

Lithium Battery Guide for Shippers: Pipeline and Hazardous Materials Safety Administration Compliance Tool for All Modes of Transportation



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The United States Pipeline and Hazardous Materials Safety Administration (“PHMSA”) issued an October 2024 document titled:

LITHIUM BATTERY GUIDE FOR SHIPPERS: A Compliance Tool for All Modes of Transportation (“Guide”).

PHMSA states that the Guide was prepared to assist shippers safely package lithium cells and batteries for transport by all modes according to the latest regulatory requirements.

The publication is described as directing its readers to:

...scenario-based situations that outline the applicable requirements that a shipper must follow to ship packages of lithium cells and batteries in various configurations.

The Guide addresses various shipping scenarios and refers to the regulatory requirements for a specific lithium cell/battery type, configuration, or size.

The Guide is based on the federal Hazardous Materials Regulations (“HMR”) found at 49 C.F.R. Parts 171-180. The HMR includes provisions for the classification, packaging, hazardous communication, stowage, and handling of all hazardous materials.

Scenarios include:

- UN3480 LITHIUM ION BATTERIES (FULLY REGULATED CELLS AND BATTERIES).
- UN3480 LITHIUM ION BATTERIES (SMALLER CELLS AND BATTERIES).
- UN3481 LITHIUM ION BATTERIES PACKED WITH OR CONTAINED IN EQUIPMENT (FULLY REGULATED CELLS AND BATTERIES).
- UN3481 LITHIUM ION BATTERIES PACKED WITH OR CONTAINED IN EQUIPMENT (SMALLER CELLS AND BATTERIES).
- UN3090 LITHIUM METAL BATTERIES (FULLY REGULATED CELLS AND BATTERIES).
- UN3090 LITHIUM METAL BATTERIES (SMALLER CELLS AND BATTERIES).
- UN3091 LITHIUM METAL BATTERIES PACKED WITH OR CONTAINED IN EQUIPMENT (FULLY REGULATED CELLS AND BATTERIES).
- UN3091 LITHIUM METAL BATTERIES PACKED WITH OR CONTAINED IN EQUIPMENT (SMALLER CELLS AND BATTERIES).
- UN3171 BATTERY-POWERED VEHICLE.

- UN3536 CARGO TRANSPORT UNITS.

A copy of the Guide can be downloaded [here](#).