Economic Commission for Europe

Inland Transport Committee

Working Party on the Transport of Dangerous Goods **19 April 2023**

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Working Party on the Transport of Dangerous Goods

Harmonization working group

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Articles and packing groups

Transmitted by the Government of Spain

Revision

Introduction

1.   In the 23rd edition of the Model Regulations, amendments have been included to rationalize the approach on the use of packing groups for articles. In the Model Regulations in 2.0.1.3 (2.1.1.3 of RID/ADR) is indicated that no packing groups are to be assigned to articles. Document ST/SG/AC.10/C.3/2022/17, presented by Germany and Spain, analyzed the assignment of packing groups to articles to ensure that this approach is coherently applied through the Model Regulations.

2.   These amendments, coming from the Model Regulations, will have to be included into the 2025 editions of RID and ADR. Amendments contained in ECE/TRANS/WP.15/AC.1/HAR/2023/1 already include these.

3.   Nevertheless, for RID and ADR, additional analysis has to be made to maintain the principle of not assigning packing groups to articles, as RID/ADR include some additional texts that need also be checked.

4.   As a criteria for deciding which UN numbers should be considered an article, the definition for "article" contained under 2.1.5 (paragraph 2.0.5.1 of the Model Regulations) ("… "article" means machinery, apparatus or other devices containing one or more dangerous goods (or residues thereof) that are an integral element of the article, necessary for its functioning and that cannot be removed for the purposes of carriage"), even if only applicable to section 2.1.5, has served as guidance.

Analysis

5.   Part 2 of RID/ADR does not only give the classification criteria for substances and articles to be carried as dangerous goods, but additionally gives information about some UN numbers which should be considered an article, by subdividing the classes into specific categories (inter alia the category "articles") classifying the collective entries and specifying which of them are articles. Additionally, there exist differences in between Table A in RID/ADR and the Dangerous Goods List in the Model Regulations, that have to be reviewed.

6.   As all this additional information is not contained in the Model Regulations, there is an additional need for reviewing these texts carefully.

<u>RID/ADR 3.2.1</u>

7.   In 3.2.1, the contents of the different columns of Table A is explained. For column (4), it is indicated that:

""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

procedure and criteria of Part 2. Certain articles and substances are not assigned to packing groups."

8.   This text is in contradiction with the one under 2.1.5 and also the one included into 2.1.1.3 A clear reference to the fact that no article has a packing group assigned should be included here. Therefore, the last sentence is proposed to be modified as indicated below in **Proposal 1.**

UN 3343

9.   UN 3343 NITROGLYCERIN MIXTURE, DESENSITIZED, LIQUID, FLAMMABLE, N.O.S. with not more than 30 % nitroglycerin, by mass, has assigned the classification code D "Liquid desensitized explosives" and is the only UN number that is not an article and does not belong to one of those classes which do not have packing group assigned that does nevertheless not have a packing group included into column (5) of Table A, as the assignment of the packing group depends on the competent authority, as indicated in SP 278. Therefore, it would perhaps be convenient to include a reference to this special provision in column (5). **See Proposal 2.**

Polyester resin kits

10.   In 2.2.3.3 for UN 3269 POLYESTER RESIN KIT, liquid base material (2 entries) the classification code assigned is "F3", which identifies this UN number as an article. Regarding the discussion in the last meeting of the Subcommittee for the Transport of Dangerous Goods, "It was noted that resin kits were not comparable to chemical kits or first aid kits, as these could contain a wide range of substances", and it was considered that these kits should not be considered articles (See. Parag. 31 SG/AC.10/C.3/122). Therefore, it is necessary to change the classification code for this UN number. **See Proposal 3.**

11.   In 2.2.41.3 for UN 3527 POLIESTER RESIN KITS, solid basic material (2 entries) the code classification assigned is "F4". The same situation as for the previous UN number presents itself, and this classification code should be changed. **See Proposal 4.**

UN 2870

12.   Following the amendments adopted for the Model Regulations, UN 2870 ALUMINIUM BOROHYDRIDE IN DEVICES is considered an article and the PG for this UN number must be deleted (see SG/AC.10/50/Add.1). Additionally, in 2.2.42.1.2 a new classification code for articles has to be added. **See proposal 5.**

