

BATTERY SHIPPING GUIDELINES



Batteries are generally non-regulated when transported Over-the-Road (OTR) but are regulated when shipped Over-the-Water (OTW).

SPECIAL HANDLING CONSIDERATIONS

Improper battery handling can lead to:

- Fires or explosions, especially if batteries are damaged or short-circuited.
- Injuries to handlers or responders from fires or explosions.
- Cargo damage that can spread during transit.
- Emergency landings or diversions if a fire occurs mid-transport.

Violating battery shipping regulations can result in fines or the loss of shipping privileges.

BATTERY HAZARD CLASSIFICATION

Lithium batteries: Classified as Class 9 dangerous goods.

Other batteries: May fall under different hazard classes.

When shipping batteries, you are subjected to regulations on packaging, labelling, quantity limits, training, and reporting.

SAFETY BEST PRACTICES FOR SHIPPING BATTERIES

It's necessary to adhere to several key safety practices for safely shipping batteries.

- ✓ Check the battery's Watt-hour rating and State of Charge (SOC) to prevent risks.
- ✓ Air transport regulations require the SOC to be below 30%.
- ✓ Train employees on battery handling, and enforce no-smoking policies.
- ✓ Have an emergency response plan that includes fire suppression measures.

TRANSPORT MODES AND REGULATIONS

Shipping batteries by air, sea, road, or rail requires specific guidelines:



AIR

[IATA Dangerous Goods Regulation](#) and the [IATA Lithium Battery Shipping Regulations \(LBSR\)](#)



OCEAN

[The International Maritime Dangerous Goods \(IMDG\) Code](#)



ROAD

[The Agreement concerning the International Carriage of Dangerous Goods by Road \(ADR\)](#)



RAIL

[Regulation concerning the International Carriage of Dangerous Goods by Rail \(RID\)](#)

REGULATIONS ON BATTERY SHIPPING

Battery shipments are subject to packaging, labeling, quantity limits, training, and reporting regulations.





DOCUMENTATION AND REGULATIONS FOR BATTERY SHIPPING

Several documents are required for shipping batteries internationally. These include:

DANGEROUS GOODS DECLARATION (DGD)

This document details the shipment, including the UN number, shipping name, hazard class, packaging group, and quantity. Required for all battery types.

EMERGENCY RESPONSE INFORMATION

This guides carriers on handling the batteries in case of damage, leak, fire, etc. Required for all battery types.

MATERIAL SAFETY DATA SHEET (MSDS)

Contains comprehensive product information, hazards, and handling guidelines on how to ship batteries. Required for all battery types.

TRANSPORT DOCUMENT

For lithium battery shipments, this specifies the UN number, shipping name, hazard class, packing group, and total quantity.

PILOT NOTIFICATION

For shipping lithium batteries by air, pilots must receive written information on the presence and location of lithium batteries.

PACKAGING CERTIFICATIONS

Documentation verifying that packaging meets regulatory performance standards.

BATTERY TEST SUMMARY

For defective or damaged lithium batteries, it is required to show that they have been tested and meet transport requirements.

EXEMPTION APPROVALS

If an exemption to dangerous goods regulations has been granted, the associated approval documentation is mandatory.

PREPARING AND PACKAGING BATTERIES

Follow the manufacturer's guidelines for safe packaging:

- ✓ Use inner packaging to prevent short circuits, such as fiberboard boxes.
- ✓ Place inner packaging inside strong outer packaging for protection.
- ✓ Lithium batteries need both inner and outer packaging with cushioning.
- ✓ Ensure packaging is sealed and damage-free to contain spills if they occur.
- ✓ Batteries must be upright and kept away from heat sources.

LABELING GUIDELINES

- ✓ Include the UN number, proper shipping name (e.g., UN 3480 for lithium-ion), and hazard labels on the outer box.
- ✓ Use laminated labels to prevent damage from moisture.
- ✓ Avoid placing labels on detachable packaging parts.

Note: Labeling and packaging vary depending on whether batteries are shipped alone, with, or inside equipment.

