

Lithium Battery Shipping with USPS

Lithium Metal (non-rechargeable)

Lithium-Ion (rechargeable)



Nonmailable - Lithium Batteries

The Lithium Batteries that power up these types of equipment exceeds the 100 Wh. (Watt Hours) restriction per Pub 52 policy. (i.e., Scooters, Hoover boards, electric skateboards and ebikes)

Formula: Amps X Volts = Watt Hours



Single Cell versus Multi-Cell?

Single Cell

Cellphones, Watches, Vape devices.



Total watt-hour per cell must not exceed **20 Wh.** (Watt-hour)

Multi Cell

Multiple cells inside the housing or casing.



Total watt-hour rating for each battery must not exceed **100 Wh.** (Watt-hour)

Lithium Batteries – Domestic Shipping with USPS

Lithium Metal



Lithium-Ion Rechargeable



- Domestic via Air – 8 cells or 2 batteries max, Must be mailed with or installed in the **New or Manufacturer Certified Refurbished (MCR)** equipment it operates in the same package. (11 lbs. package limit for Lithium Metal Battery)
- Domestic - Individual Batteries – Permitted via Surface or Ground Transportation only. (5 lbs. package weight limit)

Packaging Instruction 9D - Domestic

(Domestic Mail - Lithium Battery)

Click link → https://pe.usps.com/text/pub52/pub52apxc_032.htm

Required Packaging

Lithium Metal and Lithium-ion Batteries

- Packaging must meet all applicable requirements specified in 49 CFR 173.185. Except for mailpieces containing button cell batteries properly installed in the equipment they are intended to operate, mailpieces containing mailable lithium metal or lithium-ion batteries must be rigid, sealed, and of adequate size, so the lithium battery mark can be affixed to the address side without the mark being folded.
- Packaging must be strong enough to prevent crushing of the package or exposure of the contents during normal handling in the mail.

Exception: DOT label is optional if no more than 4 cells or 2 batteries inserted in the equipment it operates (i.e., inside the cellphone or Tablet).

2018

USPS Packaging Instruction 9D | Postal Explorer

- The use of padded and poly bags as outer packaging is permitted only when the mailpieces contain button cell batteries meeting the classification criteria in 349.11d, the batteries are properly installed in the equipment they are intended to operate, and the batteries are afforded adequate protection by that equipment.
- All outer packages must have a complete delivery and return address.

USPS Packaging Instructions (All Lithium Battery Mailings)

Mandatory Requirement, Rigid Container Example:



Note: Except Small Button Cell type batteries, if installed in the equipment it operates, are permitted in Padded envelope or Poly bag type outer packaging.

Marking Requirement Exception (Lithium Battery Installed in the Equipment)

- Must be installed in the new or MCR* equipment it operates
- **Maximum of up to 4 cells or 2 batteries**
- **No Lithium Battery marking** required
- May ship via air eligible FCM, Priority Mail, or Priority Express.

Examples:

- *1 or 2 Laptops or Power Tools with the battery installed*
- *up to 4 single cell battery devices (i.e., older cellphones, watches) with the batteries installed*



*MCR – Manufacturer Certified Refurbished

Packaging Instruction 9D - Domestic

(Domestic Mail - Lithium Battery)

DOT Approved Lithium Battery Markings



New marking use for Lithium Ion battery packed with or in device (*Permitted via Air*)



New marking use for Lithium Metal battery packed with or in device (*Permitted via Air*)



New marking use for Lithium Ion Individual Battery. NO device in box (*via Surface Only*)



New marking use for Lithium Metal Individual Battery. NO device in box (*via Surface Only*)

Marking Requirement



Marking use for Lithium Metal battery packed with device (*Permitted via Air*)



Marking use for Lithium Ion battery packed with device (*Permitted via Air*)

Air Eligible Markings via FCM or Priority Mail (Domestic)



Marking Requirement

- Packed with the new or MCR device it operates, but not installed
- Up to 2 laptops shipped with the battery, but not installed
- 5 to 8 cells (installed) in the same package
- May ship via air eligible FCM, Priority Mail, or Priority Express
- Weight Limit – 11 lbs. *limit applicable to Lithium Metal Battery only**



Photo A- Lithium Metal*

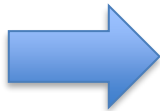


Photo B- Lithium Ion

Knowledge check: Customer wants to mail a new laptop with a spare battery. What is the requirement?

