



DYNAMIC

LIFECYCLE INNOVATIONS

BATTERY PACKAGING GUIDELINES

GIVING ELECTRONICS THEIR NEXT BEST LIFE

Proper packaging of batteries, no matter the size or chemistry, ensures safe transportation, sorting, and responsible recycling.

Shipping batteries without proper terminal protection is a violation of U.S. Department of Transportation (DOT) hazardous materials regulations due to the risk of short circuits and fire. All batteries must be taped, sorted, and packaged according to best practices prior to shipment.

This guide provides step-by-step instructions to correctly package the following battery types and materials:

- Alkaline
- Zinc Carbon
- Nickel Metal Hydride
- Nickel Cadmium
- Lead-acid
- Lithium primary
- Lithium-ion and lithium-ion polymer
- Battery-containing devices

For additional regulatory information, reference the links from the DOT Guidelines below:

[§ 173.159 Batteries, Wet](#)

[§ 173.159a, Exceptions for non-spillable batteries](#)

[§ 173.185, Lithium cells and batteries](#)

[§ 173.189, Batteries containing sodium or cells containing sodium](#)

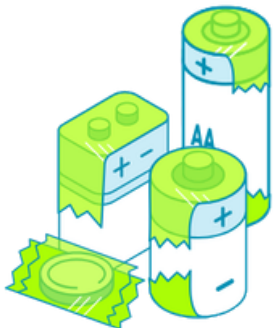
Alkaline (ALK)

Storage & Packaging Requirements:

- All Alkaline batteries shall be packaged, labeled, and shipped in full compliance with applicable U.S. Department of Transportation (DOT) regulations. Shipments must utilize DOT-required packaging and display all required DOT-compliant markings and labels, including applicable hazard placards and UN identification numbers.
- Label container as Universal Waste Batteries.
- Shrink wrap full Gaylord / container overlapping the pallet to secure the load.

Common in:

- Remotes
- Computer mice
- Clocks
- Flashlights
- Toys
- Radios



UNIVERSAL WASTE	
SHIPPER	_____
ADDRESS	_____
CITY, STATE, ZIP	_____
CONTENTS	_____
ACCUMULATION START DATE	_____

Zinc Carbon (ZnC)

Handling Requirements:

- Cover all battery contact terminals using clear, non-conductive tape.
- Do not place loose batteries directly into containers without terminal protection or individual bagging.

Common in:

- Remotes
- Computer mice
- Clocks
- Flashlights
- Toys
- Radios

Storage & Packaging Requirements:

- All Zinc Carbon batteries shall be packaged, labeled, and shipped in full compliance with applicable U.S. Department of Transportation (DOT) regulations. Shipments must utilize DOT-required packaging and display all required DOT-compliant markings and labels, including applicable hazard placards and UN identification numbers.
- Label container as Universal Waste Batteries.
- Shrink wrap full Gaylord / container overlapping the pallet to secure the load

D C AA AAA 9-Volt Lantern



Dynamic Lifecycle Innovations does not return improperly packaged material and does not provide sorting or taping services.

All batteries must be taped and sorted before shipment, as required under U.S. Department of Transportation (DOT) hazardous materials regulations to prevent short circuits during transport.

Non-compliant shipments are subject to fines to cover additional labor costs. Repeat violations may result in further fees.

- Use clear non-conductive tape to cover all contact terminals.
- Do not place loose batteries directly into containers without terminal protection or individual bagging.

- All Nickel Metal Hydride batteries shall be packaged, labeled, and shipped in full compliance with applicable U.S. Department of Transportation (DOT) regulations. Shipments must utilize DOT-required packaging and display all required DOT-compliant markings and labels, including applicable hazard placards and UN identification numbers.
- Label container as Universal Waste Batteries.
- Shrink wrap full Gaylord / container overlapping the pallet to secure the load.

- Rechargeable AAs
- Power tools
- Laptops
- Cell Phones
- Server RAM/controller cards



Dynamic Lifecycle Innovations does not return improperly packaged material and does not provide sorting or taping services.

All batteries must be taped and sorted before shipment, as required under U.S. Department of Transportation (DOT) hazardous materials regulations to prevent short circuits during transport.

Non-compliant shipments are subject to fines to cover additional labor costs. Repeat violations may result in further fees.

Nickel Cadmium (Ni-Cd)

Handling Requirements:

- Use clear non-conductive tape to cover all contact terminals.
- Do not place loose batteries directly into containers without terminal protection or individual bagging.

Common in:

- Solar equipment
- Remote controlled toys
- Cordless house phones
- Cell phones
- Walkie-talkies
- Power tools.

Storage & Packaging Requirements:

- All Nickel Cadmium batteries shall be packaged, labeled, and shipped in full compliance with applicable U.S. Department of Transportation (DOT) regulations. Shipments must utilize DOT-required packaging and display all required DOT-compliant markings and labels, including applicable hazard placards and UN identification numbers.
- Label container as Universal Waste Batteries.
- Shrink wrap full Gaylord / container overlapping the pallet to secure the load.



Dynamic Lifecycle Innovations does not return improperly packaged material and does not provide sorting or taping services.

All batteries must be taped and sorted before shipment, as required under U.S. Department of Transportation (DOT) hazardous materials regulations to prevent short circuits during transport.

