

LITHIUM BATTERIES

Road & Rail Transport

Fact Sheet

The transport of Lithium Batteries is regulated due to the inherent risk of overheating and ignition in certain conditions.

Here's what you need to know if you're sending Lithium Batteries by road or rail.

Regulations

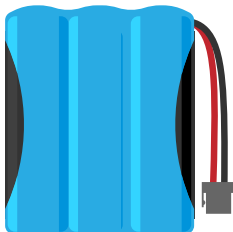
The surface transport of Lithium Batteries is regulated by the Australian Dangerous Goods Code Edition 7.8 (<https://www.ntc.gov.au/codes-and-guidelines/australian-dangerous-goods-code>) (ADG 7.8).

A complete copy of the Code is available on the National Transport Commission website at www.ntc.gov.au.

Lithium Battery Classification & Transport Requirements

The term Lithium Battery refers to a family of batteries with different chemistries, comprising many types of anodes and cathodes.

Each classification of Lithium Battery has different requirements and you should make sure you adhere to the regulations for transporting specific battery types as outlined below.



Lithium-Ion Batteries

Lithium-ion batteries are a rechargeable (secondary) battery, where the lithium is present in an ionic form in the electrolyte.

Lithium polymer batteries are also included in this category.

They're commonly used to power devices like mobile phones, laptops, tablets, power tools and e-bikes



Lithium Metal Batteries

Lithium metal batteries are generally non-rechargeable (primary) batteries that have lithium metal or lithium compounds as anode.

Lithium alloy batteries are also included in this category.

They're commonly used to power devices such as watches, calculators, cameras and data loggers.

Specifications for Packaging Lithium Batteries.

UN Certified Packaging

1. UN certified packaging must be used. This is packaging that has been designed and certified in accordance with the regulations. It must show the UN specification markings.



For Dangerous Goods packaging and labels, visit www.hazpak.com.au



Special Provision 188 (Cell Batteries)

2. ADG 7.5 Special Provision 188 (SP 188) requires that:

- Loose cells and batteries must be packed in inner packaging that completely enclose them. The cells and batteries must be protected to prevent short circuits.

The inner packaging must be packed in strong packaging that is able to withstand the shocks and loadings that occur during transport and trans-shipment.

Packages must be capable of withstanding 1.2 m of drop test without damage to the content.

- Cells and batteries installed in equipment or packed with equipment must be protected from damage, short-circuit and accidental activation.
- Lithium-ion batteries must be marked with the Watt-hour rating on the outside of the battery case (See Diagram 2).

Please refer to ADG 7.5 for more detailed information on SP 188.

Fully Regulated Lithium Cells & Batteries

3. Packing Instructions PI 903 and LP 903 (Large Packaging) apply to 'fully regulated' lithium cells and batteries including those contained or packed with equipment.

Damaged & Defective Batteries

4. PI 908 or LP 904 apply to damaged and defective lithium cells & batteries, including those contained in equipment. Refer also to SP 376.

Batteries for Disposal & Recycling

5. PI 909 applies to lithium batteries transported for disposal or recycling. Refer also to SP 377.

Exemptions

Packages containing button cells batteries installed in equipment (including circuit boards) and packages containing up to four cells or two batteries in equipment where there are not more than two packages in the consignment, are exempt from the regulations.

The power rating must be $\leq 20\text{Wh}$ per cell, $\leq 100\text{Wh}$ per battery, lithium content $\leq 1\text{g}$ per cell or $\leq 2\text{g}$ per battery

Disclaimer

The information shown above is a brief summary of the regulations pertaining to lithium batteries.

Please ensure Reference must be made to the full information contained in ADG 7.8.

Do my team need training for shipping Lithium Batteries?

Yes. Your team should complete Dangerous Goods training prior to packaging and shipping any Dangerous Goods including Lithium Batteries.

Please visit www.dgtrainer.com.au for Dangerous Goods Training.



Have questions about shipping Dangerous Goods?

Consigning Dangerous Goods correctly is critical for a safe supply chain. There are a number of regulations your team must adhere to.

If you're in doubt or want to confirm something about a Dangerous Goods shipment, please get in touch with the Freight People team. We have Dangerous Goods partners that can assist with more specific advice as required.

1800 621 036

www.freightpeople.com.au