UNDERSTANDING THE FINAL RULE ON LITHIUM BATTERIES
Highlights of PHMSA's HM-224F

REVERSE LOGISTICS

LITHIUM METAL BATTERY BAN

VOLUME
01

DANGEROUS GOODS REPORT

INSIGHTS ON ISSUES FOR SHIPPING DANGEROUS GOODS

Li+

READY FOR THE NEW REGULATIONS?

Everything you need to know to ship lithium batteries

LABELMASTER®

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VOLUME
01

DANGEROUS GOODS REPORT

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Welcome to the *Dangerous Goods Report*

The world of Dangerous Goods (DG) shipping is complex and ever-changing. For nearly 50 years, our goal at Labelmaster has been to help our clients navigate these evolving regulations so that every shipment arrives safely, compliantly and on time.

Education has always played a major part in achieving that goal, which is why we're proud to introduce the first issue of the *Dangererous Goods Report.*

In this issue, we take a look at the changing regulations regarding shipping lithium batteries. While lithium batteries have delivered superior performance and reliability in an endless array of applications, the same technology that makes them so useful also presents unique hazards for shippers, carriers and receivers. Several significant incidents involving fires in both cargo and passenger aircraft have been attributed to shipments of lithium batteries. As a result, regulations in the U.S. and around the world are being revised to enhance the safe transportation of lithium batteries.

We hope you find the information and solutions in the *Dangererous Goods Report* to be useful, and we always welcome any questions.

Alan Schoen
President of Labelmaster

ONLINE RESOURCES

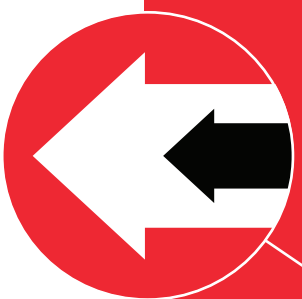
GET CONNECTED
For more information on handling lithium batteries throughout your DG supply chain, visit **labelmaster.com/lithium-battery-shipping**

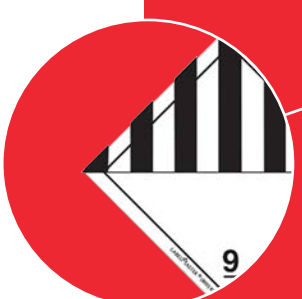
STAY INFORMED
The world of DG is constantly changing. To find updates on a wide range of DG topics, visit **blog.labelmaster.com**

HEAR FROM OUR EXPERTS
The Master Series is a collection of short videos that provides practical perspectives on current DG issues. For more, visit **labelmaster.com/masterseries**

MAINTAIN COMPLIANCE
From advanced shipping software to logistics consulting, Labelmaster Services can help keep your business on the right side of DG regulations. Visit **labelmasterservices.com**

TABLE OF CONTENTS





COVER STORY

Understanding the Final Rule on Lithium Batteries

HIGHLIGHTS OF PHMSA'S HM-224F

ON AUGUST 6, 2014, the U.S. Department of Transportation's Pipeline and Hazardous Materials Safety Administration (PHMSA) published HM-224F in the Federal Register. Several years in the making, the ruling represents a significant change in how lithium batteries will be regulated when shipped by land, sea and air in the U.S.

The ruling was designed to help bring lithium battery provisions in the U.S. Hazardous Materials Regulations (HMR) in line with international standards such as the International Civil Aviation Organization (ICAO) Technical Instructions, the International Maritime Dangerous Goods (IMDG) Code and the UN Model regulations. While this means any company involved in the transportation of lithium batteries in the U.S. will have to revise training programs and comply with new labeling requirements, the final rule on lithium batteries will simplify international shipping and help avoid frustrated shipments across borders.

