#### Are lithium batteries class 9 hazardous materials?

Lithium cells and batteries are Class 9(miscellaneous) hazardous materials. There are eight possible descriptions for lithium cells and batteries, depending on the battery chemistry. These descriptions, or proper shipping names, are found in the Hazardous Materials Table (HMT) in § 172.101 of the HMR. They are as follows:

Are lithium batteries hazardous materials / dangerous goods?

As a result, lithium batteries are considered hazardous materials /dangerous goods, and must be handled, stored and transported accordingly (as set out in UN3480 and the supporting regulations). 03: Products

What is the proper shipping name for lithium ion batteries?

Proper Shipping Name Mark - "Lithium ion batteries packed with equipment" or "Lithium ion batteries contained in equipment", as appropriate. Note: if the package contains both lithium ion batteries packed with and contained in equipment, the proper shipping name is "Lithium Ion Batteries Packed with Equipment".

How are lithium batteries regulated?

Lithium cells and batteries are Class 9 (miscellaneous) hazardous materials. There are eight possible descriptions for lithium cells and batteries, depending on the battery chemistry. These descriptions, or proper shipping names, are found in the Hazardous Materials Table (HMT) in § 172.101 of the HMR.

What are the requirements for packaging a lithium battery?

(i) The outer packaging, when used, must be constructed of suitable material of adequate strength and designin relation to the capacity and intended use of the packaging, unless the lithium cells or batteries are afforded equivalent protection by the equipment in which they are contained;

Can a damaged lithium battery be transported on a plane?

Damaged lithium batteries are forbidden from air transport. See page 06 of this guide for information on damaged batteries. These shipments are forbidden to be transported as cargo on passenger aircraft. 2 batteries. n/a. Only one package of lithium cells and batteries may be placed in an overpack.

??? Revision to the lithium battery mark. A telephone number is no longer required on the lithium battery mark. Lithium battery marks with a phone number may continue to be applied until December 31, 2026. ??? Packing Instructions 965 and 968 ??? removal of Section II ??? Packing Instructions 966 and 969 ??? clarification on protection against



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#### LITHIUM ION BATTERY HAZMAT **PACKING GROUP**

Each distinct shipping guide in this document refers to the regulatory requirements for a specific lithium cell/battery type, configuration, or size. Hazardous Materials Information Center: 1-800-467-4922. Office of Pipeline Safety Hotline: 202-366-4595 or phmsa.pipelinesafety@dot.gov

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#### These regulations, classified under the Hazardous Materials Regulations (HMR; 49 C.F.R., Parts 171-180), classify lithium ion batteries as hazardous materials, making shipping and packaging them a complicated process. If you"re grappling with lithium ion battery packaging challenges, we are here to assist you in finding the optimal

containing both lithium ion cells and lithium metal cells must be shipped as UN 3090 or UN 3091, as appropriate. Note 1 - A small "hybrid" battery may not contain more than 1.5 g of lithium metal contained within all











Why Is a Lithium Ion Battery Considered Hazmat? While the IATA does not require those packing lithium-ion batteries to hold a certification, We will beat any competitors" prices, and we offer group discounts and 20% off discounts for government employees. You will get the training your workers need for safety while saving money on the



Tips for Packaging of Lithium-Ion Batteries. When shipping lithium-ion batteries, follow these packaging guidelines: The packaging material for lithium-ion batteries should be of optimal quality. Lithium-ion batteries must be packaged in an inner packaging that surrounds them, like a fiberboard box, to prevent short circuits.



Substance information for UN 3480 - Lithium ion batteries including lithium ion polymer batteries based on the Hazardous Materials Table (Title 49 CFR 172.101) to assist in preparing a risk ???



"Lithium ion batteries, in compliance with Section II of PI966"on AWB. NOTE: On the first of the year (2023) ICAO will not permit 965 section II lithium ion batteries. DHL, FedEx and UPS are not accepting these now.

This entry applies to lithium ion or lithium polymer batteries. This packing instruction is structured as follows: ??? Section IA applies to lithium ion cells with a Watt-hour rating in excess of 20 Wh and lithium ion batteries with a Watt-hour rating in excess of 100 Wh, which must be assigned to Class 9 and are subject to all of the



Packing Group I performance level packaging. This means only one lithium battery per inner packaging, and only one inner packaging per outer packaging. ??? In addition to the proper shipping name and other required markings, mark the outer packaging "Damaged/defective lithium ion battery" and/or "Damaged/defective lithium metal battery,"



HAZPlus offers both, stock and custom, compliant packaging solutions for a variety of battery types. We offer solutions for Lithium Ion batteries UN3480, Lithium Ion Batteries packed with equipment UN3481, Lithium Ion Batteries packed in equipment UN3481, Lithium Metal batteries UN3090, Lithium metal batteries packed with equipment UN3091



Subpart E???Non-bulk Packaging for Hazardous Materials Other Than Class 1 and Class 7 ? 173.185 Lithium cells and batteries. of this subchapter at the Packing Group II level: (A) Metal (4A, 4B, 4N), wooden (4C1, 4C2, 4D, 4F ion battery. After December 31, 2015, each lithium ion battery subject to this provision must be marked with the



Substance information for UN 2794 - Batteries, wet, filled with acid, electric storage based on the Hazardous Materials Table (Title 49 CFR 172.101) to assist in preparing a risk assessment for loading, transporting and storing hazardous materials.



