



U.S. Department  
of Transportation

**Pipeline and Hazardous  
Materials Safety  
Administration**

1200 New Jersey Avenue, SE  
Washington, DC 20590

March 17, 2023

Kristie Absher  
Senior Consultant  
Environmental Resource Center  
101 Center Pointe Drive  
Cary, NC 27513

Reference No. 22-0095

Dear Ms. Absher:

This letter is in response to your June 17, 2022, letter, January 30, 2023, email, and subsequent phone conversation with a member of my staff requesting clarification of the Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180) applicable to the transportation of lithium metal batteries contained in acoustic devices used for sound recordings called “rockhoppers.” Specifically, you state that your research team deploys rockhoppers as part of an ocean research program. The rockhoppers are powered by an 8.8 kg lithium metal battery where the batteries are hermetically sealed inside the device to prevent water intrusion and thus cannot be removed for transportation purposes. Furthermore, the rockhoppers—which are made of glass—are housed in a buoy type unit for protection against damage and then packaged in a sturdy case when transported. The weight of the buoy type unit is over 100 lbs. and the weight of the total package—to include all equipment and packaging—is less than 150 lbs. Lastly, you state that these rockhoppers would be transported by highway to a boat pier for loading onto a vessel to then launch the rockhoppers in the ocean. You ask when referencing “UN3091, Lithium metal batteries contained in equipment *including lithium alloy batteries, 9*” as it relates to the materials of trade (MOTs) exception, does the 30 kg weight limitation—as applied to Class 9 articles without a packing group designation in the § 172.101 hazardous materials table—apply to the total package, the buoy type unit containing a rockhopper, the rockhopper, or just the lithium metal battery contained in the rockhopper.

Based on the information you have provided, the 30 kg (66 lbs.) weight limitation applies to the rockhopper because the buoy type unit and sturdy case may be considered a means of securing the rockhopper against shifting during transport. In accordance with § 173.6(b)(3), outer

packaging is not required for articles that are secured against shifting by cages, carts, bins, boxes, compartments or by other means. Thus, when utilizing the MOTs provisions for this specific scenario, only the combined weight of the lithium metal battery installed in the rockhopper should be considered for the 30 kg gross weight limit.

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

Sincerely,

A handwritten signature in blue ink, appearing to read "Dirk Der Kinderen". The signature is fluid and cursive, with a prominent initial "D".

Dirk Der Kinderen  
Chief, Standards Development Branch  
Standards and Rulemaking Division



June 17, 2022

Baker  
22-0095

Mr. Shane Kelley  
Director, Standards and Rulemaking Division  
U.S. DOT/PHMSA (PHH-10)  
1200 New Jersey Avenue, SE East Building, 2<sup>nd</sup> Floor  
Washington, DC 20590

Dear Mr. Kelley:

My question is about weight limits for lithium ion or metal batteries contained in equipment per the materials of trade (MOT) exception in 49 CFR 173.6.

49 CFR 173.6(a) indicates that articles without packing groups are limited to packaging with a gross mass of 30 kg (66 lb). Does the 30 kg gross mass limit apply to lithium batteries packed with or contained in equipment?

For example, I am transporting a lithium metal battery installed in equipment. The battery weighs 10 kg and the equipment without the battery weighs 40 kg. Therefore, the gross weight of my completed packaging is 50 kg (battery plus equipment) plus the weight of packaging and its components. Since I am over the gross mass limit of 30 kg, I cannot take the MOT exception.

However, if I remove the battery from the equipment and package it separately, the gross mass of my packaging is reduced to well under 30 kg as it contains the 10 kg battery plus the packaging and components. In that case, I can take the MOT exception provided all other conditions for the exception are met.

It seems illogical that the exact same battery can be transported as a MOT when removed from its equipment but cannot qualify when installed in equipment.

Thank you in advance for your clarification.

Sincerely,

Kristie Absher  
Senior Consultant

**From:** [INFOCNTR \(PHMSA\)](#)  
**To:** [Dodd, Alice \(PHMSA\)](#); [Hazmat Interps](#)  
**Subject:** FW: Request for Interpretation  
**Date:** Friday, September 16, 2022 2:46:18 PM  
**Attachments:** [LiBatMOTDOTLetter.pdf](#)

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Dear Alice and team,  
Please see the attached LOI. Thank you.  
Rachel (HMIC)

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**From:** Kristie Absher <kabsher@ercweb.com>  
**Sent:** Monday, September 12, 2022 1:39 PM  
**To:** INFOCNTR (PHMSA) <INFOCNTR.INFOCNTR@dot.gov>  
**Subject:** Request for 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 DOT representative:

Attached is a copy of a request for interpretation that I mailed three months ago.

Since I had not heard anything, I called the hazmat info center to check on the status of my request. The phone representative suggested I email the request.

I look forward to hearing from you. My contact information is below and in the letter.

Regards,  
Kristie Absher  
Environmental Resource Center  
101 Center Pointe Dr.  
Cary, NC 27513  
919-469-1585 x 402  
919-342-0807 fax  
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