Coming in at nearly 30,000 words, the ruling is complex and broad in its coverage. And it will affect a wide range of businesses—beyond those involved in the manufacturing, distribution and shipping of lithium batteries. With lithium batteries powering so many critical items in our day-to-day lives, from cell phones, laptops and cameras to implantable medical devices, power tools and vehicles, it's easy to see how this ruling will have a significant impact on commerce in this country. Voluntary compliance with the new regulations began with the publishing of the ruling in August, and **mandatory compliance begins February 6, 2015.**

A SUMMARY OF THE MAJOR CHANGES

You can find the text of the final rule on lithium batteries at **https://federalregister.gov/a/2014-18146**, and we have summarized some of the major changes in HM-224F below.

WATT-HOURS REPLACE EQUIVALENT LITHIUM CONTENT (ELC)

Under the previous regulations in the 49 CFR, shippers needed to know the "equivalent lithium content" of the batteries being shipped, which wasn't always easy to determine. The new regulations replace equivalent lithium content with the more standard measure of watt-hours (Wh), as listed below.

	Maximum Grams of ELC	Maximum Wh	"Old" 49 CFR Provisions	New 49 CFR Provision
Small	1.5 g	20 Wh	Special Provision 188	**49 CFR §173.185(c)(1)(i)**
	8 g	100 Wh	Special Provision 188	
Medium	5 g	60 Wh	Special Provision 189	**49 CFR §173.185(c)(1)(iv)**
	25 g	300 Wh	Special Provision 189	

The new provisions require small batteries to be marked with the Wh rating after December 31, 2015. In the meantime, if the capacity of a lithium battery is marked in milli-ampere hours (mAh), the watt-hours can be calculated with the following equation:

Volts x ampere hours (mAh/1,000) = watt-hours

For example, a 14.4V lithium ion laptop battery with a 3,600 mAh rating would come in at 51.84 watt-hours.

NEW, SIMPLIFIED PROPER SHIPPING NAMES AND UN NUMBERS

To align with international standards, PHMSA has adopted new proper shipping names for lithium ion and lithium metal batteries and new UN numbers (identification numbers) as well. One way the new regulations have simplified the process is by using the same numbers for batteries "contained in" and "packed with" equipment.

Proper Shipping Name	Identification Number
Lithium ion batteries	**UN3480**
Lithium ion batteries contained in/packed with equipment	**UN3481**
Lithium metal batteries	**UN3090**
Lithium metal batteries contained in/packed with equipment	**UN3091**

Actually, shippers within the U.S. have been able to use these shipping names and UN numbers since 2009, as a result of an approval issued by PHMSA, but the incorporation of these names and numbers into the hazardous materials table (HMT) found in 49 CFR §172.101 will clarify and simplify the issue for both shippers and carriers.

LOW PRODUCTION RUNS AND PROTOTYPES

Special Provision 29 (applicable to low production lithium cells and batteries) and Special Provision A55 (applicable to prototype lithium batteries shipped by air) have both been deleted and replaced by a new provision found in 49 CFR §173.185(e) entitled "Low production runs and prototypes."

This new provision is more aligned with international standards and it represents a significant improvement over the old provisions by combining the low production and prototype shipping requirements into a single section in the U.S. HMR. Additional improvements include:

- Eliminating the limits on low production cells and batteries that existed in the old Special Provision
- Clarifying that "low production" is "annual production runs consisting of not more than 100 lithium cells or batteries"; this is consistent with approvals issued by the U.S. DOT and the related provision in the ICAO Technical Instructions
- Authorizing lithium batteries that weigh 12 kg (26.5 pounds) or more and have a strong, impact-resistant outer casing to be packed in strong outer packagings or in protective enclosures (e.g., fully enclosed or wooden slatted crates), or on handling devices (e.g., pallets) instead of packages meeting the UN performance packaging requirements
- Authorizing shipments that exceed the 35 kg cargo aircraft weight limit

Many of these changes will alleviate the need to secure approvals from PHMSA for ground and rail shipments of prototype and low production cells and batteries. However, approvals will still be required for shipments by air.