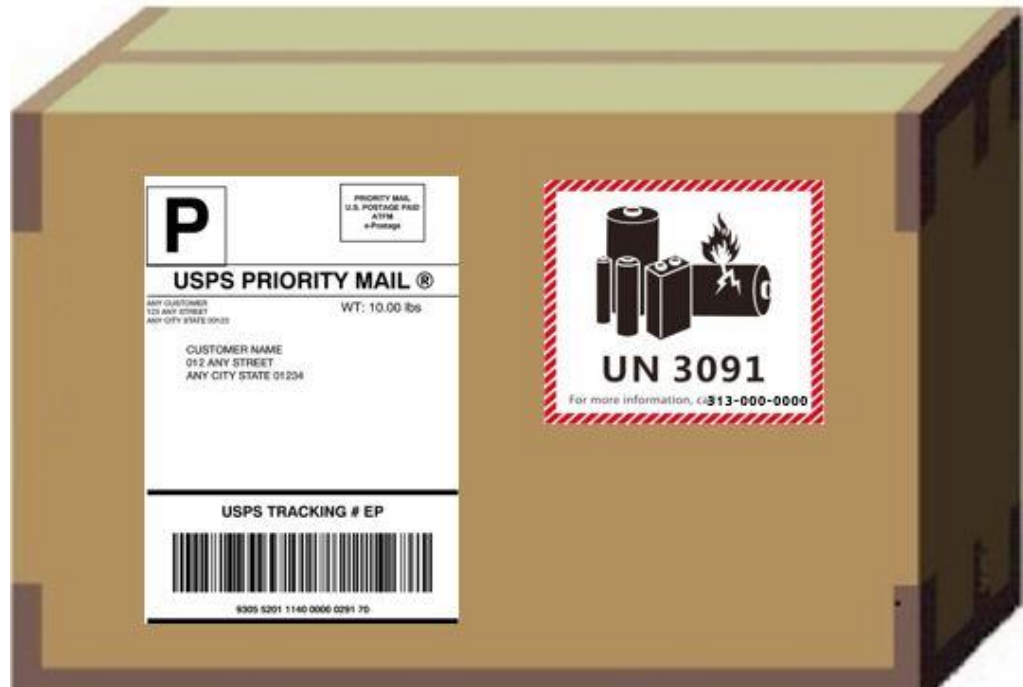
Answer:

Since one of the batteries is uninstalled shipped with the equipment, the UN3481 lithium battery mark is required



Knowledge check: Customer wants to mail a camera and 4 AA lithium non-rechargeable batteries (lithium metal), separated in the box.

Answer: Since the lithium metal batteries are not installed in the camera being shipped, the UN3091 lithium battery mark is required



Marking Requirement



Marking use for Lithium Metal Individual Battery. NO device in box *(via Surface Only)*



Marking use for Lithium-Ion Individual Battery. NO device in box *(via Surface Only)*

NOT Air eligible. Accepted via Surface Transportation Only.
(Retail Ground, Parcel Select, PS Lightweight)



Marking Requirement (Individual Battery, without the equipment)

- May ship via Surface Only products (e.g., Retail Ground, Parcel Select)
- Must accompany required text markings
- Mailpiece Weight Limit – 5 lbs.
- Damaged/Recalled Batteries are **PROHIBITED**, requires approval.



Photo A- Lithium Metal



Photo B- Lithium Ion

Knowledge check: Customer wants to mail a lithium battery power bank via Priority?

Answer: NOT acceptable for Air, only via Surface and must display the required markings, including the UN3480



Knowledge check: Customer wants to mail a spare lithium-ion battery by itself?

