

IATA Shipping Instructions for Air Transportation **UN3481, LITHIUM ION BATTERIES PACKED WITH EQUIPMENT, 9** (PI 966, Section I → Fully regulated 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 **fully regulated lithium ion batteries packed with equipment** (Watt-hour rating > 100 Wh) in conformity with the requirements of the IATA Dangerous Goods Regulations, Edition 67 (*effective 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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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 attach to the shipping instructions)</i>
Special Provisions	A88, A99, A154, A181, A185, A213, A802

PACKAGING

Packing Instruction	966, Section I
Watt-hour Rating (Section I)	Lithium ion cells > 20 Wh Lithium ion batteries > 100 Wh
Limit per package (Table 966-I)	Passenger Aircraft – 5 kg of lithium ion cells or batteries Cargo Aircraft Only – 35 kg 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 spare 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 (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 THE 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

Combination Packaging

LITHIUM CELLS AND BATTERIES MUST BE PACKED IN COMBINATION PACKAGING.

Each lithium cell and battery must be placed in a non-metallic inner packaging that completely encloses it and separates them from contact with equipment, other devices or conductive materials in the outer packaging. Cells and batteries must be packaged in a manner to prevent short circuits, movement within the outer package, and accidental activation of the equipment.

The inner packagings must be packed:

- in a PG II outer packaging, then placed with the equipment in a strong, rigid outer packaging, or
- with the equipment in a PG II outer packaging.

Sample UN Spec Mark for PG II Fibreboard Box



4G/Y35/S/26
USA/+AB1234

Packaging must meet PG II performance standard as indicated by “Y” (or a PG I performance standard as indicated by “X”) in the UN specification marking.

Type of Packaging

(Insert the type of packagings to be used. In addition, insert closure instructions or the location of the closure instructions to be used.)



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MARKING / LABELLING

Marking

Display a shipping label with name and address of shipper and consignee, and mark the box with UN number, proper shipping name (PSN) and net weight:

UN3481, LITHIUM ION BATTERIES PACKED WITH EQUIPMENT

Labelling

Display the Class 9 Battery label.



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



DOCUMENTATION

Document Type

A Shipper's Declaration for Dangerous Goods is required with specific information (see 8.1 of the IATA DGR for more information).

DG Identification

UN3481, LITHIUM ION BATTERIES PACKED WITH EQUIPMENT, 9

Quantity and Type of Packaging

Indicate the number of packages and type of packaging and the amount per package. *The quantity is required to show net quantity not gross weight.*

Packing Instruction

The packing instruction used to prepare the shipment must be included.

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**DOCUMENTATION – SHIPPER’S DECLARATION FOR DANGEROUS GOODS
PASSENGER AIRCRAFT**

SHIPPER’S DECLARATION FOR DANGEROUS GOODS

Shipper Full name and address of shipper		Air Waybill No Page 1 of 1 Pages Shipper’s Reference Numbers <i>(optional)</i>	
Consignee Full name and address of Consignee			
<i>Two completed and signed copies of this Declaration must be handed to the operator</i>		WARNING Failure to comply in all respects with the applicable Dangerous Goods regulations may be in breach of the Applicable law, subject to legal penalties.	
TRANSPORT DETAILS			
This shipment is within the limitations prescribed for <i>(delete non-applicable)</i>	Airport of Departure Departure Airport or City (no abbreviations)		
PASSENGER AND CARGO AIRCRAFT	CARGO AIRCRAFT ONLY	Shipment type <i>(delete non-applicable)</i> NON-RADIOACTIVE RADIOACTIVE	
Airport of Destination Destination Airport or City (no abbreviations)			
NATURE AND QUANTITY OF DANGEROUS GOODS			
Dangerous Goods Identification			
UN or ID No.	Proper Shipping Name	Class or Division (subsidiary hazard)	Packing Group
UN 3481	LITHIUM ION BATTERIES PACKED WITH EQUIPMENT	9	1 Fibreboard box x 5 kg each 5 kg total
			966
Additional Handling Information 24-hour Emergency Response Contact: 123-456-7890 (per USG-12)			
I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. I declare that all of the applicable air transport requirements have been met.		Name of Signatory Name Date Date Signature <i>(see warning above)</i> Signature	

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TRAINING REQUIREMENTS

Training Requirements

Hazmat employee training must include the following:

- *General familiarization training*
- *Function-specific training*
- *Safety training*
- *Security awareness*

Initial training: Hazmat employees must be trained prior to their performing any duties related to the transportation of dangerous goods by air.

Recurrent training: Hazmat employees must be provided with recurrent training within 24 months of previous training to ensure knowledge is current. Honeywell also requires recurrent training every two years.

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 I)

Section 6 6.3 – UN Packaging Performance Tests

Section 7 Marking and Labeling

Section 8 Documentation

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