



U.S. Department
of Transportation

**Pipeline and Hazardous
Materials Safety
Administration**

1200 New Jersey Avenue, SE
Washington, DC 20590

October 14, 2020

Ms. Sarah Kim
Environmental Specialist
LG Chem Michigan, Inc.
1 LG Way
Holland, MI 49423

Reference No. 20-0061

Dear Ms. Kim:

This is in response to your July 1, 2020, letter requesting clarification of the Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180) applicable to lithium batteries. In your letter, you describe your company's multi-step process for the production of lithium batteries and note that quality defects are identified during the production process, resulting in the generation of scrap materials. Further, you indicate that these scrap materials are assembled units that include the electrode stack, which consists of layers of lithium-based cathode product and graphite-based anode product, and the electrolyte solution. The discarded assembled units have not undergone the "formation" process, in which lithium ions are embedded in the crystal structure of the graphite anode. You ask whether your understanding is correct that the discarded assembled units you describe do not meet the definition of a lithium ion or lithium metal battery as defined in § 171.8 and, therefore, are not subject to the associated package, labeling, and marking requirements in § 173.185.

The HMR's definition of a lithium ion battery states, in relevant part, that "lithium ion battery means a rechargeable electrochemical cell or battery in which the positive and negative electrodes are both lithium compounds constructed with no metallic lithium in either electrode." A lithium metal battery is "an electrochemical cell or battery utilizing lithium metal or lithium alloys as the anode." See § 171.8. Provided the discarded assembled units described in your letter never undergo the formation process, they are not subject to the requirements provided in § 173.185 applicable to lithium batteries. However, if any electrolyte remaining in the scrap materials meets the definition of a "flammable liquid" as provided in § 173.120, the scrap materials may be subject to corresponding requirements of the HMR.

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: [Hazmat Interps](#)
Subject: FW: Letter of Interpretation Request
Date: Wednesday, August 19, 2020 3:48:47 PM

Hello Alice,

Below is a letter of interpretation request.

Thanks,

Jonathon, HMIC

From: Mike Jennings [mailto:mjennings@lesl.com]
Sent: Monday, August 17, 2020 6:40 PM
To: INFOCNTR (PHMSA) <INFOCNTR.INFOCNTR@dot.gov>
Subject: Letter of Interpretation Request

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;

We are seeking clarification with regard to shipping of **UN3260, Corrosive solid, acidic, inorganic, n.o.s., 8, PG II in bulk packaging** as described at 49 CFR 173.240(c), specifically, that part reading “and sift-proof non-DOT Specification....closed bulk bins are authorized.” The mode of shipment would be highway. We believe the following described packaging scenario meets the requirements applicable to the identified hazardous material and regulatory citation.

The outer packaging would be a large, sturdy, non-DOT specification cardboard box (e.g. Gaylord box). The box used would have a net mass (once filled) of greater than 400 kg (882 pounds) AND a maximum capacity greater than 450 L (119 gallons). One pound, sealed pouches filled with the hazardous material would be placed inside the box. Either a plastic liner would be in the box between the one pound pouches and box or each of the one pound pouches of hazardous material would be placed in plastic bags (and bags secured closed) before being placed inside the box. The package would then be “overpacked” by placement on and shrink-wrapping to a pallet.

Have we correctly interpreted, and do you agree, that the method of packaging and package described in the preceding scenario would be compliant for shipment by highway and is:

- A sift-proof non-DOT Specification closed bulk bin
- Not subject to UN specification or Performance Oriented Packaging
- Not subject to the “overpack” marking requirement due to the “non-DOT specification” status of the package inside

Thank you,

Mike Jennings
Leslie's Poolmart, Inc.
2005 E. Indian School Road
Phoenix, AZ 85016
Phone: (602) 366-3946
Fax: (602) 366-3921

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