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Lithium Battery Transport information Version 3 July 2015

Advisory Information in the Transport of Lithium Batteries

Please Note: Commercial shippers of Lithium Ion and or Lithium Metal batteries are required to be DG by Air trained under the IATA and Australian Civil Aviation Safety Authority (CASA) legislation.

Some Airlines now have a Ban on UN 3480 items being accepted for Passenger and Cargo Aircraft, Please see last page

All referenced through CASA and the Current IATA Dangerous Goods regulations 56th edition 2015

Packing Instruction 965	-	Lithium Ion Batteries (on their own)
Packing Instruction 966	-	Lithium Ion Batteries packed with equipment
Packing Instruction 967	-	Lithium Ion Batteries contained within equipment
Packing Instruction 968	-	Lithium Metal Batteries (on their own)
Packing Instruction 969	-	Lithium Metal Batteries packed with equipment
Packing Instructions 970	-	Lithium Metal Batteries contained in equipment



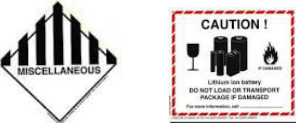

CASA = Civil Aviation Safety Authority
IATA = International Air Transport Association
P.I. or PI = Packing Instruction Number
G = Grams

Disclaimer: the intent of this document is not to replace the IATA or CASA regulations, merely to aid with the interpretation of the new 2104 Lithium Battery requirements. No reader should act on such information without reference to the applicable regulations. Every effort has been made to avoid any errors or omissions in this document and this is only to be used as a guide only. The sole reference sources are AITA and CASA. Toll will not be liable or held responsible for any loss, damage, or legal action due to omissions or errors.



Lithium ION Batteries on their own inside a package

Some Airlines now have a Ban on UN 3480 items being accepted for Passenger and Cargo Aircraft

P.I. = Packing Instruction



Lithium ION Batteries (rechargeable) UN 3480 – PI 965	Section 1 FULLY DECLARED DG	Section 1B Restricted	Section II Not subject to all aspects of the Regulations
Applicable to: Rechargeable Lithium ION Batteries on their own	 Batteries over 100 Watts per hour (W/h) Cells over 20W/h	Batteries no more than 100 W/h, but MORE THAN 2 batteries per package, Cells no more 20 W/h but MORE THAN 8 cells per package	Batteries no more than 100W/h and NO MORE THAN 2 batteries per package Cells no more than 20W/h and NO MORE THAN 8 cells per package Batteries and cells NO MORE THAN 2.7 W/h
Packaging and marking requirements for the outside of packages	UN Specification packaging Protection against short circuit or arcing UN Number – UN3480 Proper Shipping Name Lithium Ion Batteries	Strong outer Packaging (see PI) Protection against short circuit or arcing UN number – UN 3480 Proper Shipping Name Lithium Ion Batteries Gross weight only required if qty different in packages	Strong rigid outer packaging {see PI} Inner packaging's must completely enclose Cells/Batteries Protection against short circuit or arcing
Label required	 Class 9 Label	 Class 9 and Lithium Battery Label	 Lithium Battery Handling Label
Quantity Allowed	5 Kg net – Passenger Aircraft 35Kg net - Cargo Aircraft Only	Maximum gross weight (Batteries plus packing) = 10Kg per package on Passenger and Cargo Aircraft Only	Maximum net quantity (batteries 2.7W/h or less) = 25 Kg per package Maximum net quantity (cells under 20W/h batteries under 100W/h) = N/A
Shippers Declaration required	YES	YES (IB in P.I. column after number or authorisation column)	NO
Airwaybill/con note or Transport document statement requirements	Dangerous Goods as per attached Shippers Declaration	Dangerous Goods as per attached Shipper Declaration Emergency information document must accompany the consignment or include with the declaration	The words “Lithium Ion Batteries in compliance with Section II of PI 965” Emergency information document must accompany the consignment MSDS
Airline requirements	Restricted Lithium Ion Required on NOTOC Full Acceptance checklist must be completed prior to despatch	Restricted Lithium Ion Required on NOTOC Full Acceptance checklist must be completed prior to despatch	Exempt Lithium Ion Batteries Not required on the NOTOC No DG Checklist is required

Lithium ION Batteries packed with equipment inside a package

Lithium Ion Batteries packed with equipment UN 3481 – PI 966	Section I Fully declared DG	Section II Not subject to all aspects of the Regulations
Applicable to:	Batteries over 100 Watts per hour (W/h) Cells over 20 W/h	Batteries no more than 100W/h Cells no more than 20 W/h Note: The maximum number of batteries allowed in the package is the minimum number required to power the equipment plus 2 spare batteries
Packaging and marking requirements for the outside of packages	UN specification package Protection against short circuit or arcing UN Number – UN 3481 Proper Shipping Name:= Lithium Ion Batteries packed with equipment	Strong outer packaging (see PI for types of packages) Inner packaging's must completely enclose Battery/Cell Protection against short circuit or arcing
Label required	Class 9 label 	Lithium Battery Handling label 
Quantity Allowed	5Kg Net (batteries) – Passenger Aircraft 35Kg Net (batteries) – Cargo Aircraft Only	Maximum Net quantity (batteries within package) = 5Kg per package for passenger and cargo aircraft only
Shippers Declaration required	YES	NO
Airwaybill/con note or Transport document statement requirements	Dangerous Goods as per attached shippers declaration CAO (if applicable)	The words "Lithium Ion Batteries in compliance with section II of PI 966 Emergency information must accompany the consignment MSDS
Airline requirements	Restricted Lithium Ion Required on NOTOC Full Acceptance checklist must be completed prior to despatch	Exempt Lithium Ion Batteries Not required on the NOTOC No DG Checklist is required



