



U.S. Department
of Transportation

**Pipeline and Hazardous
Materials Safety
Administration**

1200 New Jersey Avenue, SE
Washington, DC 20590

May 9, 2023

Mr. Tyler Scott
Product Information Management Supervisor
Petra Industries, LLC
2101 S. Kelly Ave
Edmond, OK 73013

Reference No. 23-0001

Dear Mr. Scott:

This letter is in response to your January 4, 2023, email requesting clarification of the Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180) applicable to products containing lithium ion batteries. In your email, you state that your company is attempting to establish a clearer distinction between “UN3480, Lithium ion batteries” and “UN3481, Lithium ion batteries contained in equipment” to avoid conflicts between your customers and manufacturers, as you are aware that many consumer electronic devices now include power bank functionality as an additional feature. You cite a previously-issued Letter of Interpretation No. 16-0125¹—dated May 31, 2017—which clarifies that a power bank with additional electronic accessories should be described as “UN3480, Lithium ion batteries” if used to supply electric power to separate equipment. Finally, you provide a list of lithium battery powered products that can also charge external devices. You ask which devices should be described as “UN3480, Lithium ion batteries” or “UN3481, Lithium ion batteries contained in equipment.”

In accordance with § 173.22 of the HMR, it is the shipper’s responsibility to properly classify and describe a hazardous material. This Office does not perform that function. To determine whether an individual device should be described as “UN3480, Lithium ion batteries” or “UN3481, Lithium ion batteries contained in equipment,” one should consider the primary purpose of the device. For instance, if a device primarily functions as a standalone power source for another device it would likely be described as “UN3480, Lithium ion batteries.” In contrast, if a device functions primarily for a purpose other than as a power source for another device it would likely be described as “UN3481, Lithium ion batteries contained in equipment.”

¹ <https://www.phmsa.dot.gov/regulations/title49/interp/16-0125>

In consideration of the information you provided in your email, it is the opinion of this Office that most of the devices *as described* in your letter are “UN3481, Lithium ion batteries contained in equipment.” However, the earbuds with an integrated USB-C phone charger should be considered “UN3481, Lithium ion batteries packed with equipment” (see LOI 19-0134² and 20-0078³). This would also apply to any of the devices on your list where the battery is designed to provide electrical power to another device.

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

Sincerely,

A handwritten signature in blue ink that reads "T. Glenn Foster". The signature is fluid and cursive, with a long horizontal flourish extending to the right.

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

² <https://www7.phmsa.dot.gov/hazmat/interpretations/19-0134>

³ <https://www.phmsa.dot.gov/regulations/title49/interp/20-0078>

Andrews

23-0001

From: [INFOCNTR \(PHMSA\)](#)
To: [Dodd, Alice \(PHMSA\)](#)
Cc: [Hazmat Interps](#)
Subject: FW: Interpretation Response Requested
Date: Thursday, January 5, 2023 1:35:37 PM
Attachments: [image001.png](#)
[49CFRInterpLetter.docx](#)

Hi Alice,

Hope your holidays were good!

Please see the below and attached interpretation request.

Let me know if you need anything else from us.

Regards,

-Breanna

From: Tyler Scott <tscott@petra.com>
Sent: Wednesday, January 4, 2023 1:35 PM
To: INFOCNTR (PHMSA) <INFOCNTR.INFOCNTR@dot.gov>
Subject: Interpretation Response Requested

Sent e-mail asking for physical mailing address. He did not include it.

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:

It has been brought to Petra's attention that there is some gray area between what is a "UN3480 Product is a battery" and what can be considered "UN3481 Battery is contained in product/Battery is packed with product" and as a distributor we would like to be able to set a firm and definite line to avoid conflicts between our customers and manufacturers. On my last call to the 49CFR, I was asked to submit this data for an official interpretation response.

Per interpretation response 16-0125, a power bank with additional electronic accessories such as a fuel gauge or flashlight should still be considered UN3480 if it is used to supply electric power to separate equipment. However, many devices contain power bank functionality as a supplemental or additional feature of the product. Even devices such as a laptop, tablet, and cell phone can be used to charge other devices through their ports or through wireless charging. Although that is not their primary use or purpose, it could be considered a secondary functionality.

Could you please provide clarification for the point of functionality at which a device should be considered a “power bank” and clarify which of the below device types should be considered UN3480 and which can be considered UN3481? These devices all utilize UN38.3 tested Lithium-Ion batteries of different sizes and capacities and are examples of real products that our company inventories and ships.

Action Camera Rechargeable Selfie Stick – Has the ability to charge the action camera but its prime functionality is as a selfie stick and to operate the shutter and record functionality of the camera. Battery contained inside the product.

Stereo Bluetooth Speaker with Lights – This has the primary functionality of a Bluetooth speaker but also contains a wireless Qi charger that can charge cell phones and other devices from the contained battery. Battery is contained inside the product.

All-In-One Rechargeable Jump Starter – Contains a 72 PSI Air Compressor, 220 Lumen Work light, Jump Starting Components and 10 Watt Power Bank. Battery is contained inside the product.

Rechargeable 1300 Lumen Spotlight – Large spotlight that also contains a USB port for power bank capabilities. Battery is contained inside the product.

Rechargeable 200 Lumen Flashlight – Small Flashlight that also contains a USB port for power bank capabilities. Battery is contained inside the product.

20 Volt Drill – The battery that is packed with the product contains a USB port in which a cell phone can be charged but it is packed with the primary equipment it is used with (the drill).

12-in High Velocity Rechargeable Fan – Runs off of a removable power bank that is shipped installed in the unit, however, power bank can also be removed and used to charge cell phones and other devices.

Rechargeable Hand Warmer/Power Bank - Primary functionality is a hand warmer but has a secondary power bank functionality.

True Wireless Earbuds with Integrated USB-C Phone Charger – Like a standard pair of true wireless earbuds (includes the 2 earbuds each with small lithium ion batteries) but has a larger 3000mAh bank battery and a USB-C port that can be plugged in to charge a phone.

AM/FM Emergency Crank Radio – Battery is contained inside, has a Weather Radio, Flashlight, Handcrank and Solar Panel but also a USB port that can be used to charge external devices.

1500 Lumen Worklight and Fan Combo – Battery is contained inside, contains 2 USB Ports for charging devices.

Water Bottle Bluetooth Speaker Powerbank – Battery is contained inside Bluetooth speaker located underneath the waterbottle, has a single USB port for charging external devices.

Laptop Computer – Battery is contained in the product, Product can charge other devices through it's USB-C and USB port.

Thank you for your time in reviewing each item type and I will be looking forward to the official response.

Tyler Scott

Product Information Management Supervisor

Petra Industries, LLC

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