Answer: Mailable via Surface Only and must display the required markings, including the UN3480



Used, Damaged or Defective Electronic Devices or Equipment with Lithium Batteries

On June 6th, 2022 the Postal Service issued a rule:

- Used, damaged or defective electronic devices packed with or containing lithium batteries prohibited in air transportation domestically.
- The prohibition disallowed these devices to be mailed to international and APO/DPO/FPO destinations. Including domestic territories that require a customs form.
- The devices must be marked with “Restricted Electronic Device” and “Surface Transportation”



Knowledge check: Customer wants to ship a used tablet computer?

Answer: Must use surface only mail product and apply the required markings as shown below:



Prohibited Labels/Marks



Prohibited Labels/Marks

The presence of these labels (see arrows below) indicates the lithium battery contents is fully regulated and exceeds what is allowed in the US Mail.



Packaging Instruction 9D

(Domestic Mail - Lithium Battery Chart)

Domestic Lithium Battery Mailability Exhibit

	Surface Transportation	Air Transportation ¹	Mailpiece Limitations ²
Lithium Metal or Lithium Alloy Batteries^{3, 4} <i>Small, non-rechargeable, consumer-type batteries</i>			
Contained in (properly installed in equipment)	Mailable	Mailable	8 cells or 2 batteries 11 lbs.
Packed with equipment, but not installed in the equipment	Mailable	Mailable	8 cells or 2 batteries 11 lbs
Without the equipment they operate (individual batteries in originally sealed packaging)	Mailable	Prohibited	5 lbs.
Lithium-ion or Lithium Polymer Batteries^{5, 6} <i>Small, rechargeable, consumer-type batteries</i>			
Contained in (properly installed in equipment)	Mailable	Mailable	8 cells or 2 batteries
Packed with equipment, but not installed in the equipment	Mailable	Mailable	8 cells or 2 batteries
Without the equipment they operate (individual batteries in originally sealed packaging)	Mailable	Prohibited ⁷	5 lbs.
Very Small Lithium Metal or Lithium-ion Batteries^{8, 9} <i>Exception for very small consumer-type batteries in USPS air transportation</i>			
Contained in (properly installed in equipment)	Mailable	Mailable	No limit on cells/batteries 5.5 lbs.
Packed with equipment, but not installed in the equipment	Mailable	Mailable	No limit on cells/batteries 5.5 lbs.
Damaged, Defective, or Recalled Batteries	Prohibited, unless approved by the director, Product Classification.		

Lithium Batteries Shipping with USPS

International, or to and from APO/FPO/DPO.

Including Domestic territories that require a customs form.

Lithium Metal



Lithium-Ion Rechargeable



Important: Mailable Lithium Battery must be installed inside the device

- **International** – Maximum of 4 cells or 2 batteries, **must be installed in the NEW or Manufacture certified refurbished equipment or Device it operates, and NO lithium battery markings.**
- **Individual or Stand-alone Batteries – PROHIBITED**

This document is a supplemental guide to Publication 52, Packaging Instructions 9E

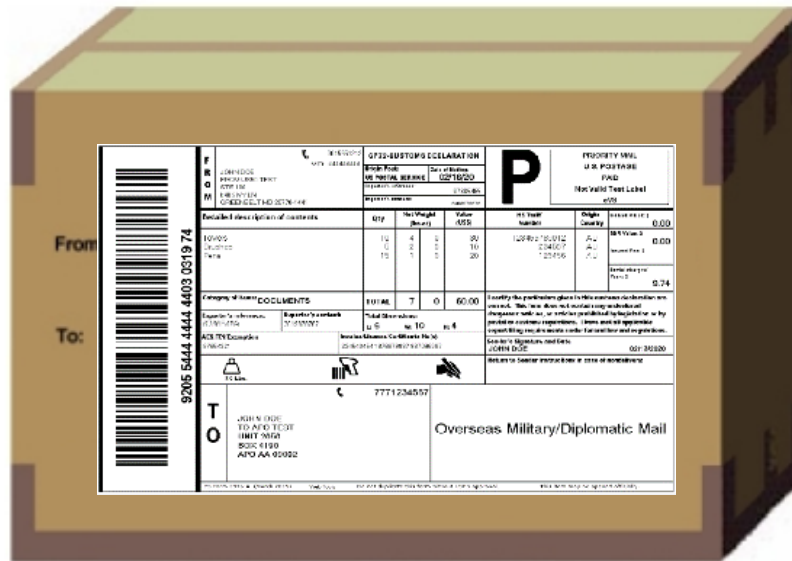
Packaging Instruction 9E – Lithium Battery

International, or to and from APO/FPO/DPO.