THE 12/24 EXCEPTION HAS BEEN ELIMINATED

Under the old Special Provisions 188 and 189, if a package contained no more than 12 lithium batteries or 24 lithium cells, no hazard mark or documentation was required. Packages containing lithium metal batteries still required the "PROHIBITED ON PASSENGER AIRCRAFT" mark, and packages of medium cells and batteries required the "PROHIBITED ON AIRCRAFT AND VESSEL" mark, but these two provisions provided companies with a broad exception for shipping a wide range of lithium batteries.

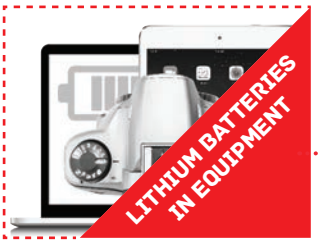
> **The new regulations don't include this 12 battery/24 cell relief, which means a lot of shipments are now going to be regulated as Dangerous Goods.**

In addition, the old Special Provisions did not distinguish between modes of transport with regard to the size of the package and type of mark that was required. The new regulations include such distinctions. These changes and the related international standards are listed below.

Exceptions for Lithium Cells and Batteries in U.S. Hazardous Materials Regulations and Related International Standards

	Li Metal Cell and Battery Limits	Li Ion Cell and Battery Limits	Modes of Transport Authorized	Related International Standard
Small cells/batteries	≤ 1 g Li metal/cell ≤ 2 g Li metal/ battery	≤ 20 Wh/cell ≤ 100 Wh/ battery	Highway, rail and sea	Special Provision 188 in IMDG Code and UN Model Regulations
Small cells/batteries	≤ 1 g Li metal/cell ≤ 2 g Li metal/ battery	≤ 20 Wh/cell ≤ 100 Wh/ battery	Air	Section II, Packing Instructions 965–970 of ICAO Technical Instructions (and IATA DG Regulations)
Medium cells/batteries	≤ 5 g Li metal/cell ≤ 25 g Li metal/ battery	≤ 60 Wh/cell ≤ 300 Wh/ battery	Highway and rail	None

The new exceptions for air transport when shipping small cells and batteries are, for the most part, consistent with Section II of Packing Instructions 965–970 of the ICAO Technical Instructions. The exceptions for highway and rail transport when shipping medium cells and batteries don't have an equivalent in the international standards, so the U.S. is unique in that it offers an exception for these medium size lithium cells and batteries when transported by highway or rail. You'll find the details in 49 CFR §173.185(c), entitled "Exceptions for smaller cells and batteries."



CELLS AND BATTERIES PACKED WITH/CONTAINED IN EQUIPMENT

When packed *with equipment,* a lithium battery may be placed in inner packaging that meets the Packing Group II performance requirements. The inner packaging can then be placed with the equipment in a strong outer packaging. Another option is to package the battery in inner packaging and then place it with equipment in an outer packaging that meets the Packing Group II performance requirements.

For lithium batteries contained *in equipment*, the packaging is no longer required to be waterproof (or made waterproof by nature of its construction).

The new language requires that the outer packaging be "constructed of suitable material of adequate strength and design in 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." Full details can be found at 49 CFR §173.185(b).

NEW PAPERWORK RETENTION REQUIREMENTS FOR MANUFACTURERS

With the addition of 49 CFR §173.185(a), lithium cell and battery manufacturers must create a record of satisfactory completion of the UN testing prior to offering the cell or battery for transport. The records must be maintained for as long as the battery design is offered for transportation and for one year thereafter. The record also must be made available to an authorized representative of the federal, state or local government upon request.

SHIPPING LITHIUM CELLS OR BATTERIES FOR DISPOSAL OR RECYCLING

This new section—49 CFR §173.185(d)—is a significant improvement. It clarifies that the relief provided in this provision applies to all cells and batteries (and equipment containing them) that are transported by motor vehicle. The relief includes exceptions from UN testing (and related recordkeeping requirements) and UN performance packaging requirements. In addition, small and medium cells and batteries that meet the size, packaging and hazard communication conditions are authorized as excepted shipments when transported by motor vehicle. That is, the shipments do not need to be offered as Class 9 hazardous materials.