UN 1700, 2016 and 2017

13.   Several UN numbers (UN 1700 TEAR GAS CANDLES, 2016 AMMUNITION, TEAR-PRODUCING, NON-EXPLOSIVE without burster or expelling charge, non-fuzed and 2017 AMMUNITION, TOXIC, NON-EXPLOSIVE without burster or expelling charge, non-fuzed) have no packing group assigned, as they are articles, but the classification code assigned does not indicate they are articles. The classification codes assigned have to be changed, as well as the classification list under 2.2.61.1.2 and the corresponding list of collective entries. **See Proposal 6.**

UN 1774

14.   In Table A UN 1774 ONU 1774 FIRE EXTINGUISHER CHARGES, corrosive liquid, has a packing group assigned, and in the discussions in the Subcommittee around this topic it was considered that it is correct to not consider this UN number as an article. Therefore, the classification code assigned has to be reviewed, as it has a classification code "C11" as article . **See Proposal 7.**

General review of part 2

15.   After reviewing part 2, it has been observed that in the list of collective entries as well as the general provisions relating to classification, the articles are not always included. Therefore, additional amendments have been proposed to include these. **See Proposal 8.**

Proposals

Proposal 1

16.   Modify the description for (4) under 3.2.1 to read as follows:

""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 procedure and criteria of Part 2. ~~Certain A~~articles and **certain** substances are not assigned to packing groups."

Proposal 2

17.   Modify TABLE A for UN 3343 to read as follows (other columns unchanged):

3343	NITROGLYCERIN MIXTURE, DESENSITIZED, LIQUID, FLAMMABLE, N.O.S. with not more than 30 % nitroglycerin, by mass	3	D	**See SP 278**

Proposal 3

18.   In 2.2.3.3 modify the List of collective entries /F3 Articles:

~~3269 POLYESTER RESIN KIT, liquid base material~~

19.   In 2.2.3.3 modify the List of collective entries /F1 Flammable liquids:

3269 POLYESTER RESIN KIT, liquid base material

21.   Modify TABLE A for UN 3269 to read as follows (other columns unchanged):

3269	POLYESTER RESIN KIT, liquid base material	3	F~~3~~**1**	II
3269	POLYESTER RESIN KIT, liquid base material	3	F~~3~~**1**	III
(RID:) 3269	POLYESTER RESIN KIT, liquid base material (viscous according to 2.2.3.1.4)	3	F~~3~~**1**	III

Proposal 4

22.   In 2.2.41.3 modify the List of collective entries/ F4 Articles:

~~3527 POLYESTER RESIN KIT, solid base material~~

23.   In 2.2.41.3 modify the List of collective entries/ F1 Organic:

3527 POLYESTER RESIN KIT, solid base material

25.   Modify TABLE A for UN 3527 to read as follows (other columns unchanged):

3527	POLYESTER RESIN KIT, solid base material	4.1	F~~4~~**1**	II
3527	POLYESTER RESIN KIT, solid base material	4.1	F~~4~~**1**	III

Proposal 5

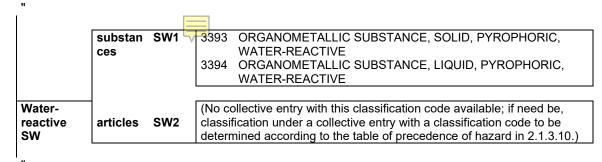26.   In 2.2.42.1.2 modify the classification to read as follows:

SW Substances liable to spontaneous combustion, which, in contact with water, emit flammable gases **and articles containing such substances**
SW1 Substances
SW2 Articles

27.   In 2.2.42.3, as a consequential amendment, it would be necessary to include the collective entries present as SW1. Additionally, it would be recommended to show the entries in the order of increasing UN number (S2, S3, S4, S5, SW, SC4).

2.2.42.3   Amend he branch "Water-reactive SW" to read as follows:

"

	substances	SW1	3393	ORGANOMETALLIC SUBSTANCE, SOLID, PYROPHORIC, WATER-REACTIVE
			3394	ORGANOMETALLIC SUBSTANCE, LIQUID, PYROPHORIC, WATER-REACTIVE
Water-reactive SW	articles	SW2		(No collective entry with this classification code available; if need be, classification under a collective entry with a classification code to be determined according to the table of precedence of hazard in 2.1.3.10.)

