

IATA Shipping Instructions for Air Transportation

UN3480, LITHIUM ION BATTERIES, 9 (PI 965, Section IB → Partially excepted, 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 **lithium ion batteries NOT contained in or NOT packed with equipment** (more than 2 batteries, each with a Watt-hour rating ≤ 100 Wh); effective January 1, 2022; 63rd Edition of IATA.

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. ©Honeywell



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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 Cargo Aircraft Only

NOTE: Shipments of lithium ion batteries are forbidden for transport aboard passenger aircraft.

Shipping Company:

(Identify in this section the carriers used and operator variances or additional requirements)

(i.e. Airlines such as FedEx Express, DHL or UPS for (CAO) Cargo Aircraft Only)

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

Cells and batteries must be protected so as to prevent short circuits. This includes protection against contact with electrically conductive materials within the same packaging that could lead to a short circuit.

CLASSIFICATION

UN Number & Proper Shipping Name

UN 3480, LITHIUM ION BATTERIES

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.*

Cells and Batteries must be manufactured under a quality management program.

Lithium Battery Test Summary

A 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. Test Summary is not a transport document and is not required to be provided as a transport document. However, carriers may request a copy be provided.



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CLASSIFICATION

Definitions	<p>Lithium Cells – “A single encased electrochemical unit (one negative and one positive electrode) which exhibits a voltage differential across its two terminals.”</p> <p>Lithium Battery – “two or more cells which are electrically connected together and fitted with devices necessary for use, for example: case, terminals, marking, and protective devices. A single cell lithium battery (i.e. in a cell phone) is considered a “cell” and must be tested according to the testing requirements for cells.”</p>
Site testing data:	<i>(Insert the location of battery testing documentation and /or attached to the shipping instructions)</i>
Special Provisions	A88, A99, A154, A164, A183, A201, A206, A213, A331, A334, A802

PACKAGING

Packing Instruction	965, Section IB, Regulated as Class 9
Section IB	Applies to lithium ion cells with a Watt-hour rating NOT exceeding 20 Wh and lithium ion batteries with a Watt-hour rating NOT exceeding 100 Wh, packed in quantities that exceed the allowance permitted in Section II, Table 965-II (more than 8 cells or 2 batteries); which must be assigned to Class 9 and are subject to all of the applicable requirements of the packing instruction 965.
Limit per package	Passenger Aircraft – FORBIDDEN Cargo Aircraft Only – 10 kg
Quantity and Type of Packaging	Strong outer packaging that conforms to 5.0.2.4, 5.0.2.6.1 and 5.0.2.12.1.
General Requirements	
Protect to prevent short circuits	<p><i>The site must identify and insert information on how this will be done for applicable shipments.</i></p> <p>(i.e. place a single battery in a plastic bag and then place in a package.)</p> <p>Cells and batteries must be protected so as to prevent short circuits. This includes protection against contact with electrically conductive materials within the same packaging that could lead to a short circuit.</p> <p>THE CELLS OR BATTERIES MUST INCORPORATE A SAFETY VENTING DEVICE OR BE DESIGNED NOT TO RUPTURE UNDER NORMAL CONDITIONS OF TRANSPORT.</p>

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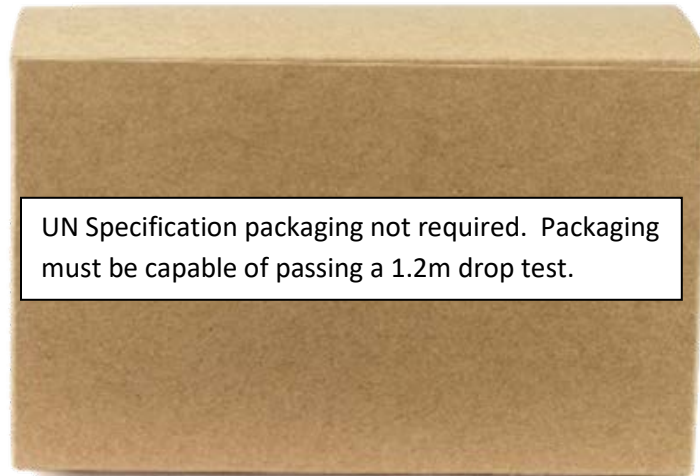
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PACKAGING