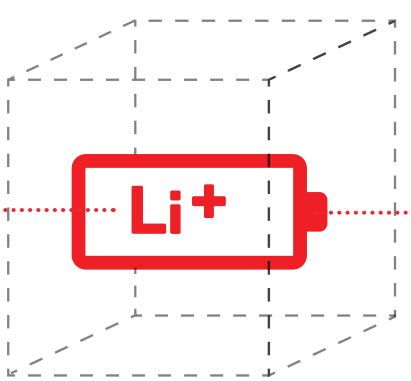
DAMAGED, DEFECTIVE OR RECALLED CELLS OR BATTERIES

For the first time, the U.S. HMR will contain a provision authorizing the transport of damaged or defective lithium cells and batteries, which will alleviate the need to secure approvals from PHMSA for these types of shipments. This new provision is not completely aligned with the new regulations adopted by the UN Sub-Committee of Experts that go into effect January 1, 2015. However, in some cases the packaging requirements in this new provision are less complex and may be easier to comply with than those contained in the UN Model Regulations, 18th Revised Edition. These shipments will need to be offered as fully regulated, Class 9 hazardous materials. More details can be found in 49 CFR §173.185(f).

IN CONCLUSION

The final rule on lithium batteries (HM-224F) brings significant changes to the way lithium batteries must be transported in the U.S. While the "12/24" exemption that many companies relied upon has been eliminated (shipping even a single AA lithium battery will require new procedures to be followed), the new regulations should help streamline shipments both in the U.S. and abroad.

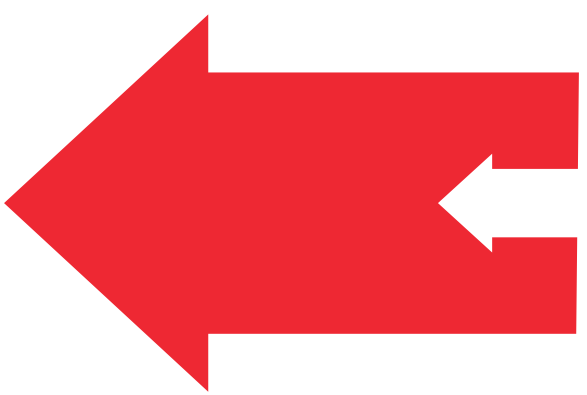
As always, if you have any questions about how the final rule on lithium batteries will affect your business, Labelmaster is ready to help.



REVERSE LOGISTICS

NEW LITHIUM BATTERY REGULATIONS IMPACT return shipments

While the new regulations on shipping lithium batteries will undoubtedly impact a wide range of businesses that deal with either lithium batteries or any kind of electronic equipment that uses them, there's another side of the supply chain that will be affected as well—reverse logistics.



"Reverse logistics" refers to consumer products going back into the supply chain, either back to a manufacturer or retailer (which, in turn, sends them to the manufacturer), or when consumer products are shipped for disposal/recycling.

No matter what direction a package travels in the supply chain, if it contains lithium batteries, the regulations will apply for proof-of-testing requirements, packaging, labeling and documentation.

In cases where consumers are sending products back to retailers or manufacturers, the consumers are unlikely to be aware of the new regulations. This is something manufacturers should take into consideration, whether that means creating return-capable packaging for products containing lithium batteries or including a notice regarding the additional shipping regulations.

For cases where lithium batteries (or devices that contain them) are being shipped for disposal or recycling, the final rule on lithium batteries adds a new section dealing specifically with this topic—49 CFR §173.185(d). Small or medium batteries that would have been classified as fully regulated are now exempt when transported by motor carrier. ◆

Labelmaster carries a complete line of labels, forms, markings, packaging and software to support safe and compliant reverse logistics, and we also provide training publications and resources that address lithium battery regulations for DG professionals.

