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**Economic Commission for Europe****Inland Transport Committee****Working Party on the Transport of Dangerous Goods****Joint Meeting of the RID Committee of Experts and the  
Working Party on the Transport of Dangerous Goods**

Bern, 20-24 March 2023

Item 5 (a) of the provisional agenda

**Proposals for amendments to RID/ADR/ADN:****Pending issues****Special provisions 532 and 543 in RID/ADR/ADN****Note by the secretariat<sup>\*, \*\*</sup>****I. Background**

1. In 2022, the secretariat received a query asking whether special provision (SP) 532 (currently assigned to UN 2073) and SP 543 (currently assigned to UN 2672) might have been accidentally swapped in the current text of RID/ADR/ADN. The question was whether SP 532 should be assigned to UN 2672 and SP 543 to UN 2073.
2. After close reading, the secretariat was of the opinion that there was no error and that the special provisions were correctly assigned. The secretariat understood that these special provisions were simply notes to remind the reader about other UN numbers which might be applicable. Hence, for instance, the special provision for UN 2073 (SP 532) reminds the reader that ammonia solution with  $10\% \leq \text{ammonia} \leq 35\%$ , should be classified as UN 2672 (Class 8) instead of as UN 2073 (Class 2).
3. The secretariat submitted informal document INF.14 to the 2022 spring session of the Joint Meeting with an analysis of the issue. The Joint Meeting agreed with the secretariat's interpretation and concluded that these special provisions could lead to misinterpretation. However, opinions were divided as to whether it would be best to amend these two special provisions, and how, or to simply remove them. Some delegations preferred to delete both special provisions, others noted that it might be useful to keep the comment on solutions with  $\text{ammonia} \leq 10\%$  and some preferred to merge all the information contained in both special provisions into a single special provision and apply it to all entries for ammonia solutions. The Joint Meeting requested the secretariat to submit an official proposal to a future session with several options, so that a decision could be taken.

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\* A/77/6 (Sect. 20), table 20.6

\*\* Circulated by the Intergovernmental Organisation for International Carriage by Rail (OTIF) under the symbol OTIF/RID/RC/2023/1.

4. Below, section II reproduces the analysis of the situation that was already presented in the 2022 spring session, with some additional comments, section III proposes several solutions and section IV asks the Joint Meeting for its opinion on further actions that might be taken.

## II. Introduction

### A. Current situation

5. For ease of reference, the concerned UN numbers and special provisions are reproduced as contained in RID/ADR/ADN 2023. For the UN numbers, only columns (1) to (6) are shown. For the special provisions, only SPs 532 and 543 are reproduced, as SPs 23 and 379 are unrelated to the issues discussed here.

(1)	(2)	(3a)	(3b)	(4)	(5)	(6)
1005	AMMONIA, ANHYDROUS	2	2TC		2.3 +8 (RID:) +13	23 379
2073	AMMONIA SOLUTION, relative density less than 0.880 at 15 °C in water, with more than 35 % but not more than 50 % ammonia	2	4A		2.2 (RID:) +13	532
2672	AMMONIA SOLUTION, relative density between 0.880 and 0.957 at 15 °C in water, with more than 10 % but not more than 35 % ammonia	8	C5	III	8	543
3318	AMMONIA SOLUTION, relative density less than 0.880 at 15 °C in water, with more than 50 % ammonia	2	4TC		2.3 +8 (RID:) +13	23

532 UN No. 2672 ammonia solution containing not less than 10 % but not more than 35 % ammonia is a substance of Class 8.

543 UN No. 1005 ammonia, anhydrous, UN No. 3318 ammonia solution with more than 50 % ammonia and UN No. 2073 ammonia solution, with more than 35 % but not more than 50 % ammonia, are substances of Class 2. Ammonia solutions with not more than 10 % ammonia are not subject to the requirements of RID/ADR/ADN.

### B. Historical background

6. The text currently contained in SPs 532 and 543 was introduced in RID/ADR 1993 as notes to marginals (2)201<sup>†</sup> and (2)801 and after some changes it was transferred as SPs 532 and 543 when the RID/ADR was restructured for RID/ADR 2001. To understand the reasoning behind the wording of the notes, it is useful to recall that before the restructuring of RID/ADR, these notes were in chapters which introduced substances and provisions by class. Therefore, the note in marginal (2)201, which was in a chapter for Class 2, had a reference to substances in Class 8 and vice versa. This reasoning is out of place in the current version of RID/ADR/ADN, where special provisions are assigned to individual UN numbers.

7. These special provisions are identical in RID, ADR and ADN and are not present in the Model Regulations.

<sup>†</sup> Marginal 2201 in ADR 1993 corresponded to marginal 201 in RID 1993.

### C. Issues with SPs 532 and 543

8. The following issues have been identified:
  - (a) The wording is confusing and can lead to misinterpretation.
  - (b) SP 532 contains the phrase “not less than 10 %”, whereas UN 2672 specifies “more than 10 %”. These two wordings are not equivalent.
  - (c) The SPs do not mention any limits on relative density, but the descriptions for UN Nos. 2073, 2672 and 3318 do have limits on relative densities and, furthermore, they are not the same for all three UN numbers.
  - (d) There seems to be an inconsistency about which UN numbers are mentioned in each special provision:
    - (i) the special provision for UN 2073 mentions only UN 2672;
    - (ii) the special provision for UN 2672 mentions UN Nos. 1005, 2073 and 3318, but also mentions the case of ammonia solutions with ammonia  $\leq 10\%$ ; and
    - (iii) UN Nos. 1005 and 3318 do not have any special provision mentioning other UN numbers.