Including Domestic territories that require a customs form.

- Must be installed in the new or manufacturer certified refurbished equipment it operates
- Maximum of 4 cells or 2 batteries
- **No DOT Lithium Battery markings** on the package
- Destination country must allow Lithium Batteries in the mail (check the IMM for destination country prohibited items click → https://pe.usps.com/text/imm/ab_toc.htm)

Example of a properly prepared package:



Must be in a
Rigid Container

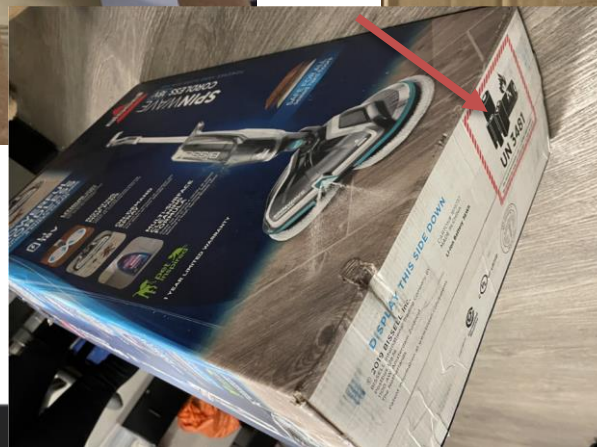
Lithium Batteries Shipping with USPS

International, or to and from APO/FPO/DPO.

Including Domestic territories that require a customs form.

Prohibited Markings

Although these markings (UN3481 or UN3091) are permitted domestically, internationally, it is not allowed.



Packaging Instruction 9E – Lithium Battery Chart

International, or to and from APO/FPO/DPO. Including Domestic territories that require a customs form.

International Lithium Battery Mailability Exhibit

	International APO/FPO/DPO ^{1, 2}	Mailpiece Battery Limit ³
Lithium Metal or Lithium Alloy Batteries 4, 5		
<i>Small, non-rechargeable, consumer-type batteries</i>		
Contained in (properly installed in equipment)	Mailable	Maximum of 4 cells or 2 batteries
Packed with equipment, but not installed in the equipment	Prohibited	
Without the equipment they operate (individual batteries in originally sealed packaging)	Prohibited	
Lithium-ion or Lithium Polymer Batteries 6, 7		
<i>Small, rechargeable, consumer-type batteries</i>		
Contained in (properly installed in equipment)	Mailable	Maximum of 4 cells or 2 batteries
Packed with equipment, but not installed in the equipment	Prohibited	
Without the equipment they operate (individual batteries in originally sealed packaging)	Prohibited	
Very Small Lithium Metal or Lithium-ion Batteries 8, 9		
<i>Exception for very small consumer-type batteries in international mailings</i>		
Contained in (properly installed in equipment)	Mailable	Maximum of 4 cells or 2 batteries
Packed with equipment, but not installed in the equipment	Prohibited	
Without the equipment they operate (individual batteries in originally sealed packaging)	Prohibited	

QUESTIONS?

HAZMAT Guidance

ProductClassification@usps.gov

[HAZMAT Shipping Safety Guide |
USPS Delivers](#)

[Publication 52 - Hazardous,
Restricted, and Perishable Mail |
Postal Explorer \(usps.com\)](#)

General Mailability Guidance

postalexplorer@usps.gov

United States Postal Inspection
Service

HAZMAT@uspis.gov

24hr Hotline 877-876-2455