BAN

ON LITHIUM METAL BATTERIES

IN CARGO ON PASSENGER AIRCRAFT

AS OF JANUARY 1, 2015, the International Civil Aviation Organization (ICAO) prohibits the carrying of lithium metal batteries as cargo in passenger airplanes. This ban applies to lithium metal (non-rechargeable batteries, also known as "primary" batteries) when they are shipped independently (i.e., not contained in or packaged with equipment). The ruling comes as a response to several instances where shipments of lithium metal batteries have caught fire in cargo holds, resulting in damage to aircraft and putting passenger lives at risk. The new restrictions will be published in the 2015-2016 Edition of the ICAO Technical Instructions.

The United States has already instituted its own ban on lithium metal batteries as cargo in passenger aircraft coming into or out of the country, so this ruling will primarily affect international shipments. ◆

How will the final rule on lithium batteries affect you?

Q&A WITH BOB RICHARD, VICE PRESIDENT OF REGULATORY AFFAIRS AT LABELMASTER

Bob Richard is responsible for providing Dangerous Goods regulatory assistance to customers worldwide by drawing on his experience and an extensive network of Dangerous Goods professionals. Bob previously worked with the Pipeline and Hazardous Materials Safety Administration (PHMSA) at the U.S. Department of Transportation.

Q: So, what is this "final rule" and where did it come from?

A: For the past five years or so, PHMSA has been working to align the U.S. regulations for shipping lithium batteries with international standards. Back in January 2010, they published the first of three proposed rulemaking notices that would have made significant changes to the U.S. HMR. These included eliminating the exceptions for almost all air shipments of lithium batteries and lithium batteries with equipment, modifications to UN testing requirements, marking for batteries to certify UN testing and new training for all shippers. And they were going to allow 75 days to comply with the new regulation after publication of the final rule. Fortunately, none of these changes were adopted.

Since that first proposal was published, PHMSA has received feedback from battery and device manufacturers, airlines and pilots, retailers, members of Congress and industry trade organizations. They also hosted a public meeting to discuss the proposed rule changes and reviewed transportation incidents involving lithium batteries. The next published proposals, in April 2012 and January 2013, provided PHMSA with additional feedback and insights, resulting in the final version we have now that was published on August 6, 2014.

Q: How has the final rule on lithium batteries changed the landscape?

A: Before PHMSA published the final rule on lithium batteries, the regulations for shipping lithium batteries in the U.S. were inconsistent with international standards. They were pretty lenient with regard to shipping by road and by air because they offered broad exceptions to the labeling, packaging and documentation requirements for smaller shipments. So, there were a lot of companies that could "fly under the radar" with excepted packages. Now, the regulations have been aligned for road, sea and air. While that means more regulations for U.S. shippers to navigate, it simplifies things, really, especially with international shipments. Companies don't need two ways of doing things, and they don't have to maintain two training programs.

Q: What's the biggest single change in the new rule?

A: The biggest single change in the final rule on lithium batteries is the elimination of the exception for packages with no more than 12 lithium batteries or 24 lithium cells. Under the old Special Provisions 188 and 189, if a package contained no more than 12 batteries or 24 cells, no hazard mark or documentation was required—except that packages containing lithium metal batteries required the "PROHIBITED ON PASSENGER AIRCRAFT" mark, and packages of "medium" cells and batteries required the "PROHIBITED ON AIRCRAFT AND VESSEL" mark.

The new regulations no longer include this 12 battery/24 cell relief. In addition, the old Special Provisions 188 and 189 didn't distinguish between modes of transport in terms of the size of the package and type of mark required. With these new regulations, there are such distinctions.

Hear Bob Richard's practical perspectives on how to ship lithium batteries in our short video at labelmaster.com/masterseries

Q: What kinds of companies will be affected the most?

A: These regulations affect just about any company, not just those that ship lithium batteries as a commodity. Lithium batteries are all around us—cell phones, laptops, tablets, toys, medical devices, cameras—they're everywhere. Companies that were shipping excepted quantities are going to need to reclassify their products, train their employees and put new operating procedures in place to comply. Even companies that simply need to ship new cell phones or laptops to field agents will need guidance on packaging, labeling and documenting these shipments now.