### III. Proposals

9. Below are four alternative proposals to solve the issues identified above. They are presented roughly in the order of preference, considering the analysis and the comments received when INF.14 was initially presented.
10. **Proposal 1** replaces the current two special provisions by a single special provision that compiles all references and comments and would be assigned to all affected UN numbers (also including UN Nos. 1005 and 3318). It would avoid misunderstandings and inconsistencies.
11. **Proposal 2** is to simply delete the special provisions. It therefore avoids any misinterpretation and aligns RID/ADR/ADN with the Model Regulations. It must be stressed that deleting the special provisions does not change the requirements of the regulations, as these special provisions are merely informative and do not impose or remove any requirements.
12. **Proposal 3** deletes SP 532 and amends SP 543 to keep only the comment on ammonia solutions with ammonia  $\leq 10\%$ .
13. **Proposal 4** maintains the existing special provisions with some adjustments:
  - (a) The wording is adjusted to correct the texts and avoid misunderstandings.
  - (b) For UN 2073 (SP 532), additionally to the current reference to UN 2672, a reference to UN 3318 is added, as its ammonia content is immediately above the ammonia content in this entry.
  - (c) For UN 2672 (SP 543), reference is made only to UN 2073, as its ammonia content is directly above the ammonia content in this entry, and the comment on ammonia solutions with ammonia  $\leq 10\%$  is maintained. The reference to UN 3318 is deleted, as its ammonia content is not close to the ammonia content of this entry and the reference to anhydrous ammonia (UN 1005) is also removed.
  - (d) No special provision is added to UN Nos. 1005 or 3318, as the intent of this proposal is to keep changes to a minimum. However, for consistency, the Joint Meeting may consider assigning a new special provision at least to UN 3318 with a reference to UN 2672.

**A. Proposal 1 (merge special provisions and apply to all ammonia entries)****Chapter 3.2, Table A**

For UN Nos. 1005 and 3318, in column (6), add “532”.

For UN 2672, in column (6), replace “543” by “532”.

**Chapter 3.3**

SP 532 Amend to read as follows:

“532 Ammonia solutions with a relative density between 0.880 and 0.957 at 15 °C in water and with more than 10 % but not more than 35 % ammonia, are classified under Class 8 as UN 2672. Ammonia solutions with a relative density less than 0.880 at 15 °C in water and with more than 35 % but not more than 50 % ammonia, are classified under Class 2 as UN 2073. Ammonia solutions with a relative density less than 0.880 at 15 °C in water and with more than 50 % ammonia, are classified under Class 2 as UN 3318. Ammonia solutions with not more than 10 % ammonia are not subject to the requirements of RID/ADR/ADN. Anhydrous ammonia is classified under Class 2 as UN 1005.”

SP 543 Delete and add “*Deleted.*”.

**B. Proposal 2 (delete both special provisions)****Chapter 3.2, Table A**

For UN 2073, in column (6), delete “532”.

For UN 2672, in column (6), delete “543”.

**Chapter 3.3**

SP 532 Delete and add “*Deleted.*”.

SP 543 Delete and add “*Deleted.*”.

**C. Proposal 3 (only keep ≤ 10 % ammonia comment)****Chapter 3.2, Table A**

For UN 2073, in column (6), delete “532”.

**Chapter 3.3**

SP 532 Delete and add “*Deleted.*”.

SP 543 Amend to read as follows:

“543 Ammonia solutions with not more than 10 % ammonia are not subject to the requirements of RID/ADR/ADN.”

**D. Proposal 4 (amend existing special provisions)****Chapter 3.3**

SP 532 Amend to read as follows:

“532 For ammonia solutions with a relative density between 0.880 and 0.957 at 15 °C in water and with more than 10 % but not more than 35 % ammonia, see UN 2672. For ammonia solutions with a relative density less than 0.880 at 15 °C in water and with more than 50 % ammonia, see UN 3318.”

- SP 543 Amend to read as follows:
- “543 For ammonia solutions with a relative density less than 0.880 at 15 °C in water and with more than 35 % but not more than 50 % ammonia, see UN 2073. Ammonia solutions with not more than 10 % ammonia are not subject to the requirements of RID/ADR/ADN.”

#### **IV. Final considerations**

14. If the Joint Meeting does not choose proposal 2, which would align RID/ADR/ADN with the Model Regulations, it may consider whether a proposal to include the retained special provision(s) into the Model Regulations is needed.

15. During the discussion of informal document INF.14 at its spring session of 2022, the Joint Meeting noted that as part of the restructuring of RID/ADR, many marginals containing references to the assignment to other UN numbers had been transferred into special provisions and would need to be reviewed too. However, it agreed to postpone the analysis of other special provisions until the issue with SPs 532 and 543 had been resolved. Taking this into account, the Joint Meeting may discuss a possible way forward for these other special provisions once it has taken a decision on the above proposals.

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