Non-compliant shipments are subject to fines to cover additional labor costs. Repeat violations may result in further fees.

Lead acid

(VRLA, AGM, VLA, Gel, Non-spillable, Spillable, Automotive, Flooded, Steel Cased)

Handling Requirements:

- Protect terminals with non-conductive caps, clear tape, or cardboard.

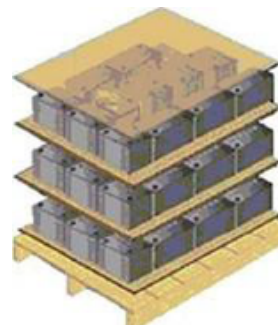
Storage & Packaging Requirements:

- All Lead Acid batteries shall be packaged, labeled, and shipped in full compliance with applicable U.S. Department of Transportation (DOT) regulations. Shipments must utilize DOT-required packaging and display all required DOT-compliant markings and labels, including applicable hazard placards and UN identification numbers.
- Label as Universal Waste and Class 8.
- Place a layer of cardboard between each layer of batteries and on top
- Stack batteries approx. 3 feet high

Common in:

- Medical equipment
- Small motorized vehicles
- Emergency lighting
- Automotives

Do not ship Damaged or leaking lead acid batteries without approval



Dynamic Lifecycle Innovations does not return improperly packaged material and does not provide sorting or taping services.

All batteries must be taped and sorted before shipment, as required under U.S. Department of Transportation (DOT) hazardous materials regulations to prevent short circuits during transport.

Non-compliant shipments are subject to fines to cover additional labor costs. Repeat violations may result in further fees.

Lithium Primary

Handling Requirements:

- Use clear non-conductive tape to cover all contact terminals.
- Do not place loose batteries directly into containers without terminal protection or individual bagging.
- Do not mix lithium primary batteries with any other battery chemistry.

Common in:

- Watches
- Calculators
- Cameras
- Key Fobs
- Circuit Boards of Desktops, laptops, and servers

Storage & Packaging Requirements:

- All Lithium Primary batteries shall be packaged, labeled, and shipped in full compliance with applicable U.S. Department of Transportation (DOT) regulations. Shipments must utilize DOT-required packaging and display all required DOT-compliant markings and labels, including applicable hazard placards and UN identification numbers.
- Place a layer of cardboard between each layer of batteries.
- Shrink wrap full Gaylord / container overlapping the pallet to secure the load.
- Label as Universal Waste and Class 9.



Lithium batteries must be packaged separately from all other battery chemistry.



Dynamic Lifecycle Innovations does not return improperly packaged material and does not provide sorting or taping services.

All batteries must be taped and sorted before shipment, as required under U.S. Department of Transportation (DOT) hazardous materials regulations to prevent short circuits during transport.

Non-compliant shipments are subject to fines to cover additional labor costs. Repeat violations may result in further fees.

Lithium Ion, Lithium Ion Polymer

Handling Requirements:

- Use clear non-conductive tape to cover all contact terminals.
- Individually wrap each battery.

Common in:

- Laptops
- Cell phones & tablets
- MP3 players
- Wireless controllers
- Key fobs
- Watches

Storage & Packaging Requirements:

- All Lithium Primary batteries shall be packaged, labeled, and shipped in full compliance with applicable U.S. Department of Transportation (DOT) regulations. Shipments must utilize DOT-required packaging and display all required DOT-compliant markings and labels, including applicable hazard placards and UN identification numbers.
- Label as Universal Waste and Class 9



Dynamic Lifecycle Innovations does not return improperly packaged material and does not provide sorting or taping services.

All batteries must be taped and sorted before shipment, as required under U.S. Department of Transportation (DOT) hazardous materials regulations to prevent short circuits during transport.

Non-compliant shipments are subject to fines to cover additional labor costs. Repeat violations may result in further fees.

Damaged Batteries

Dynamic Lifecycle Innovations does not accept damaged, defective, or recalled batteries. These materials are considered hazardous waste and present an increased risk of fire, leakage, and regulatory non-compliance.

Batteries that are damaged, leaking, swollen, crushed, punctured, or otherwise compromised must not be shipped to Dynamic Lifecycle Innovations.

Any of the following:

- Damaged
- Defective
- Recalled

**HAZARDOUS
WASTE**

ACCUMULATION
START DATE _____

CONTENTS _____

HANDLE WITH CARE!

CONTAINS HAZARDOUS OR TOXIC WASTE



BATTERY PACKAGING GUIDELINES

Battery Containing Devices

Handling Requirements:

- Cover all exposed terminals with clear tape. If batteries are fully encased or covered, taping is not necessary.



Common in:

- Laptops
- Smart phones
- Tablets
- Digital cameras
- MP3 players
- Wireless controllers
- Key fobs
- Smart watches

All Other Battery Types

Handling Requirements:

- If you encounter a battery type not listed in this guide, please contact your Dynamic Sales Executive for more information.

Common Examples:

- Absolyte
- Various Lithium Irons
- EV Batteries
- Etc.



Dynamic Lifecycle Innovations does not return improperly packaged material and does not provide sorting or taping services.

All batteries must be taped and sorted before shipment, as required under U.S. Department of Transportation (DOT) hazardous materials regulations to prevent short circuits during transport.

Non-compliant shipments are subject to fines to cover additional labor costs. Repeat violations may result in further fees.