Irrespective of the quantity limits in Column 9B of the ?172.101 table, a lithium battery, including a lithium battery packed with, or contained in, equipment that otherwise meets the applicable requirements of ?173.185, may have a mass exceeding 35 kg if approved by the Associate Administrator prior to shipment.



114KWh ES

The U.S. Department of Transportation's (DOT"s) Hazardous Materials Regulations (HMR; 49 C.F.R., Parts 171-180) classifies lithium ion batteries as hazardous materials. So, shipping them can get complicated. Here's the 101 on what materials can ???



Lithium ion and lithium metal cells and batteries are listed as Class 9 Miscellaneous hazardous materials in the U.S. and international hazardous materials (dangerous goods) regulations and are subject to specific packaging, marking, labeling, and shipping paper requirements. Cells and



Regulations get considerably more restrictive if your large format lithium battery is damaged, defective or recalled (DDR): DDR lithium-ion batteries cannot be compliantly shipped by air, regardless of capacity or weight. DDR lithium-ion batteries require UN specification packaging rated to Packing Group I???the highest category of potential

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will offer at lead packaging. ??
device, there is prevent activation on of lithium ion of and lithium methods.

will offer at least the same protection as rigid packaging. ??? If the battery is contained in a device, there needs to be a positive means to prevent activation of the device during more information on imported battery shipments. Shipping of lithium ion cells >60 WH and batteries >300 WH and lithium metal cells >5 grams lithium per cell

Pipeline and Hazardous Materials Safety Administration DOT-SP 20549 (SIXTH REVISION) EXPIRATION DATE: 2024-09-30 Packing Group Lithium ion batteries 9 UN3480 N/A Lithium ion batteries contained in equipment lithium ion battery are not subject to 49 CFR Subparts C through H of Part 172, except as specified herein.



Lithium-ion batteries (sometimes abbreviated Li-ion batteries) are a secondary (rechargeable) battery where the lithium is only present in an ionic form in the electrolyte. Also included within ???

battery where the lithium is only present in an ionic form in the electrolyte. Also included within the category of lithium-ion batteries are lithium polymer batteries. Lithium-ion batteries are generally used to power devices such as mobile telephones, laptop computers, tablets, power tools and e ???

Pipeline and Hazardous Materials Safety Administration . 1200 New Jersey Avenue, SE . Washington, DC 20590. Lithium Battery Packaging Performance Committee, the United Nations Working Group on Hazard-Based the production of lithium ion cells jumped from approximately 3 billion cells produced in 2007 to over 7 billion produced in 2017.1.

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On January 8, 2015 (), in order to harmonize its rules with international standards, the US DOT Pipeline and Hazardous Materials Safety Administration (PHMSA) amended the 49 CFR Hazardous Material Regulations to remove packing group assignments for several articles and international safety authorities decided to remove packing group assignments ???

Packaging Lithium-Ion Battery Shipments To ensure the safe and compliant transport of Li-ion batteries by air, proper packaging is essential. How these batteries are shipped dictates specific packaging and labeling requirements, and shippers must obtain certification to handle dangerous goods and adhere to relevant regulations.

The term "lithium battery" refers to a family of batteries with different chemistries. are forbidden to be shipped as cargo on a passenger aircraft. In addition, lithium-ion cells and batteries shipped by themselves must ???









UN 3480 Lithium ion batteries. Lithium i on cells and batteries are prohibited from carriage as cargo on Cathay Dragon aircraft. This applies to Section IA, IB and Section II of Packing Instruction 965. This prohibition does not apply to: ??? lithium ion cells and batteries packed with or contained in equipment (UN 3481) in accordance with PI 966



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FULLY REGULATED LITHIUM ION CELL/BATTERY REQUIREMENTS SMALL LITHIUM METAL CELL/BATTERY REQUIREMENTS MEDIUM LITHIUM METAL CELL/BATTERY REQUIREMENTS FULLY REGULATED LITHIUM frame to fit into the packaging. Reference: 49 CFR 172.102, SP 134. The information provided in this guide applies to vehicles powered only ???

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