

IATA Shipping Instructions for Air Transportation **UN3481, LITHIUM ION BATTERIES PACKED WITH EQUIPMENT, 9** (PI 966, Section II → Small cells & batteries)

ONLY TRAINED HAZMAT EMPLOYEES MAY SHIP LITHIUM BATTERIES USING THIS GUIDE.

Some batteries are regulated when shipped or offered for transportation. If the battery is restricted, then all applicable hazardous materials regulations must be met. This guide provides information to assist you in how to ship the battery by air.



How can I tell if the battery is regulated?

Batteries normally have the size listed directly on the battery case which will help you identify whether or not it can be shipped without special packaging and package marking; in other words, shipped as non-restricted in transportation.



These instructions have been specifically prepared for the shipment of **small lithium ion batteries packed with equipment** (Watt-hour rating ≤ 100 Wh) in conformity with the requirements of the IATA Dangerous Goods Regulations, Edition 67 (01/01/2026).

DO NOT USE THESE SHIPPING INSTRUCTIONS FOR OTHER BATTERY TYPES.

All employees are responsible for compliance with applicable domestic and international dangerous goods transport regulations. All employees must be dangerous goods trained prior to using this shipping template. All information in this shipping template is accurate through the date of revision and must be validated against the regulations yearly and updated as regulations change.



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(PI 966, Section II)**

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DESCRIPTION

Items

(Identify and insert the description of items that may be shipped utilizing this template in this section.)

SHIPPING BY AIR (ICAO/IATA)

Shipping Location

Transport by Passenger or Cargo Aircraft

Shipping Company

(Identify in this section the carriers used and carrier requirements)

(e.g., Airlines such as American, Delta or United for Passenger Aircraft or FedEx Express for (CAO) Cargo Aircraft Only)

State and Operator Variations (2.8)

Some States and/or Operators may file variations. Always check the State and Operator variations in Section 2.8 of IATA for any additional requirements or restrictions.

NOTE

Damaged, defective, or recalled cells or batteries, that have the potential of producing a dangerous evolution of heat, fire, or short circuit (including those being returned to the manufacturer for safety reasons) are forbidden for transport by air unless approved by the relevant Competent Authorities.

Waste batteries and those being shipped for recycling or disposal are forbidden for transport by air unless approved by the relevant Competent Authorities.

Every lithium cell and battery must meet the provisions of 3.9.2.6, as well as the general and additional requirements in the applicable packing instruction.

CLASSIFICATION

UN Number & Proper Shipping Name

UN3481, LITHIUM ION BATTERIES PACKED WITH EQUIPMENT

Battery Testing Data

LITHIUM ION CELLS OR BATTERIES MUST MEET THE REQUIREMENTS OF EACH TEST IN THE *UN Manual of Tests and Criteria, Part III, Subsection 38.3*.

Battery Test Summary

A battery test summary complying with the requirements of the UN Manual of Tests and Criteria, Part III, Subsection 38.3, Paragraph 38.3.3.5 is required to prove all cells/batteries have been properly tested.

The battery test summary is not a transport document and is not required to be provided as a transport document. However, some carriers may request a copy be provided.

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CLASSIFICATION

Site Testing Data	<i>(Insert the location of battery testing documentation and /or attached to the shipping instructions)</i>
Special Provisions	A88, A99, A154, A181, A185, A213, A802