Q: How will the new regulations affect "reverse logistics"?

A: There are two areas to consider with reverse logistics. One is the consumer who has to return something containing a lithium battery to a supplier, manufacturer or retailer. That's hard to control, and a company is not liable if the consumer ships something back improperly. Ideally, the product packaging should be compliant for returning the item and contain the necessary labeling and documentation. But, companies should at least give consumers a warning that they're shipping something with a lithium battery, and that requires extra attention.

Retailers like big box electronics stores that handle large volumes of returns are going to have to make sure their shipments comply with the marking and labeling requirements, all packaging passing the 1.5 meter drop test, and so on.

One area of reverse logistics that the new regulations have made simpler is shipping batteries for disposal or recycling. Small batteries transported for recycling or disposal were previously required to go as fully regulated shipments, but now there's an exception written specifically for them. And they don't require the proof of testing like new batteries do.

Q: How else have the new regulations made things easier for shippers?

A: Shipping of prototypes and low production runs. The new regulations make it easier to ship prototypes and they've redefined what a low-production run is, so that's good for manufacturers, but manufacturers still need approval for shipment by air.

Q: Are there more changes ahead?

A: The regulations are constantly changing, and they'll continue to change in the years to come. Right now, PHMSA is working on HM-215M, which would further harmonize lithium battery requirements with international standards beyond what was adopted in the final rule on lithium batteries (HM-224F). Shippers, carriers, manufacturers—everyone in the business of shipping DG needs to stay up to date on what's going on in the industry.

SO, WHAT HAPPENS ON FEBRUARY 6, 2015?

When the regulations go into effect, if people have not changed their operations and packaged their shipments appropriately, the carriers are going to reject their shipments. And it's not just the potential for a violation or a fine that's going to be the issue. When shipments are being frustrated by the carrier, products aren't moving and customers' needs aren't being met.

That's a problem. A company that has to get its product to the market can't have something held up in the airport for five days while it sorts out the shipping problems. ◆

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Our team of well-connected experts is here to personally assist you—industry gurus who can help you translate the regs for even the most specific lithium battery shipping issues.

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FORMS

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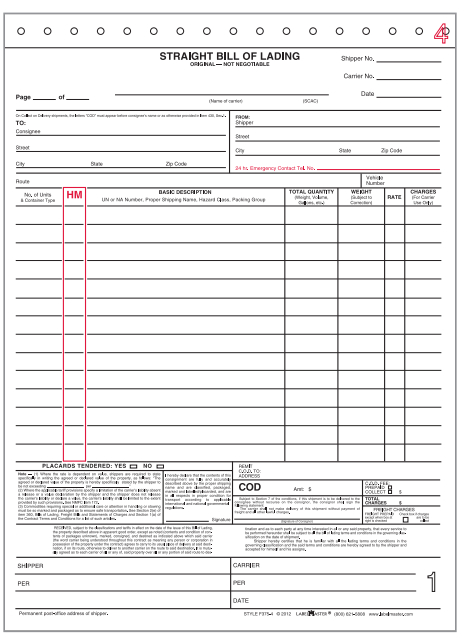
Lithium Battery Shipping Paper Tabs

LT225

Labelmaster's lithium battery shipping paper tabs instantly bring attention to special handling instructions noted on your hazmatshipping forms. They can also be used to flag DOT forms.



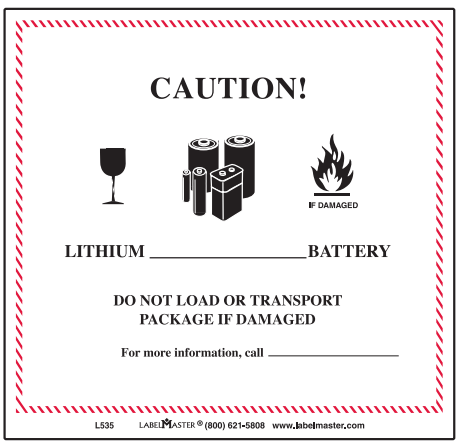
Straight Bill of Lading Form

F375-4

Stay compliant when transporting a combination of hazardous and non-hazardous goods with Labelmaster's Straight Bill of Lading forms. Available in laser printer, snap-out and pin-feed formats, these forms include space for the UN/ID number, shipper's name, class/division and packing group. When your business involves transporting a combination of hazard and non-hazard class products, using these forms enables you to easily meet the documentation requirements of 49 CFR 172.200 and be compliant.

