

Economic Commission for Europe

Inland Transport Committee

Working Party on the Transport of Dangerous Goods

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

Ad hoc Working Group on the Harmonization of RID/ADR/ADN
with the UN Recommendations on the Transport of Dangerous Goods

Geneva, 26-27 April 2023

Harmonization with the United Nations Model Regulations on the Transport of Dangerous Goods – Comments on ECE/TRANS/WP.15/AC.1/HAR/2023/1

Transmitted by the Government of Sweden

Below you find comments concerning document HAR/2023/1. Our suggested amendments are **written in red and bold**.

1.2.1

In the definition for “capacity of shell,” the last sentence should perhaps be amended to take into account the term “filling ratio” that is applicable for gases.

...*”When it is impossible to completely fill the shell or the shell compartment because of its shape or construction, this reduced capacity shall be used for the determination of the degree of filling, **filling ratio** and for the marking of the tank.”*

Articles, 2.1.5.2, 4.1.4.1, P006, LP03

We suggest that text is inserted to clarify that the articles may also contain sodium ion batteries in addition to lithium batteries.

*“Such articles may in addition contain cells or batteries. Lithium **and sodium ion** cells and batteries that are integral to the article shall be of a type proven to meet the testing requirements of the Manual of Tests and Criteria, part III, sub-section 38.3. For articles containing pre-production prototype lithium **and sodium ion** cells or batteries ~~transported-carried~~ for testing, or for articles containing lithium **sodium ion** cells or batteries manufactured in production runs of not more than 100 cells or batteries, the requirements of special provision 310 of Chapter 3.3 shall apply”*

*“Articles containing pre-production prototype lithium **and sodium ion** cells or batteries when these prototypes are ~~transported-carried~~ for testing or production runs of not more than 100 lithium **and sodium ion** cells or batteries that are of a type that have not met the testing requirements of the Manual of Tests and Criteria”*

*“Articles containing pre-production prototype lithium **and sodium ion** cells or batteries when these prototypes are ~~transported-carried~~ for testing or production runs of not more than 100 lithium **and sodium ion** cells or batteries that are of a type that have not met the testing requirements of the Manual of Tests and Criteria, part III..”*

2.2.9.1.7.2 Sodium ion batteries

It should be considered if the note that exists for lithium batteries under (a) in 2.2.9.1.7.1 should also be applicable for sodium batteries.

Furthermore, we also wonder if the last sentence in 2.2.9.1.7.1 also should be inserted in 2.2.9.1.7.2.

“(a) Each cell or battery is of the type proved to meet the requirements of applicable tests of the Manual of Tests and Criteria, part III, sub-section 38.3.

“NOTE: Batteries shall be of a type proved to meet the testing requirements of the Manual of Tests and Criteria, part III, sub-section 38.3, irrespective of whether the cells of which they are composed are of a tested type.

After (g):

“Sodium ion batteries are not subject to the provisions of ADR if they meet the requirements of special provision 188 of Chapter 3.3.”

SP 188 (f)

We wonder if the note should be amended to take into account sodium ion batteries?

“**NOTE:** Packages containing lithium batteries packed in conformity with the provisions of Part 4, Chapter 11, packing instructions 965 or 968, Section IB of the ICAO Technical Instructions that bear the mark as shown in 5.2.1.9 (lithium **and sodium ion** battery mark) and the label shown in 5.2.2.2, model No. 9A shall be deemed to meet the provisions of this special provision.”

SP 363 applicable to UN 3528, 3529 and 3530

We wonder if the special provisions should be amended to take into account sodium ion batteries.

“In (f), ~~first paragraph~~, amend the second sentence to read “However, lithium **and sodium ion** batteries shall meet the provisions of ~~2.9.4~~**2.2.9.1.7.1 and 2.2.9.1.7.2**, except that ~~2.9.4~~(a), (e) (vii), (f) (iii) if applicable, (f) (iv) if applicable and (g) do not apply when batteries of a production run of not more than 100 cells or batteries...”

SP 377

We suggest that paragraphs (a) to (g) in 2.2.9.1.7.2 is inserted in line with the provisions for lithium batteries in 2.2.9.1.7.1

“In the first paragraph, replace “Lithium ion and lithium metal” by “Lithium metal, lithium ion and sodium ion” and after “non-lithium”, insert “or non-sodium ion”.

