

Shipping End-Of-Life Lithium Batteries for Recycling/Disposal DOT Special Permit 21139

“High Energy” Lithium Ion and Lithium Metal Batteries

This guide is applicable only to lithium cells and batteries above the energy content threshold listed below:

- Lithium ion cells > 60 Wh
- Lithium ion batteries > 300 Wh
- Lithium metal cells > 5.0 g lithium content
- Lithium metal batteries > 25.0 g lithium content

If your lithium battery(ies) is below these limits, please view the applicable guide for “low energy” batteries

For high energy DDR lithium battery shipments per DOT SP 21139, the following applies:

- Cells/batteries must be secured and protected against short circuit
- If cells/batteries are contained in equipment, unintentional activation must be prevented
- Cells/batteries must be placed in KULR TRS bag
- The KULR TRS bag must then be placed in a strong outer fiberboard box (UN 4G box not required)
- Aggregate energy content in a single package cannot exceed 2.1 kWh or equivalent lithium content
- Package must be closed per provided closure instructions
- Ensure that the outer fiberboard package has the following marks/labels:
 - “DOT SP 21139”
 - Package must display the Class 9 lithium battery label and UN No. and Proper Shipping Name
 - If standalone lithium ion cells/batteries: Use **UN3480, LITHIUM ION BATTERIES**
 - If standalone lithium metal cells/batteries: Use **UN3090, LITHIUM METAL BATTERIES**
 - If lithium ion cells/batteries packed with or contained in equipment: Use **UN3481, LITHIUM ION BATTERIES PACKED WITH EQUIPMENT** or **UN3481, LITHIUM ION BATTERIES CONTAINED IN EQUIPMENT**
 - If lithium metal cells/batteries packed with our contained in equipment: Use **UN3091, LITHIUM METAL BATTERIES PACKED WITH EQUIPMENT** or **UN3091, LITHIUM METAL BATTERIES CONTAINED IN EQUIPMENT**
- A bill of lading (BOL) associated with the shipment must include, “Lithium batteries intended for recycling in accordance with DOT SP21139”

When following these rules, regulated shipping papers and employee training are not required.



Lithium ion batteries (UN3480) example