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Working Party on the Transport of Dangerous Goods

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

Geneva, 11-15 September 2006
Agenda item 5

PROPOSALS FOR AMENDMENTS TO RID/ADR/ADN

Carriage of substances presenting combinations of hazards of Classes 4.3 and 4.1 (UN No. 3122) or Classes 4.3 and 4.2 (UN No. 3135)

Proposal submitted by the Government of Germany

SUMMARY

Executive summary: The above-mentioned UN Nos. presenting combinations of hazards of Classes 4.3 and 4.1 or Classes 4.3 and 4.2 are subject to a prohibition on carriage.

In order to ensure harmonization with the IMDG Code and make possible the carriage of substances presenting the combinations of hazards referred to above, this prohibition should be replaced by requirements for carriage.

Action to be taken: Determination of the conditions of carriage for the UN Nos. referred to above and amendment of the relevant sections in Chapter 2.2.

Related documents: TRANS/WP.15/AC.1/2002/8-OCTI/RID/GT-III/2002/8 (Switzerland)
TRANS/WP.15/AC.1/90-OCTI/RID/GT-III/2002-B, para. 26
TRANS/WP.15/AC.1/2003/62-OCTI/RID/GT-III/2003/62 (Germany/Switzerland)
TRANS/WP.15/AC.1/96-OCTI/RID/GT-III/2004-A, paras. 8-11.

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Introduction

1. In document TRANS/WP.15/AC.1/2002/8-OCTI/RID/GT-III/2002/8, which was discussed at the Joint Meeting in September 2002, the representative of Switzerland asked why substances classified under UN Nos. 3132 and 3133 were not admitted for carriage in RID/ADR, despite being allowed under the UN Model Regulations and the IMDG Code.

2. The representative of Germany stated that similar cases had caused problems in his country and announced that he would submit a proposal on this matter to the Joint Meeting. The proposal would also refer to other UN Nos. prohibited by RID/ADR. The Joint Meeting further noted that prohibition was no longer justified for UN No. 3132; however, UN No. 3133 posed problems because of the combination of risks of Classes 4.3 and 5.1 and recourse to the competent authority should be envisaged (see TRANS/WP.15/AC.1/90-OCTI/RID/GT-III/2002-B, para. 26).

3. The Governments of Switzerland and Germany therefore submitted document TRANS/WP.15/AC.1/2003/62-OCTI/RID/GT-III/2003/62, which was examined by the Joint Meeting in September 2004.

4. Several delegations were in favour of introducing provisions for substances sharing properties of Class 4.3 and either Class 4.1 or Class 4.2 (UN Nos. 3132 and 3135), since the UN Model Regulations already made provision for conditions of carriage. However, they did not favour the idea of referring to the competent authority for classification or packing and suggested that conditions specific to RID and ADR should be envisaged (see TRANS/WP.15/AC.1/96-OCTI/RID/GT-III/2004-A, para. 8).

5. The representative of Germany said that he would submit a relevant proposal to the Joint Meeting.

6. In the meantime, Germany had recorded a significant increase in the number of requests for carriage of substances sharing the properties of Classes 4.3 and 4.2 or Classes 4.3 and 4.1. The classification of substances described as belonging to Class 4.3 in Table A of Chapter 3.2, which present additional hazards not referred to in the table, remains problematic. Such is the case for aluminium powder, uncoated (UN No. 1396), which also has the properties of Class 4.1, or magnesium powder (UN No. 1418), which can present a subsidiary Class 4.1 risk instead of the Class 4.2 risk envisaged in the table.

7. Germany is of the view that the classification in Class 4.3 of coated aluminium powder, which, in addition to its Class 4.3 properties, possesses Class 4.1 properties under UN No. 1396, has no safety implications, because, according to the table of precedence of hazards in subsection 2.1.3.10, Class 4.3 takes precedence over Class 4.1. Furthermore, it is also usual for metallic powders to have flammable properties. A special provision should therefore be added to UN No. 1396 to explain the classification.