In the second paragraph, ~~after replace~~ “2.2.9.1.7 (a) to (g)” by “2.2.9.1.7.1 (a) to (g) or 2.2.9.1.7.2 (a) to (g)”~~“2.9.4”~~, insert “or 2.9.5”

SP388

We suggest that text in new paragraph (9) is included to also cover sodium ion batteries.

One general remark for consideration maybe is if it would be wise to include a new UN number applicable for equipment with wet batteries, metallic sodium batteries or sodium alloy batteries? Then UN 3171 would only cover vehicles with wet batteries, metallic sodium batteries or sodium alloy batteries. This would align the provisions in comparison with lithium and sodium ion batteries that have separate UN numbers for vehicles and equipment.

*“In paragraph 9 (old paragraph 8), amend the second sentence to read “However, lithium **and sodium ion** batteries shall meet the provisions of [2.9.4.2.9.1.7.1](#) and [2.2.9.1.7.2](#), except that [2.9.4](#) (a), (e) (vii), (f) (iii) if applicable, (f) (iv) if applicable and (g) do not apply when batteries of a production run of not more than 100....”*

SP 401

We propose for information purposes to add a text that batteries containing metallic sodium should be carried as UN 3292.

*Sodium ion cells and batteries with organic electrolyte shall be ~~transported-carried~~ as UN ~~No.~~ 3551 or 3552 as appropriate. Sodium ion cells and batteries with aqueous alkali electrolyte shall be ~~transported-carried~~ as UN ~~No.~~ 2795 BATTERIES, WET, FILLED WITH ALKALI, electric storage. **Batteries containing metallic sodium or sodium alloy shall be carried as UN 3292.**”*

SP404, SP405 and SP 666

We wonder if SP 404 should be deleted, since it is proposed to assign SP 666 as well. In SP 666 both sodium ion and lithium battery vehicles are more or less exempted and the only valid requirement is in (a) that it is stated” Where appropriate, the vehicles shall be loaded upright and secured against falling”. If SP 404 is inserted there will be more stringent requirements for sodium ion battery vehicles than for lithium battery vehicles.

Concerning SP 405 we also think that further work is needed. If it is wanted that “smaller sized” vehicles are going to be marked we believe amendments in SP 666 should be carried out. Since SP 666 exempt the vehicles from ADR under certain conditions, it is in our way difficult to say that the provisions on marking in SP 405 is still applicable, it might be a contradiction here. One way of perhaps solving this would be to delete SP 405, delete the new proposed paragraph in SP 666 and instead insert a new (e) in SP 666.

“666 Vehicles and battery powered equipment, referred to by special provision 388, when carried as a load, as well as any dangerous goods they contain that are necessary for their operation or the operation of their equipment, are not subject to any other provisions of ADR, provided the following conditions are met:...

(e) Vehicles that are fully enclosed by packagings, crates or other means that prevent ready identification are subject to the marking or labelling requirements of Chapter 5.2.

4.1.4.1, P006

Concerning the new (5) (d), we enquire if text concerning the competent authority in line with P910 (3) should be inserted.

“(d) The article may be transported carried unpackaged under conditions specified by the competent authority of any Contracting Party to ADR, which may also recognize an approval granted by the competent authority of a country which is not a Contracting Party to ADR, provided that this approval has been granted in accordance with the procedures applicable according to RID, ADR, ADN, the IMDG Code or the ICAO Technical Instructions. Additional conditions that may be considered in the approval process include, but are not limited to:”

4.1.4.1, P905

We wonder if UN 3292 should be included as well.

In additional requirement 1 (c), after “lithium batteries”, insert “and sodium ion batteries **and batteries containing metallic sodium or sodium alloy**”.

P912

We have a suggestion for a new wording in (c).

“may be transported unpacked in a cargo transport unit fitted out with the means to prevent toppling in transport, such as by the use of bracing, frames or racking where the vehicles have the potential to topple over during transport carriage (e.g. motor cycles), ~~may be transported carried unpackaged in a cargo transport unit fitted out with the means to prevent toppling in transport carriage, such as by the use of bracing, frames or racking”~~

6.2.1.6.1 (d), 1.6.2.17

It is suggested that 1.6.2.17 is deleted since this transitional measure has expired.

~~“1.6.2.17 The requirements of Note 3 of 6.2.1.6.1 applicable until 31 December 2022 may continue to be applied until 31 December 2024.”~~