"

28.   Modify TABLE A for UN 2870, 2210, 3393 and 3394 to read as follows (other columns unchanged):

2870	ALUMINIUM BOROHYDRIDE IN DEVICES	4.2	SW**2**	~~I~~
2210	MANEB or MANEB PREPARATION with not less than 60 % maneb	4.2	SW**1**	III
3393	ORGANOMETALLIC SUBSTANCE, SOLID, PYROPHORIC, WATER-REACTIVE	4.2	SW**1**	I
3394	ORGANOMETALLIC SUBSTANCE, LIQUID, PYROPHORIC, WATER-REACTIVE	4.2	SW**1**	I

Proposal 6

29.   Modify 2.2.61.1.2 adding:

Substances **and articles** of Class 6.1 are subdivided as follows:

TF Toxic substances, flammable **and articles containing such substances**
TF4 Articles

TC Toxic substances, corrosive **and articles containing such substances**
TC5 Articles

30.   Modify the list of collective entries in 2.2.61.3 accordingly:

Toxic substances without subsidiary hazard(s) **and articles containing such substances**
Toxic substances with subsidiary hazard(s) **and articles containing such substances**
TF3 Solid ~~1700 TEAR GAS CANDLES~~
TF4 Articles 1700 TEAR GAS CANDLES

After the branch for "solid TF3", insert the following new branch:

"

| | articles | **TF4** | 1700 | TEAR GAS CANDLES |

"

After the branch "Corrosive TC inorganic solid TC4", insert the following new branch:

articles	TC5	(No collective entry with this classification code available; if need be, classification under a collective entry with a classification code to be determined according to the table of precedence of hazard in 2.1.3.10.)

"

32.   Modify TABLE A for UN 1700, 2016 and 2017 to read as follows (other columns unchanged):

1700	TEAR GAS CANDLES	6.1	TF~~3~~4	

~~2016~~	AMMUNITION, TOXIC, NON-EXPLOSIVE without burster or expelling charge, non-fuzed	6.1	T~~2~~10	

2017	AMMUNITION, TEAR-PRODUCING, NON-EXPLOSIVE without burster or expelling charge, non-fuzed	6.1	TC~~2~~5	

Proposal 7

33.   Modify TABLE A for UN 1774 to read as follows (other columns unchanged):

1774	FIRE EXTINGUISHER CHARGES, corrosive liquid	8	~~C11~~ **C9**	II

34.   Additionally, it would be recommended to show the entries in 2.2.8.3 in the order of increasing UN number (C9, C10, C11, CF1, CT1).

Proposal 8

35.   Modify the indicated paragraphs as follows:

xx.   In 2.2.41.1.2 F Flammable solids, without subsidiary hazard **and articles containing such substances**:

36.   In 2.2.42.1.2 The substances and articles of Class 4.2 are subdivided as follows:

S Substances liable to spontaneous combustion, without subsidiary hazard **and articles containing such substances**

37.   In 2.2.42.3 List of collective entries, modify to read as follows:

Substances liable to spontaneous combustion **and articles containing such substances**

38.   In 2.2.43.3 List of collective entries, modify to read as follows:

Substances which, in contact with water, emit flammable gases **and articles containing such substances**

39.   In 2.2.61.1.2, modify to read as follows:

T Toxic substances without subsidiary hazard **and articles containing such substances**

40.   In 2.2.61.3 List of collective entries, modify to read as follows:

Toxic substances without subsidiary hazard(s) **and articles containing such substances**

41.   Additionally, other amendments might be interesting, but do not seem to be completely necessary. The Harmonization working group should take decisions on how to treat these cases. These are the following:

- 2.2.42.1.2 The substances and articles of Class 4.2 are subdivided as follows:
  SO Substances **and articles** liable to spontaneous combustion, oxidizing;
  ST Substances **and articles** liable to spontaneous combustion, toxic
  SC Substances **and articles** liable to spontaneous combustion, corrosive

- Similarly, in 2.2.43.1.2, add "and articles " in the subclassifications which do not contain this reference?
- Similarly, in 2.2.61.1.2, add "and articles" in the subclassifications which do not contain this reference?
- Similarly, in 2.2.8.1.4.1, add "and articles" in the subclassifications which do not contain this reference?

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