8. The same applies to magnesium powder, which shares the properties of Class 4.3 and Class 4.1 (rather than Class 4.2). Germany is of the view that the carriage of magnesium powder in the conditions envisaged for UN No. 1418 would not compromise safety. This should accordingly be clarified by means of an appropriate special provision.

9. RID/ADR/ADN already contains a range of substances with the properties of Classes 4.3 and 4.2 or 4.3 and 4.1, which despite this are not prohibited for carriage, for example UN Nos. 2210 and 2870 (combining 4.2 and 4.3), UN No. 1340 (combining 4.3 and 4.1), and UN Nos. 1418, 1436 and 3209 (combining 4.3 and 4.2).

10. Additionally, new UN Nos. have recently been incorporated into RID/ADR/ADN for the carriage of substances with various combinations of hazards in Classes 4.1, 4.2 and 4.3 (including substances in Class 4.2 of Packing Group I). These headings cover substances with properties similar to those of UN Nos. 3132 and 3135.

Proposals

11. In the table in Chapter 3.2, delete "CARRIAGE PROHIBITED" for UN Nos. 3132 and 3135.

12. The conditions of carriage to be determined can be found in the table annexed to this document.

13. As a result of the amendments proposed above, Chapter 2.2 should be amended as follows.

14. The following items should be deleted from subsection 2.2.43.2:

> "Water-reactive solids, flammable, assigned to UN No. 3132" and "and water-reactive solids, self-heating, assigned to UN No. 3135".

15. In subsection 2.2.43.3, delete the text in parentheses under "Solid, flammable, WF2" referring to UN No. 3132 (Note by OTIF secretariat: This heading has been omitted from the French version of RID; it will be restored in an erratum).

16. In subsection 2.2.43.3, delete the text in parentheses under "Solid, self-heating, WS" referring to UN No. 3135.

17. In 5.3.2.3.2, the wording of the following hazard identification number should be amended to read:

> "423 solid which reacts with water, emitting flammable gases, or flammable solid which reacts with water, emitting flammable gases or self-heating solid which reacts dangerously with water, emitting flammable gases."

18. In 5.3.2.3.2, the wording of the following hazard identification number should be amended to read:

> "X423 solid which reacts dangerously with water,[1)] emitting flammable gases, or flammable solid which reacts dangerously with water,[1)] emitting flammable gases, or self-heating solid which reacts dangerously with water,[1)] emitting flammable gases."

19. When document TRANS/WP.15/AC.1/2003/62 -OCTI/RID/GT-III/2003/62 was drafted, it was noted that different terminology had been used in Chapters 3.2 and 5.3. Chapter 3.2 refers to "oxidizing solid" while Chapter 5.3 refers to "oxidizing (fire intensifying)". It is therefore proposed that the expression "(fire-intensifying)" should be deleted from the following hazard identification numbers: 225, 25, 265, 50, 539, 55, 556, 558, 559, 56, 568, 58, 59, 65, 665, 75, 85, 856 and 885.

20. To resolve the above-mentioned problems of UN No. 1396 (aluminium powder, uncoated), a new special provision could be added as follows:

> "570 Aluminium powders, uncoated, that comply with the criteria for Class 4.1 in addition to Class 4.3, may also be assigned to this heading. Supplementary marking for Class 4.1 is not required."

Note by UNECE secretariat: If adopted, the secretariat suggests that the proposal be worded as follows:

> "570 Aluminium powders, uncoated, belonging to Class 4.3 that present a subsidiary risk under Class 4.1 may also be classified under this heading without the need to take account of this subsidiary risk when applying the provisions of RID/ADR/ADN."

21. To resolve the above-mentioned problems of UN No. 1418 (magnesium powder), a new special provision could be added. The same problem could arise in respect of UN No. 1436 (zinc powder) and should be resolved likewise. The special provision should read as follows:

> "571 Magnesium powders (UN No. 1418) or zinc powders (UN No. 1436) that comply with the criteria for Class 4.1 in addition to Class 4.3, but which do not comply with the criteria for Class 4.2, may also be assigned to this heading. Class 4.2 supplementary marking should also be applied."

