



U.S. Department  
of Transportation  
**Pipeline and Hazardous  
Materials Safety  
Administration**

1200 New Jersey Avenue, SE  
Washington, DC 20590

December 22, 2022

Mr. Cliff Bartley  
Matson, Inc.  
426 N. 44th Street  
Suite 250  
Phoenix, AZ 85008

Reference No. 21-0110

Dear Mr. Bartley:

This letter is in response to your November 22, 2021, email requesting clarification of the Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180) applicable to transporting dry batteries. Specifically, you ask about shipping this material—classified as “UN3028, Batteries, dry, containing potassium hydroxide solid, *electric storage*, 8”—as a limited quantity and harmonization with the International Maritime Dangerous Goods (IMDG) Code.

We have paraphrased and answered your questions as follows:

- Q1. You ask whether the 5-kilogram (kg) limit per inner packaging—as specified in § 173.154(b)(2) for limited quantity combination packagings of Packing Group (PG) III corrosive materials—refers to only the potassium hydroxide within a battery or the article itself.
- A1. Since this battery is an article, the entire weight of the battery must be considered when adhering to the 5 kg inner packaging limit.
- Q2. You ask which PG should be utilized when shipping “UN3028, Batteries, dry, containing potassium hydroxide solid, *electric storage*, 8” as a limited quantity material.
- A2. The Hazardous Materials Table (HMT) entry for “UN3028, Batteries, dry, containing potassium hydroxide solid, *electric storage*, 8” specifies § 173.213 as the non-bulk packaging section in column 8B of the HMT. Section 173.213 is titled “Non-bulk packagings for solid hazardous materials in Packing Group III.” Therefore, PG III limits should be utilized when shipping this material as a limited quantity.

- Q3. You request that the HMR be harmonized with the IMDG Code by indicating PG III in the entry for “UN3028, Batteries, dry, containing potassium hydroxide solid, *electric storage*, 8” in the HMT.
- A3. Generally, PHMSA strives to maintain alignment with international regulations and consensus standards including the United Nations (UN) Model Regulations, the International Civil Aviation Organization (ICAO) Technical Instructions, and the IMDG Code. In this instance, the HMR is aligned with both the ICAO Technical Instructions and UN Model Regulations by omitting a PG for “UN3028, Batteries, dry, containing potassium hydroxide solid, *electric storage*, 8.”

I hope this information is helpful. Please contact us if we can be of further assistance.

Sincerely,



T. Glenn Foster  
Chief, Regulatory Review and Reinvention Branch  
Standards and Rulemaking Division

**From:** [INFOCNTR \(PHMSA\)](#)  
**To:** [Dodd, Alice \(PHMSA\)](#)  
**Subject:** FW: Request for a Letter of Interpretation  
**Date:** Wednesday, December 8, 2021 2:12:54 PM  
**Attachments:** [UN3028.docx](#)

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Dear Alice,

Please see the attached LOI request, (or) the below LOI request.

If you have any questions, please do not hesitate to reach out.

Regards,  
Josh (HMIC)

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**From:** Clifford Bartley (Remote) 480-428-9286 <[CBartley@matson.com](mailto:CBartley@matson.com)>  
**Sent:** Saturday, December 4, 2021 11:48 PM  
**To:** INFOCNTR (PHMSA) <[INFOCNTR.INFOCNTR@dot.gov](mailto:INFOCNTR.INFOCNTR@dot.gov)>  
**Cc:** Clifford Bartley (Remote) 480-428-9286 <[CBartley@matson.com](mailto:CBartley@matson.com)>  
**Subject:** Request for a Letter of Interpretation

**CAUTION:** This email originated from outside of the Department of Transportation (DOT). Do not click on links or open attachments unless you recognize the sender and know the content is safe.

Dear Help Desk,

I contacted your group regarding the referenced UN3028 entry discrepancies. I have written the attached letter to gain clarification on the proper use of this entry especially under the limited quantity exception.

The help desk is very beneficial in aiding industry and customers in the proper handling of dangerous goods and I commend the team.

Regards,

**Matson**  
*Cliff Bartley, CDGP*  
Manager Dangerous Goods  
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November 22, 2021

**Matson**<sup>®</sup>

Clifford Bartley  
Manager Dangerous Goods  
426 N. 44<sup>th</sup> Street  
Suite 250  
Phoenix, AZ85008

Mr. Shane Kelley, Director Standards & Rulemaking  
Pipeline and Hazardous Materials Safety Administration  
Attn: PHH-10, U.S. Department of Transportation, East Building  
1200 New Jersey Avenue, SE.  
Washington, DC 20590-0001

Request for a “Letter of Interpretation”  
Referenced UN3028

Dear Mr. Kelley:

I am writing to obtain guidance on UN3028, Batteries, Dry, Containing Potassium Hydroxide, Solid, 8, III. The entry is only applicable to dry non activated batteries and the regulations allows the batteries to ship under the “Limited Quantity” exception of 5kg for PGIII cargo.

The question surrounds the weight of the product. Is the 5kg limited quantity amount designated as the weight for the potassium hydroxide within the battery or the article itself which would include the battery and the potassium hydroxide? I noticed that the IMDG Code provide a limited quantity exception for UN2794 lead acid batteries of 1 liter and it is understood that the 1liter is the battery fluid acid within the battery itself since it is the only liquid element of the article.

I would also like to see this UN3028 entry harmonized with the IMDG code in that the entry in 49CFR172.101 does not have a packing group number indicated. The hazmat table does reference 49CFR173.154 in column 7a for the entry but a packing group is required to determine the mass limitation. It is difficult to determine the limited quantity exception applicable without a packing group designation.

Providing guidance on the UN3028 will be beneficial in the proper classification of this dangerous goods entry.

Thank you for your help.

Sincerely,

Cliff Bartley  
Manager Dangerous Goods  
Matson Inc.  
Ph. 1-480-428-9286