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Proposals for amendments to RID/ADR/ADN: new proposals

Different names and description for UN numbers in between Model Regulations and RID/ADR

Transmitted by the Government of Spain*, **

Summary

- Executive summary:** Study the differences of name and description for several UN numbers in between UN Model Regulations and RID/ADR
- Action to be taken:** Discuss possible harmonisation with the UN Model Regulations.

Introduction

1. There are different cases where the name and description of the UN numbers is not the same in between Model Regulations and RID/ADR. In most cases, this happens when RID/ADR “subdivides” one UN number in different cases, for different packing groups or circumstances, for example:

UN Number	Model Regulations	RID/ADR	P G
1169	EXTRACTS, AROMATIC,	EXTRACTS, AROMATIC, LIQUID (vapour pressure at 50 °C more than 110 kPa)	II

* In accordance with the programme of work of the Inland Transport Committee for 2018-2019, (ECE/TRANS/2018/21/Add.1, Cluster 9, (9.2)).

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		EXTRACTS, AROMATIC, LIQUID (vapour pressure at 50 °C not more than 110 kPa)	II
		EXTRACTS, AROMATIC, LIQUID	III
		EXTRACTS, AROMATIC, LIQUID (having a flash-point below 23 °C and viscous according to 2.2.3.1.4) (vapour pressure at 50 °C more than 110 kPa)	III
		EXTRACTS, AROMATIC, LIQUID (having a flash-point below 23 °C and viscous according to 2.2.3.1.4) (vapour pressure at 50 °C not more than 110 kPa)	III

2. Nevertheless, there are other cases when the reasons for differing UN number names are not so apparent. This is the case for UN 1012, 1326, 1345, 1352, 1358, 2015 and UN 2071.

3. This case will be analysed more in depth in this document, as permitting a harmonization with the Model Regulations and other transport modes would enable a more rational approach and ease administrative burdens during transport.

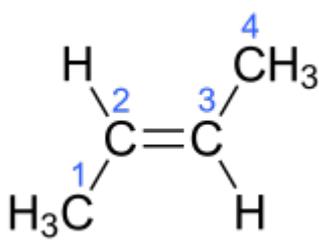
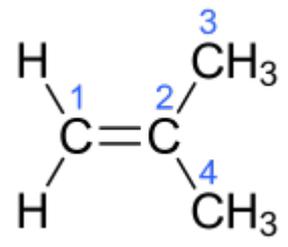
UN 1012 BUTYLENE

4. Name and description of UN 1012 in the Model Regulations and RID/ADR are the following:

UN Number	Model Regulations	RID/ADR
1012	BUTYLENE	BUTYLENE BUTYLENES MIXTURE or 1-BUTYLENE or cis-2-BUTYLENE or trans-2-BUTYLENE

5. Butylene, also known as butene, is a series of alkenes with the general formula C₄H₈. There exist four different isomers of alkenes that correspond to the mentioned formula:

IUPAC name	Common name	Structure
But-1-ene	α -butylene or 1-butylene	
(2Z)-but-2-ene	cis- β -butylene or cis-2-butylene	

(2 <i>E</i>)-but-2-ene	<i>trans</i> -β-butylene or <i>trans</i> -2-butylene	
2-methylprop-1-ene	Isobutylene	

6. The name “butylene” seems to include all 4 isomers, so there seems to be no need to include the names of the isomers separately, as in the RID-ADR name. “Butylene mixture” explicitly includes also a mixture of these isomers; but this also is generally included under the general name “butylene”. The isomer isobutylene is not mentioned explicitly in the RID/ADR name and this may induce to think that for RID/ADR is not possible to carry it under this UN number except as when in mixture with other isomers.