Note by UNECE secretariat: If adopted, the secretariat suggests that the proposal be worded as follows:

> "571 Magnesium powders and zinc powders belonging to Class 4.3 that present no subsidiary risk under Class 4.2, yet present a subsidiary risk under Class 4.1, may be assigned to UN Nos. 1418 and 1436 respectively without the need to reflect the subsidiary risk as prescribed by the provisions of RID/ADR/ADN, i.e. they may be carried under these headings as Class 4.3 substances with Class 4.2 subsidiary risk, but without Class 4.1 subsidiary risk."

Justification

Impact on safety:	The proposed amendments do not compromise safety because there are already a number of headings in RID/ADR/ADN relating to similar properties and this causes no problem.

The clarifications in respect of specifically mentioned substances such as UN No. 1396 (aluminium powder, uncoated), which have Class 4.1 properties in addition to Class 4.3 properties, or UN Nos. 1418 (magnesium powder) and 1436 (zinc powder), which have Class 4.3 properties and, instead of additional Class 4.2 properties, Class 4.1 properties, do not threaten safety, given that these substances have been carried in this way for years.

Feasibility: Considering that RID/ADR/ADN already contains a number of substances with Class 4.3 and Class 4.2 properties and Class 4.3 and Class 4.1 properties, and which despite this are not prohibited for carriage, there is nothing to prevent the carriage of such substances, solutions and mixtures.

For substances such as UN No. 1396 (aluminium powder, uncoated), which, in addition to Class 4.3 properties possess Class 4.1 properties, or UN Nos. 1418 (magnesium powder) and 1436 (zinc powder), which have Class 4.3 properties and, instead of Class 4.2 properties, Class 4.1 properties, clarification will enable the user to classify the substance more easily.

Applicability: Germany has made a number of requests to carry substances sharing the properties of Classes 4.3 and 4.2 or Classes 4.3 and 4.1.

Annex

AMENDMENTS TO TABLE A OF RID/ADR

(1)	(2)	(3a)	(3b)	(4)	(5)	(6)	(7)	(8)	(9a)	(9b)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)
3132	Water-reactive solid, flammable, N.O.S.	4.3	WF2	I	4.3 + 4.1	274	LQ0	P403 IBC99		MP2			S10AN L10DH	TU4 TU14 TU22 TU38 (RID only) TE21 TE22 (RID only) TM2	AT	0 (B1E)	W1/ V1		CW23/ CV23	S20	X423
3132	Water-reactive solid, flammable, N.O.S.	4.3	WF2	II	4.3 + 4.1	274	LQ11	P410 IBC04		MP14	T3	TP33	SGAN L4DH	TU14 TE21 TM2	AT	0 (D1E)	W1/ V1		CW23/ CV23		423
3132	Water-reactive solid, flammable, N.O.S.	4.3	WF2	III	4.3 + 4.1	274	LQ12	P410 IBC06		MP14	T1	TP33	SGAN L4DH	TU14 TE21 TM2	AT	0 (E)	W1/ V1		CW23/ CV23		423
3135	Water-reactive solid, self-heating, N.O.S.	4.3	WS	I	4.3 + 4.2	274	LQ0	P403		MP2			S10AN L10DH	TU4 TU14 TU22 TU38 (RID only) TE21 TE22 (RID only) TM2	AT	1 (B1E)	W1/ V1		CW23/ CV23	S20	X423
3135	Water-reactive solid, self-heating, N.O.S.	4.3	WS	II	4.3 + 4.2	274	LQ11	P410 IBC05		MP14	T3	TP33	SGAN L4DH	TU14 TE21 TM2	AT	2 (D1E)	W1/ V1		CW23/ CV23		423
3135	Water-reactive solid, self-heating, N.O.S.	4.3	WS	III	4.3 + 4.2	274	LQ12	P410 IBC08	B4	MP14	T1	TP33	SGAN L4DH	TU14 TE21 TM2	AT	3 (E)	W1/ V1		CW23/ CV23		423