State of Charge (SoC)* *effective April 1, 2016	<p>Lithium ion cells and batteries must be offered for transport at a state of charge not exceeding 30% of their rated design capacity.</p> <p>It is the responsibility of the shipper to ensure the SoC requirements are met when packing the batteries for transport.</p> <p><i>Note: Guidance and methodology for determining the rated capacity can be found in the UN Manual of Test and Criteria, 7th rev. ed., Section 38.3.2.3.</i></p>
Inner Packaging	Lithium ion batteries must be placed in an INNER PACKAGING that completely encloses the battery then placed in a rigid outer packaging.
Watt-hour marking	Batteries manufactured after December 31, 2011 must be marked with the Watt-hour rating on the outside case.
Type of Packaging	<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>
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.
Outer Packaging	<p>The package must be a STRONG RIGID OUTER PACKAGING that conforms to 5.0.2.4, 5.0.2.6.1 and 5.0.2.12.1 (does not require UN specification packaging). Such examples include:</p> <ul style="list-style-type: none">(a) Drums(b) Jerricans(c) Boxes <p>Cells and batteries must not be packed in the same outer packaging with other dangerous goods.</p>
Additional Packaging Requirements	Each package must be capable of withstanding a 1.2m drop test in any orientation without damage to the cells or batteries contained within, shifting of the contents so as to allow battery to battery (or cell to cell) contact, or release of contents



MARKING / LABELLING

<p>MARKING</p>	<p>Mark with “UN 3480” and “LITHIUM ION BATTERIES”; The shipper and consignee full name and address; and The net weight when required by 7.1.4.1 (c)</p>
<p>LABELLING THE PACKAGE</p>	<p>Lithium Battery class 9 label, Lithium Battery Mark and the Cargo Aircraft Only Label.</p> <div style="display: flex; justify-content: space-around; align-items: center;">    </div>
<p>Lithium Battery Mark</p>	<p>Add “UN3480” if not already indicated and shipping site telephone number in the event of damage or leakage. The number to be included should be +1-571-766-3950.</p> <p>The UN number(s) indicated on the mark should be at least 12 mm high.</p>

Example of completed package for transport on CARGO AIRCRAFT ONLY:



DOCUMENTATION

Document Type	Cells or batteries shipped under the provisions of Section IB MUST be described on a Shipper's Declaration as set out in Section 8, and the air waybill, when used, must contain the applicable information required by 8.2.1 and 8.2.2
DG Identification	UN3480, LITHIUM ION BATTERIES, 9
Packing Instruction	The packing instruction number used to package the batteries.



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DOCUMENTATION – SHIPPERS DECLARATION FOR DANGEROUS GOODS CARGO AIRCRAFT ONLY

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					
Airport of Destination Destination Airport or City (no abbreviations)		Shipment type <i>(delete non-applicable)</i> NON-RADIOACTIVE RADIOACTIVE				
NATURE AND QUANTITY OF DANGEROUS GOODS						
Dangerous Goods Identification						
UN OR ID NO.	Proper Shipping Name	Class or Division (sub-risk)	Packing Group	Quantity and Type of Packing	Packing Inst.	Authorization
UN 3480	Lithium ion batteries	9		4 Fibreboard boxes x 10 kg each	965	IB
Additional Handling Information 24 hour emergency 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 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)

63rd Edition, Effective 1 January-31 December 2022

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 965, Section IB)

Section 6

6.3 – UN Packaging Performance Tests (not applicable to IB prepared packages other than 1.2 meters drop test)

Section 7

Marking and Labelling

Section 8

Documentation

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