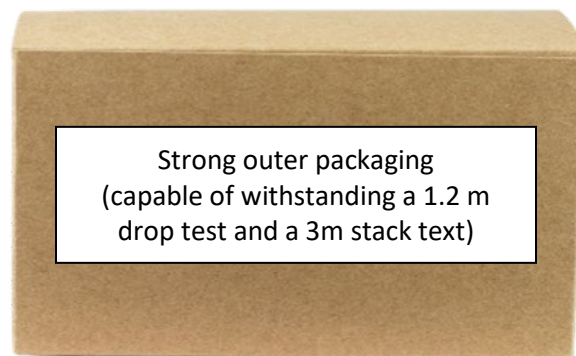
PACKAGING

Packing Instruction	966, Section II
Watt-hour Rating (Section II)	Lithium ion cells ≤ 20 Wh Lithium ion batteries ≤ 100 Wh
Limit per package (Table 966-II)	Passenger Aircraft – 5 kg net quantity of lithium ion cells or batteries Cargo Aircraft Only – 5 kg net quantity of lithium ion cells or batteries Maximum number of batteries in each package must not exceed the minimum number required to power the equipment, plus 2 spares sets.
Short Circuit Prevention	<i>The site must identify and insert information on how this will be done for applicable shipments.</i> Protect cells and batteries against short circuits, including against contact with conductive materials within the same packaging (e.g., place a single battery in a plastic bag and then place in a package). THE CELLS OR BATTERIES MUST INCORPORATE A SAFETY VENTING DEVICE OR BE DESIGNED NOT TO RUPTURE UNDER NORMAL CONDITIONS OF TRANSPORT. Each battery containing cells or a series of cells connected in parallel must be equipped with an effective means, as necessary, to prevent dangerous reverse current flow (e.g., diodes, fuses).
State of Charge (SoC)	Lithium ion cells and batteries packed with equipment must be offered for transport at a state of charge not exceeding 30% of their rated design capacity. It is the responsibility of the shipper to ensure the SoC requirements are met when packing the batteries for transport. <i>Note: Guidance and methodology for determining the rated capacity can be found in the UN Manual of Test and Criteria (Rev.8), Section 38.3.2.3.</i>

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PACKAGING

<p>Combination Packaging</p>	<p>LITHIUM CELLS AND BATTERIES MUST BE PACKED IN STRONG OUTER PACKAGING.</p> <p>Each lithium cell and battery must be placed in a non-metallic inner packaging that completely encloses it and separates it from contact with equipment, other devices or conductive materials in the outer packaging before being packed in a strong outer packaging with the equipment.</p> <p>The inner packagings must be packed with the equipment in a strong outer packaging conforming to 5.0.2.4, 5.0.2.6.1 and 5.0.2.12.1, such as drums, jerricans, and boxes (note that a UN specification packaging is not required).</p> <p>The equipment must be secured against movement within the outer packaging.</p>
<p>Additional Packaging Requirements</p>	<p>The package must also be capable of withstanding a 1.2 m drop test in any orientation without damage to the cells or batteries it contains, shifting of the contents so as to allow battery to battery contact, or release of contents. It must also be capable of withstanding a 3 m stack test.</p>
<p>Type of Packaging</p>	<p><i>(Insert the type of packagings to be used. In addition, insert closure instructions or the location of the closure instructions to be used.)</i></p>





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MARKING / LABELLING

Marking & Labelling

Display a shipping label with the name and address of shipper and consignee. Mark the package with the battery mark. If not already displayed, add [UN3481](#).

Note: A telephone number may remain on the mark through December 31, 2026, but is no longer required.



Example of completed package for transportation by air on PASSENGER AIRCRAFT:



DOCUMENTATION

Document Type

A Shipper's Declaration for Dangerous Goods is **NOT** required.

Alternative Document Requirements

The words **“lithium ion batteries in compliance with Section II of PI 966”** must be placed on the air waybill when an air waybill is used.

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Example of Air Waybill - PASSENGER AIRCRAFT:

Airport of Destination		Requested Flight/Date		Amount of Insurance		INSURANCE - If carrier offers insurance, and such insurance is requested in accordance with the conditions thereof, indicate amount to be insured in figures in box marked "Amount of Insurance".	
Handling Information							SCI
No. of Pieces RCP	Gross Weight	kg lb	Rate Class	Chargeable Weight	Rate / Charge	Total	Nature and Quantity of Goods (incl. Dimensions of Volume)
			Commodity Item No.				
							Lithium ion batteries in compliance with Section II of PI 966

TRAINING REQUIREMENTS

Training Requirements

Employees must be informed of the requirements of this shipping guide before offering small lithium batteries for transport.

It is recommended that employees receive hazardous material general awareness training as well prior to preparing and offering lithium batteries for transport.

STORAGE

Storage Location & Special Considerations

(Insert storage requirements or special considerations.)

REFERENCES

IATA Dangerous Goods Regulations (DGR)	Edition 67 (Effective 1 January - 31 December 2026)
Section 1	1.5 – Training Requirements
Section 3	3.9.2.6 – Lithium Batteries
Section 5	5.9 – Packing Instructions – Class 9, Miscellaneous Dangerous Goods (PI 966, Section II)
Section 6	6.3 – UN Packaging Performance Tests
Section 7	Marking and Labelling
Section 8	Documentation

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