



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

1200 New Jersey Avenue, SE
Washington, DC 20590

October 8, 2021

Mr. Latane R. Montague
Hogan Lovells US LLP
Columbia Square
555 Thirteenth Street, NW
Washington, DC 20004

Reference No. 21-0057

Dear Mr. Montague:

This letter is in response to your May 20, 2021, letter requesting clarification of the Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180) applicable to the classification of thermal batteries containing lithium or lithium compounds in the anode which are not classed as a Class 1 (Explosive) or Division 4.1 (Flammable Solid) hazardous material. In your letter, you state that the battery components (the lithium anode, the metal salt cathode and the solid inorganic electrolyte that is non-conductive in its transport state) are separate and these batteries remain in an inert, solid state until they are activated by an electro-explosive device. You further state that the batteries are transported with a shorting device installed across the activation circuit to prevent inadvertent activation. You also reference a guidance document titled “Guidance and Criteria for Classification of Thermal Batteries,” issued on August 8, 1995, by the Pipeline and Hazardous Materials Safety Administration’s (PHMSA) predecessor—the Research and Special Programs Administration—to support the opinion that thermal batteries not classed as a Class 1 or Division 4.1 hazardous material by an EX approval are “not regulated” in transportation, and therefore are not subject to the HMR provided the batteries meet the criteria in the guidance document.

You request that PHMSA either: (1) provide concurrence with the determination that thermal batteries not otherwise classed as Class 1 or Division 4.1 by EX approval—but containing lithium or lithium compounds in the anode—are “not regulated” in transportation and therefore not subject to HMR requirements; or (2) provide specific guidance for classifying thermal batteries containing lithium or lithium compounds in the anode as lithium metal batteries (UN3090) and whether an approval from the Associate Administrator for Hazardous Materials Safety is required to offer thermal batteries for transport when testing such batteries in accordance with sub-section 38.3 of the UN Manual of Tests and Criteria is not possible.

As specified in § 173.22 of the HMR, it is the shipper's responsibility to properly class and describe a hazardous material in accordance with parts 172 and 173 of the HMR. This Office generally does not perform that function. However, it is the opinion of this Office that the batteries you describe (utilizing lithium metal or lithium alloy component anode, metal salt cathode and solid non-conductive inorganic electrolyte) do not meet the description of lithium metal batteries (UN3090). While the 1995 guidance document was issued at a time when different chemistries may have been used in thermal battery manufacturing, the batteries described appear to meet the conditions identified in that guidance document. Further, when PHMSA issued the EX approval referenced in your letter, PHMSA determined that the batteries are thermal batteries. It would be the shipper's responsibility to determine whether your material meets the definition of any other hazard class in accordance with the HMR.

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

Sincerely,

A handwritten signature in black ink that reads "Duane A. Pfund". The signature is written in a cursive, flowing style.

Duane A. Pfund
Acting Director
Standards and Rulemaking Division
Office of Hazardous Materials Safety

From: [INFOCNTR \(PHMSA\)](#)
To: [Dodd, Alice \(PHMSA\)](#); [Hazmat Interps](#)
Subject: FW: Hogan Lovells Interpretation Request - Thermal Battery Classification for Transport
Date: Tuesday, May 25, 2021 10:49:26 AM
Attachments: [Letter to PHMSA re Interpretation Request - Thermal Battery Classification for Transport \(May 20 2021\) \[Final\].pdf](#)
[DOT RSPA Guidance and Criteria for Classification of Thermal Batteries \(1995\).pdf](#)

Good morning Alice,

Please see the attached request for a letter of interpretation. Please contact our office with any questions.

Thank you,

Sarah Whitlock (HMIC)

From: Clark, Matthew J. [mailto:matt.clark@hoganlovells.com]
Sent: Tuesday, May 25, 2021 9:54 AM
To: INFOCNTR (PHMSA) <INFOCNTR.INFOCNTR@dot.gov>
Cc: Clark, Matthew J. <matt.clark@hoganlovells.com>
Subject: Hogan Lovells Interpretation Request - Thermal Battery Classification for Transport

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.

To Whom it May Concern:

Please see attached interpretation request regarding thermal battery classification for transport. This interpretation request was also submitted via USPS.

Thank you,

Matt

Matt Clark

Senior Associate

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If you would like to know more about how we are managing the impact of the COVID-19 pandemic on our firm then take a look at our brief [Q&A](#). If you would like to know more about how to handle the COVID-19 issues facing your business then take a look at our [information hub](#).

About Hogan Lovells

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