S4		4.2	524 540	LQ0		PP			0	
2008	ZIRCONIUM EN POUDRE SEC	4.2	S4	II	4.2	524 540	LQ0		PP			0	
2008	ZIRCONIUM EN POUDRE SEC	4.2	S4	III	4.2	540	LQ0		PP			0	
2009	ZIRCONIUM SEC, sous forme de feuilles, de betes ou de fil	4.2	S4	III	4.2	524 592	LQ0		PP			0	
2010	HYDRURE DE MAGNÉSIUM	4.3	W2	I	4.3		LQ0		PP, EX, A	VE01	HA08	0	
2011	PHOSPHURE DE MAGNÉSIUM	4.3	WT2	I	4.3+6.1	802	LQ0		PP, EP, EX, TOX, A	VE01, VE02	HA08	2	

3.2.2 Table B

Dangerous goods list in alphabetical order

3.2.3 Table C

List of dangerous goods accepted for carriage in tank vessels in numerical order

Explanations concerning Table C

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

Each column of Table C is dedicated to a specific subject as indicated in the explanatory notes below. The intersection of columns and rows (cell) 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;
- 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 numbers 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 carriage restriction indicated in the explanatory notes is in force.

The applicable general requirements are not referred to in the corresponding cells.

Explanatory notes for each column:

Column (1) "UN number/identification number"

Contains the UN number or identification number:

- of the dangerous substance or article if the substance or article has been assigned its own specific UN number or identification number, or
- of the generic or n.o.s. entry to which the dangerous substances or articles not mentioned by name shall be assigned in accordance with the criteria ("decision trees") of Part 2.

Column (2) "Name and description"

Contains, in upper case characters, the name of the substance, if the substance or article has been assigned its own specific UN number or identification number or of the generic or n.o.s. entry to which the dangerous substances have been assigned in accordance with the criteria ("decision trees") of Part 2. This name shall be used as the proper shipping name or, when applicable, as part of the proper shipping name (see 3.1.2 for further details on the 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 or carriage 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. 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.

- For dangerous substances of Class 2, the code consists of a number and one or more letters representing the 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.

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 substances are not assigned to packing groups.

Column (5) "Hazards"

This column contains information concerning the hazards inherent in the dangerous substance. They are included on the basis of the danger labels of Table A, column 5. In the case of a chemically unstable substance the code "unst" is added to the information.

x =the Class number of the dangerous substance or article, without dividing point if applicable.

Column (6) "Type of tank vessel"

Contains the type of tank vessel: G, C or N.

Column (7) "Cargo tank design"

Contains information concerning the design of the cargo tank:

- 1. pressure cargo tank
- 2. closed cargo tank
- 3. open cargo tank with flame arrester
- 4. open cargo tank

Column (8) "Cargo tank type"

Contains information concerning the cargo tank type.

- 1. independent cargo tank
- 2. integral cargo tank
- 3. cargo tank with walls distinct from the outer hull

Column (9) "Cargo tank equipment"

Contains information concerning the cargo tank equipment.

- 1. refrigeration system
- 2. heating system
- 3. water-spray system

Column (10) "Opening pressure of high-velocity vent valve in kPa"

Contains information concerning the opening pressure of the high-velocity vent valve in kPa.

Column (11) "Maximum degree of filling (%)"

Contains information concerning the maximum degree of filling of cargo tanks as a percentage.

Column (12) "Density"

Contains information concerning the density of the substance at 20° C. Data concerning the density are for information only.

Column (13) "Type of sampling device"

Contains information concerning the prescribed type of sampling device.

- 1. closed sampling device
- 2. partly closed sampling device
- 3. open sampling device

Column (14) "Pump-room below deck permitted"

Contains an indication of whether a pump-room is permitted below deck.

Yes: pump-room below deck permitted

No: pump-room below deck not permitted

Column (15) "Temperature class"

Contains the temperature class of the substance.

Column (16) "Explosion group"

Contains the explosion group of the substance.

Column (17) "Anti-explosion protection required"

Contains a code referring to protection against explosions.

anti-explosion protection required

anti-explosion protection not required

Column (18) "Equipment required"

This column contains the alphanumeric codes for the equipment required for the carriage of the dangerous substance (see 8.1.5).

Column (19) "Number of cones/blue lights"

This column contains the number of cones/lights which should constitute the marking of the vessel during the carriage of this dangerous substance or article.

Column (20) "Additional requirements/Remarks"

This column contains additional requirements or remarks applicable to the vessel.

The additional requirements or remarks are:

[See Appendix 4 of ADN, with the amendments contained in document TRANS/WP.15/AC.2/9/Add.1 - the additional amendments will be the subject of a separate document.]

Add:

- "28. (a) When UN 2448, molten sulphur is carried, the forced ventilation of the cargo tanks shall be brought into service at latest when the concentration of hydrogen sulphide reaches 1.0 vol %.
- (b) When during the carriage of UN 2448, molten sulphur, the concentration of hydrogen sulphide exceeds 1.85 %, the master shall immediately notify the nearest competent authority.

When a significant increase in the concentration of hydrogen sulphide in a hold space leads it to be supposed that the sulphur has leaked, the cargo tanks shall be unloaded as rapidly as possible. A new load may only be taken on board once the authority which issued the certificate of approval has carried out a further inspection.

- (c) When UN 2448, molten sulphur, is carried, the concentration of sulphur sulphide shall be measured in the vapour phase of the cargo tanks and concentrations of sulphur dioxide and hydrogen sulphide in the hold spaces.
- (d) The measurements prescribed in (c) shall be made every eight hours. The results of the measurements shall be recorded in writing.
- 29. When particulars concerning the vapour pressure or the boiling point are given in column (2), the relevant information shall be added to the proper shipping name in the transport document, e.g.

UN 1224 KETONES, LIQUID, N.O.S., 110 kPa < vp 50 < 175 kPa or

UN2929 TOXIC LIQUID, FLAMMABLE, ORGANIC, N.O.S., boiling point $\leq 60^{\circ}$ C

- 30. When these substances are carried, the hold spaces of open type N tank vessels may contain auxiliary equipment.
- 31. When these substances are carried, the vessel shall be equipped with a rapid blocking valve placed directly on the shore connection."

Table C

List of dangerous goods accepted for carriage in tank vessels in numerical order (Idem Annex B.2, Appendix 4).