Lithium ION Batteries contained in equipment inside a package

Lithium Ion Batteries contained in equipment UN 3481 – PI 967	Section I Fully declared DG	Section II Not subject to all aspects of the Regulations
Applicable to:	Batteries over 100 Watts per hour (W/h) Cells over 20 W/h	Batteries no more than 100W/h Cells no more than 20 W/h Note: The maximum number of batteries allowed in the package is the minimum number required to power the equipment plus 2 spare batteries
Packaging and marking requirements for the outside of packages	UN specification package Protection against short circuit or arching UN Number – UN 3481 Proper Shipping Name: Lithium Ion Batteries contained in equipment	Strong outer packaging (see PI for types of packages) Inner packaging's must completely enclose Battery/Cell Protection against short circuit or arching
Label required	Class 9 label 	Lithium Battery Handling label  Note: if the package contains no more than 4 Lithium Ion cells or 2 Lithium Ion Batteries installed in the equipment, button cell batteries or circuit boards, they do not require labelling or emergency information
Quantity Allowed	5Kg Net (batteries) – Passenger Aircraft 35Kg Net (batteries) – Cargo Aircraft Only	Maximum Net quantity (batteries within package) = 5Kg per package for passenger and cargo aircraft only
Shippers Declaration required	YES	NO
Airwaybill/con note or Transport document statement requirements	Dangerous Goods as per attached shippers declaration CAO (if applicable)	The words "Lithium Ion Batteries in compliance with section II of PI 966" Emergency information must accompany the consignment MSDS
Airline requirements	Restricted Lithium Ion Required on NOTOC Full Acceptance checklist must be completed prior to despatch	Exempt Lithium Ion Batteries Not required on the NOTOC No DG Checklist is required





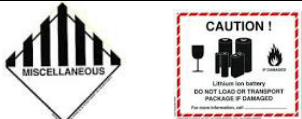

Inside a Laptop Battery



Inside a Battery Pack






Lithium METAL Batteries on their own inside a package

Lithium METAL Batteries (non rechargeable) UN 3090 – PI 968	Section 1 FULLY DECLARED DG	Section 1B Restricted	Section II Not subject to all aspects of the Regulations
<p>Applicable to:</p> 	<p>Batteries over 2 grams (g) of Lithium Metal</p> <p>Cells over 1 gram (g) of lithium Metal</p>	<p>Batteries no more than 2 grams(g) of Lithium, but more than 2 batteries per package</p> <p>Cells no more than 1 gram (g) of lithium, but more than 8 cells per package</p>	<p>Batteries >0.3g but<2g of Lithium content and no more than 2 per package</p> <p>Cells with no more than>0.3g no more than 1 g of Lithium content and no more than 8 per package</p> <p>AND</p> <p>Batteries and cells with no more than 0.3 g of lithium content</p>
<p>Packaging and marking requirements for the outside of packages</p>	<p>UN Specification package</p> <p>Protection against short circuit or arching</p> <p>UN Number – UN 3090</p> <p>Proper Shipping Name =Lithium Metal Batteries</p>	<p>Strong outer packaging (see PI for types)</p> <p>Protection against short circuit or arching</p> <p>UN Number – UN 3090</p> <p>Proper Shipping Name: Lithium Metal Batteries</p> <p>Gross weight only required if different quantity in packages</p>	<p>Strong outer packaging (see PI for types)</p> <p>Inner packaging's must completely enclose Battery/Cell</p> <p>Protection against short circuit or arching</p>
<p>Label required</p>	 Class 9 Label	 Class 9 and Lithium Battery Label	 Lithium Battery Handling Label
<p>Quantity Allowed</p>	<p>2.5Kgs Net – Passenger Aircraft</p> <p>35 Kgs Net – Cargo Aircraft Only</p>	<p>Maximum gross weight (batteries + packaging) = 2.5Kgs per package on Passenger and Cargo Aircraft Only</p>	<p>Maximum Net quantity (batteries 0.3g or less) = 2.5Kgs per package</p> <p>Maximum Net quantity (cells under 1 gram/batteries under 2g) = N/A (see applicable to)</p>
<p>Shippers Declaration required</p>	<p>YES</p>	<p>Yes (1B in PI column after number or in Authorisation column of the regulations)</p>	<p>NO</p>
<p>Airwaybill/con note or Transport document statement requirements</p>	<p>Dangerous Goods as per attached Shippers Declaration</p> <p>CAO if applicable</p>	<p>Dangerous Goods as per attached shippers declaration</p> <p>Emergency information document must accompany the consignment or be included with the Declaration</p>	<p>The words “Lithium Metal Batteries in compliance with Section II of PI 968”</p> <p>Emergency information document must accompany the consignment MSDS</p>
<p>Airline requirements</p>	<p>Dangerous Goods as per attached shippers declaration</p> <p>Full Acceptance checklist required</p> <p>Required on the NOTOC</p>	<p>Required on the NOTOC</p> <p>Full Acceptance checklist required</p>	<p>Exempt Lithium Metal Battery</p> <p>Not required on NOTOC</p> <p>No checklist required</p>