LABELS

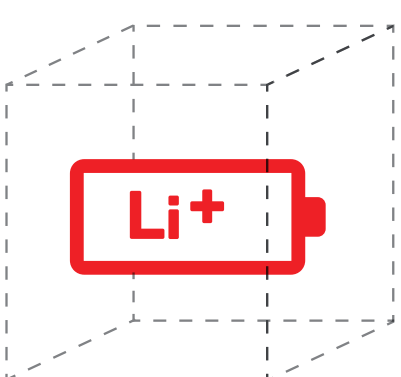
Visit labelmaster.com/labels/battery-labels

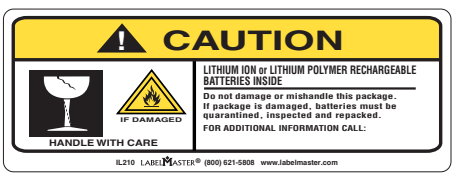


Lithium Battery Handling Labels

L535

Safely transport your lithium battery packages by air with Labelmaster's lithium battery handling labels. With the recent changes in lithium battery shipping regulations, these handling labels may be required on packages carrying lithium ion or metal batteries. Available in paper or PVC-free vinyl, these labels are designed in accordance with the hazardous material transport regulations. You can rest easy because the labels' regulatory compliance, chemical and abrasion resistance, durability and strong adhesion help ensure a worry-free, on-time shipping solution.

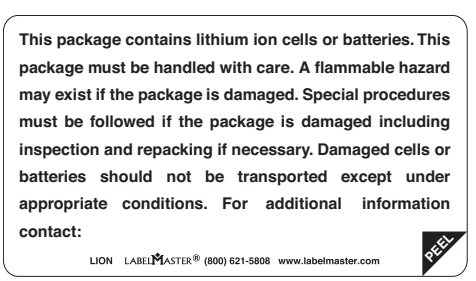




Lithium Battery Markings

IL210P

These lithium battery markings are used on packages of rechargeable lithium ion or polymer batteries or non-rechargeable lithium metal batteries, and may be used to help meet the revised marking requirements contained in 49 CFR 173.185(c). The markings include space to add the appropriate telephone number for additional information. Our stock markings allow you to fill in the telephone number yourself or, if you prefer, you can order our custom markings and we'll personalize them for you.



Lithium Battery Peel Away Documents

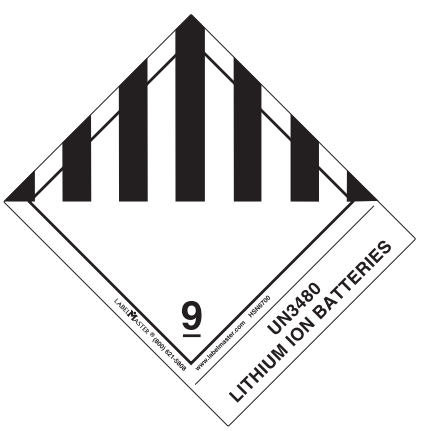
Style # LION

These documents provide hazard communication information that the package contains lithium batteries or cells and must be handled with care because a flammable hazard may exist if the package is damaged. It explains that special procedures must be followed if the package is damaged and that damaged lithium batteries or cells should not be transported except under appropriate conditions. The document also has space for your contact telephone number.

Lithium Battery Damaged/Defective Labels

L485

These lithium battery damaged/defective markings are used on packages of lithium ion, polymer or metal batteries to indicate that they contain lithium batteries that either have been damaged or are defective. These markings may be used to meet the new 49 CFR 173.185(f) requirement for marking shipments of damaged or defective lithium cells or batteries.