7. Therefore, apparently the additional text included into the RID/ADR name and description does not seem necessary.

Hafnium, zirconium and titanium powder and rubber scrap

8. Name and description of UN 1326, 1345, 1352 and 1358 in the Model Regulations and RID/ADR are the following:

UN Number	Model Regulations	RID/ADR
1326	HAFNIUM POWDER, WETTED with not less than 25% water (a visible excess of water must be present) (a) mechanically produced, particle size less than 53 microns; (b) chemically produced, particle size less than 840 microns	HAFNIUM POWDER, WETTED with not less than 25% water (a visible excess of water must be present) (a) mechanically produced, particle size less than 53 microns; (b) chemically produced, particle size less than 840 microns
1345	RUBBER SCRAP or RUBBER SHODDY, powdered or granulated, not exceeding 840 microns and rubber content exceeding 45%	RUBBER SCRAP or RUBBER SHODDY, powdered or granulated, not exceeding 840 microns and rubber content exceeding 45%
1352	TITANIUM POWDER, WETTED with not less than 25% water (a visible excess of water must be present) (a) mechanically produced, particle size less than 53 microns; (b) chemically produced particle size less than 840 microns	TITANIUM POWDER, WETTED with not less than 25% water (a visible excess of water must be present) (a) mechanically produced, particle size less than 53 microns; (b) chemically produced particle size less than 840 microns
1358	ZIRCONIUM POWDER, WETTED with not less than 25% water (a visible excess of water must be present) (a) mechanically produced, particle size less than 53 microns; (b) chemically produced particle size less than 840 microns	ZIRCONIUM POWDER, WETTED with not less than 25% water (a visible excess of water must be present) (a) mechanically produced, particle size less than 53 microns; (b) chemically produced particle size less than 840 microns

9. For all of these cases, RID/ADR cover these substances independently from their granulometry, while the Model Regulations restrict the cases to the ones that apparently cause more hazards.

10. In other modes of transport, the UN numbers have the same description as in the Model Regulations. The RID/ADR description covers more cases than the Model Regulations description, and this may lead to incongruences.

UN 2015 Hydrogen peroxide

11. For hydrogen peroxide, two different entries exist in RID/ADR that subdivide this UN number in the one with 60-70% and more than 70% of hydrogen peroxide. But additionally, this entry is restricted only to the carriage of hydrogen peroxide carried as aqueous solution, but not as stabilized product:

UN Number	Model Regulations	RID/ADR
2015	HYDROGEN PEROXIDE, STABILIZED or HYDROGEN PEROXIDE, AQUEOUS SOLUTION, STABILIZED with more than 60% hydrogen peroxide	HYDROGEN PEROXIDE, STABILIZED or HYDROGEN PEROXIDE, AQUEOUS SOLUTION, STABILIZED with more than 60 70% hydrogen peroxide
		HYDROGEN PEROXIDE, STABILIZED or HYDROGEN PEROXIDE, AQUEOUS SOLUTION, STABILIZED with more than 60% hydrogen peroxide <u>and not more than 70% hydrogen peroxide</u>

12. Therefore, under the Model Regulations HYDROGEN PEROXIDE, STABILIZED can be carried under UN 2015, but for RID/ADR not; perhaps this case should be included also into RID/ADR.

UN 2071 and UN 2426 Ammonium nitrate

13. Name and description of UN 2071 and UN 2426 in the Model Regulations and RID/ADR are the following:

UN Number	Model Regulations	RID/ADR
2071	AMMONIUM NITRATE BASED FERTILIZER	AMMONIUM NITRATE BASED FERTILIZER Ammonium nitrate based fertilizer, uniform mixtures of the nitrogen/phosphate, nitrogen/potash or nitrogen/phosphate/potash type, containing not more than 70% ammonium nitrate and not more than 0.4% total combustible/organic material calculated as carbon or with not more than 45% ammonium nitrate and unrestricted combustible material
2426	AMMONIUM NITRATE, LIQUID (hot concentrated solution)	AMMONIUM NITRATE, LIQUID (hot concentrated solution), <u>in a concentration of more than 80% but not more than 93%</u>

14. The different name and description are due to a different way to implementing the provisions on ammonium nitrate. As changes have been made in this respect in the 20th edition of the Model Regulations, this difference in the name and description should be analysed as part of the harmonization work on this subject.

Proposals

15. Spain would suggest to study the possibility of harmonizing the names and description of these UN numbers with the UN Model Regulations texts.