Lithium METAL Batteries packed with Equipment

Lithium METAL Batteries packed with equipment UN 3091 – PI 969	Section I Fully declared DG	Section II Not subject to all aspects of the Regulations
Applicable to: 	Batteries over 2 grams (g) of Lithium Metal Cells over 1 g of Lithium Metal	Batteries no more than 2 grams (g) of Lithium Metal Cells no more than 1 g of Lithium Metal Note: The maximum number of batteries allowed in the package is the minimum number required to power the equipment plus 2 spare batteries
Packaging and marking requirements for the outside of packages	UN specification package Protection against short circuit or arcing UN Number – UN 3091 Proper Shipping Name: Lithium Metal Batteries packed with equipment	Strong outer packaging (see PI for types of packages) Inner packaging's must completely enclose Battery/Cell Protection against short circuit or arcing
Label required	Class 9 label 	Lithium Battery Handling label 
Quantity Allowed	5Kg Net (batteries) – Passenger Aircraft 35Kg Net (batteries) – Cargo Aircraft Only	Maximum Net quantity (batteries within package) = 5Kg per package for passenger and cargo aircraft only
Shippers Declaration required	YES	NO
Airwaybill/con note or Transport document statement requirements	Dangerous Goods as per attached shippers declaration CAO (if applicable)	The words "Lithium Metal Batteries in compliance with section II of PI 969" Emergency information must accompany the consignment MSDS
Airline requirements	Restricted Lithium Ion Required on NOTOC Full Acceptance checklist must be completed prior to despatch	Exempt Lithium Metal Batteries Not required on the NOTOC No DG Checklist is required





Lithium METAL Batteries contained in Equipment

Lithium METAL Batteries contained in equipment UN 3091 – PI 970	Section I Fully declared DG	Section II Not subject to all aspects of the Regulations
Applicable to:	Batteries over 2 grams (g) of Lithium Metal Cells over 1 g of Lithium Metal	Batteries no more than 2 grams (g) of Lithium Metal Cells no more than 1 g of Lithium Metal Note: The maximum number of batteries allowed in the package is the minimum number required to power the equipment plus 2 spare batteries
Packaging and marking requirements for the outside of packages	UN specification package Protection against short circuit or arching UN Number – UN 3091 Proper Shipping Name: Lithium Metal Batteries contained in equipment	Strong outer packaging (see PI for types of packages) Inner packaging's must completely enclose Battery/Cell Protection against short circuit or arching
Label required	Class 9 label 	Lithium Battery Handling label  Note: if the package contains no more than 4 Lithium cells or 2 Lithium Batteries installed in the equipment, button cell batteries or circuit boards, they do not require labelling or emergency information
Quantity Allowed	5Kg Net (batteries) – Passenger Aircraft 35Kg Net (batteries) – Cargo Aircraft Only	Maximum Net quantity (batteries within package) = 5Kg per package for passenger and cargo aircraft only
Shippers Declaration required	YES	NO
Airwaybill/con note or Transport document statement requirements	Dangerous Goods as per attached shippers declaration CAO (if applicable)	The words "Lithium Metal Batteries in compliance with section II of PI 969" Emergency information must accompany the consignment MSDS
Airline requirements	Restricted Lithium Ion Required on NOTOC Full Acceptance checklist must be completed prior to despatch	Exempt Lithium Metal Batteries Not required on the NOTOC No DG Checklist is required





LITHIUM BATTERY RESTRICTIONS

The following restrictions apply to Lithium Batteries and must be strictly adhered to.

UN Number	Proper Shipping Name	Packing Instruction Number	Operator (Airline) Restriction		
UN 3480	Lithium Ion Batteries	PI 965	Virgin Australia	-	Fully Restricted
			Qantas	-	Fully Restricted
UN 3090	Lithium Metal Batteries	PI 968	Toll - 737 network	-	Fully Restricted
			Virgin Australia	-	Fully Restricted
			Qantas	-	Fully Restricted

The following UN Numbers and Packing Instructions are not affected by the above restrictions and may be transported as long as all the requirements of the current IATA Dangerous Goods Regulations are met.

- UN 3481 Packing Instructions 966 & 967
- UN 3091 Packing Instructions 969 & 970