Proper Shipping Name Labels

HSN6700R

Take advantage of a comprehensive label solution when transporting batteries with Labelmaster's proper shipping name labels. Available in rugged paper, these Hazard Class 9 labels feature not only the proper markings to help you stay in compliance with DOT standards, but also pre-printed tabs for specific battery types. Keep your focus on the task at hand. We've already done all the testing to ensure these labels meet the standards of 49 CFR, ICAO and other international air regulations, to help your shipments arrive on time and fully compliant.

PACKAGING

Visit labelmaster.com/un-packaging

Battery Shipping Kit

BBUA999BS

Opt for an all-in-one solution when you choose Labelmaster's battery shipping kits. These include a lithium battery package, proper shipping name label, Hazard Class 9 label, Cargo Aircraft Only label, lithium battery label and (10) Shipper's Declaration for Dangerous Goods forms. UN-tested, these packaging kits help ensure safe shipment of lithium batteries and meet the requirements of Procedure 1A. Simply place your lithium battery inside the provided plastic liner bag, fill void spaces with Bubble Wrap® (sold separately), affix labels and you're ready to ship—quickly, easily, economically and safely.

Retention Packaging Kit

KVUBX1

Protect your products from shock and vibration when you ship with Labelmaster's retention packaging kits. Ideal for items that require a limited degree of protection, the design suspends your product in the airspace of the shipping container between two layers of resilient, low-slip film. An easy-to-use, efficient and economical way to ship, our packaging helps save you both time and money.

Lithium Battery Prototype Shipper

KLITDRM8

Transport lithium batteries safely and legally with Labelmaster's lithium battery shippers. Designed to ship a variety of lithium batteries, this packaging solution includes a corrugated box and a steel drum, both made to pair with Anti-Static Bubble Wrap® (sold separately) as a cushion. Lithium batteries may pose a serious fire hazard if they are damaged or if they short circuit—ship securely and stay in compliance when you choose this reliable shipping packaging.

Lithium Battery Box

UA999BS

Ship individual lithium batteries the easy and economical way with Labelmaster's lithium battery boxes. These small boxes enable you to ship articles by all modes of transport, and are available in a variety of convenient sizes. Simply pair the right box for the job with Anti-Static Bubble Wrap® (sold separately). The result is an effortless, economical and reliable way to ship safely and securely.

Battery Box

UABB85R

Ship the easy way with Labelmaster's battery boxes. These UN-certified boxes include a corrugated box, honeycomb insert, tape and liner bag, and have been thoroughly tested for shipping batteries and other solid hazardous materials. Compliant with Procedure 1A requirements, these offer a convenient solution to your packaging needs—simply add vermiculite for absorption and know that you're shipping safely.

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SOFTWARE

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ShipMate® Battery Shipping Training

SMBN00S

This professionally narrated online training satisfies DOT general awareness, DOT general safety, HM security awareness and lithium battery transportation training requirements. The nine modules include interactive examples and address lithium metal, lithium ion and other types of batteries.

Lithium Battery Advisor

DGISLBA

The DGIS Lithium Battery Advisor is the first tool of its kind developed to simplify the complicated process of shipping lithium batteries by air. Simply answer a few questions about your battery or device, such as what type of lithium battery is being shipped or whether the battery is contained in equipment. The DGIS Lithium Battery Advisor will then produce a guidance document for your lithium battery shipment that contains useful, relevant information including general instructions, required packaging and labels, sample shipping documentation, and labeling and marking diagrams.

BOOKS

Visit labelmaster.com/49-CFR

Early 49 CFR — Parts 100–185

EARLY0027

Stay up to date with the most current regulatory updates when you rely on Labelmaster's Early 49 CFR, revised October 2014. This version is released about six months prior to the release of the government 49 CFR, and serves as an update to Parts 100–185. Featuring the same format as the government release, this standard edition is designed with a user-friendly layout that makes it even easier to find information.

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