

Economic Commission for Europe

Inland Transport Committee

Working Party on the Transport of Dangerous Goods

28 February 2022

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

Bern, 14–18 March 2022

Item 4 of the provisional agenda

Interpretation of RID/ADR/ADN

Special provisions 532 and 543 in RID/ADR/ADN

Note by the secretariat

I. Introduction

1. The secretariat recently received a query asking whether special provisions (SP) 532 (currently assigned to UN 2073) and 543 (currently assigned to UN 2672) might be accidentally swapped in the current text of ADR. The question is whether SP 532 should be assigned to UN 2672 and SP 543 to UN 2073.

2. Below, for ease of reference, the concerned UN numbers and SPs are reproduced as contained in ADR 2021. For the UN numbers, only columns (1) to (6) are shown. For the SP, 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	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	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	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 ADR.

3. On close reading of the two SPs, it is the opinion of the secretariat that there is no error and that they are correctly assigned as they currently stand. These special provisions are 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).

4. However, even if the notes are correctly assigned, the secretariat believes that as currently worded, SPs 532 and 543 present a number of issues.

5. Some historical background: this text was introduced in ADR 1993 as notes to marginals 2201 and 2801 and after some changes it was transferred as SPs 532 and 543 when the ADR was restructured for ADR 2001. Currently, these special provisions are identical in RID, ADR and ADN.

II. Issues with SPs 532 and 543

6. 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 concerning which UN numbers are mentioned in each SP:
 - (i) the SP for UN 2073 mentions only UN 2672;
 - (ii) the SP provision for UN 2672 mentions UN Nos. 1005, 2073 and 3318 and it also mentions the case of ammonia solutions with $\text{ammonia} \leq 10\%$; and
 - (iii) UN Nos. 1005 and 3318 do not have any SP mentioning other UN numbers.

III. Possible solutions

7. In order to address issues (a), (b) and (c) raised above, SPs 532 and 543 could be reworded. As an example, see below some options for SP 532:

532 (option 1) Ammonia solutions with relative density less than 0.880 at 15 °C in water and containing more than 10 % but not more than 35 % ammonia are classified under Class 8 as UN No. 2672.

532 (option 2) For ammonia solutions with relative density less than 0.880 at 15 °C in water and containing more than 10 % but not more than 35 % ammonia, see UN No. 2672.

532 (option 3) For ammonia solutions with relative density < 0.880 at 15 °C in water and $10\% < \text{ammonia} \leq 35\%$, see UN No. 2672.

8. Moreover, if issue (d) identified above is considered to be a problem, two solutions can be envisaged: either having a different SP assigned to each of the four UN numbers mentioning the other three UN numbers; or having a single SP assigned to all four UN numbers which mentions the four UN numbers.

9. Finally, given that SPs 532 and 543 are not included in the Model Regulations and that they do not impose any additional requirements, it is worth considering whether they are indeed necessary or if they could be deleted altogether.

IV. Questions for the Joint Meeting

10. The secretariat would like to pose the following questions to the Joint Meeting:

Question 1: Does the Joint Meeting agree that the objective of SPs 532 and 543 is to remind users of other similar UN numbers and that they are therefore correctly assigned?

Question 2: Given that SPs 532 and 543 are not included in the Model Regulations and that they do not impose any additional requirements, does the Joint Meeting think that they should be retained?

Question 3: If the answer to the above questions is affirmative, would any of the approaches discussed in section III be appropriate?

V. Actions to be taken

11. Following the feedback received from the Joint Meeting, the secretariat will prepare an official proposal for the next session of the Joint Meeting, if appropriate.
