

# LITHIUM ION BATTERIES

## Note:

- There are no Packing Groups for Lithium batteries in the 2016 IATA Manual. A Packing Group must not be listed on the shipper's declaration.
- FedEx Express will not accept any item with an A183 Special Provision, even with a Competent Authority approval. [FX-16]
- Lithium Batteries (Section IA/IB and Section II) must not be shipped in the same package with the following Hazard Classes/Divisions: 1.4, 2.1, 3, 4.1, 4.2, 4.3, 5.1, 5.2, 8, or 2.2 with a Cargo Aircraft Only label. This includes All Packed in One and Overpacks. [FX-07]

\*\* Check: [http://images.fedex.com/us/services/pdf/LithiumBatteries\\_Limitations.pdf](http://images.fedex.com/us/services/pdf/LithiumBatteries_Limitations.pdf)

## SECONDARY RECHARGEABLE Lithium Ion

### Lithium Ion Batteries UN3480, P.I. 965

#### Section IA

Acceptable to dangerous goods locations if UN3480 is not prohibited.\*\*  
Cells greater than 20Wh; and Batteries greater than 100Wh

- Shipper's Declaration required in net weight KG.
- UN specification packaging required (PGII standards)
- Class 9 label required (See Figure 1)
- Dangerous goods surcharge

**Limit per package:**  
PAX = 5kg  
CAO = 35kg

~ or ~

#### Section II

Acceptable to all locations where UN3480 is not prohibited.\*\*  
Cells equal to or less than 20Wh; and Batteries equal to or less than 100Wh

- No Shipper's Declaration
- Completed IATA Lithium Battery Label (See Figure 2)
- No Dangerous goods surcharge
- Alternate documentation needed

**Limit per package:**  
Equal to or less than 2.7Wh = 2.5kg; or Greater than 2.7Wh but equal to or less than 20Wh = 8 cells; or Greater than 2.7 but equal to or less than 100Wh = 2 batteries

#### Section IB

Acceptable to dangerous goods locations if UN3480 is not prohibited.\*\*  
Cells equal to or less than 20Wh; and Batteries equal to or less than 100Wh

- Shipper's Declaration required in net weight KG.
- Rigid outer packaging
- Class 9 label required (See Figure 1)
- Completed IATA Lithium Battery Label (See Figure 2)
- Dangerous goods surcharge
- Dangerous goods markings including net weight when required
- IB on Shippers Declaration after packing Instruction
- 4 new bullets of information required on the shipper's declaration or alternate documentation as per packing instructions.

**Limit per package:**  
PAX = 10kg  
CAO = 10kg



Figure 1



Figure 2 \*

### Lithium Ion Batteries packed with equipment UN3481, P.I. 966

#### Section I

Acceptable to dangerous goods locations Only  
Cells greater than 20Wh; and Batteries greater than 100Wh

- Shipper's Declaration required in net weight KG.
- UN specification packaging required (PGII standards)
- Class 9 label required (See Figure 1)
- Dangerous goods surcharge

**Limit per package:**  
PAX = 5kg  
CAO = 35kg

~ or ~

#### Section II

Acceptable to all locations.  
Cells equal to or less than 20Wh; and Batteries equal to or less than 100Wh

- No Shipper's Declaration
- Completed IATA Lithium Battery Label (See Figure 2)
- No Dangerous goods surcharge
- Alternate documentation needed

**Limit per package:**  
PAX = 5kg  
CAO = 5kg

### Lithium Ion Batteries contained in equipment UN3481, P.I. 967

#### Section I

Acceptable to dangerous goods locations Only.  
Cells greater than 20Wh; and Batteries greater than 100Wh

- Shipper's Declaration required in net weight KG.
- Class 9 label required (See Figure 1)
- Dangerous goods surcharge

**Limit per package:**  
PAX = 5kg  
CAO = 35kg

~ or ~

#### Section II

Acceptable to all locations.  
Cells equal to or less than 20Wh; and Batteries equal to or less than 100Wh

- No Shipper's Declaration
- Completed IATA Lithium Battery Label (See Figure 2) when More than 4 cells or 2 batteries per package
- No Dangerous goods surcharge
- Alternate documentation needed

**Limit per package:**  
PAX = 5kg  
CAO = 5kg

## DISCLAIMER:

This guide is based upon the 2016 "IATA Dangerous Goods Regulations" and provides a general overview of lithium battery shipping requirements. It does not provide complete shipping information. Consult the packing instruction and all applicable Special Provisions for the product being shipped.

These materials are provided as a courtesy, to be used as guidelines to assist properly trained shippers. These materials do not alter, satisfy, or influence any federal or state requirements. The contents of these materials are subject to change due to constant changes in government regulations. FedEx Express accepts no liability for loss or damage resulting from changes, errors, omissions, or misinterpretations of these materials.

# LITHIUM METAL BATTERIES

## PRIMARY NON-RECHARGEABLE Lithium Metal

Lithium Metal Batteries  
**UN3090, P.I. 968**

Lithium Metal Batteries  
packed with equipment  
**UN3091, P.I. 969**

Lithium Metal Batteries  
contained in equipment  
**UN3091, P.I. 970**

### Section IA

Acceptable to dangerous goods locations if UN3090 is not prohibited.\*\*  
Cells greater than 1g and Batteries greater than 2g

- Shipper's Declaration required in net weight KG.
- UN specification packaging required (PGII standards)
- Class 9 label required (See Figure 1)
- CAO label required
- Dangerous goods surcharge
- Shipper must be on Section I (IA/IB) preapproval list (FX-07)

#### Limit per package:

Must be on CAO = 35kg

### Section IB

Acceptable to dangerous goods locations if UN3090 is not prohibited.\*\*  
Cells equal to or less than 1g; and Batteries equal to or less than 2g

- Shipper's Declaration required in gross weight KG.
- Rigid outer packaging.
- Class 9 label required (See Figure 1)
- Completed IATA Lithium Battery Label (See Figure 3)
- Dangerous goods surcharge
- Shipper must be on Section I (IA/IB) preapproval list (FX-07)
- IB on Shipper's Declaration
- Dangerous goods markings including net weight when required.
- CAO label required
- 4 new bullets of information required on the shipper's declaration or alternate documentation as per packing instructions.

#### Limit per package:

Must be CAO = 2.5kg

### Section I

Acceptable to Dangerous goods locations Only.  
Cells greater than 1g; and Batteries greater than 2g

- Shipper's Declaration required in net weight KG.
- UN specification packaging required (PGII standards)
- Class 9 label required (See Figure 1)
- Dangerous goods surcharge

#### Limit per package:

PAX = 5kg  
CAO = 35kg

### Section I

Acceptable to dangerous goods locations Only.  
Cells greater than 1g; and Batteries greater than 2g

- Shipper's Declaration required in net weight KG.
- Class 9 label required (See Figure 1)
- Dangerous goods surcharge

#### Limit per package:

PAX = 5kg  
CAO = 35kg

~ or ~

~ or ~

~ or ~

### Section II

Acceptable to dangerous goods locations if UN3090 is not prohibited.\*\*  
Cells equal to or less than 1g; and Batteries equal to or less than 2g

- No Shipper's Declaration
- Completed IATA Lithium Battery Label AND FedEx Section II label (See Figures 3 and 4)
- No Dangerous goods surcharge
- Shipper must be on Section II preapproval list (FX-07)
- Alternate documentation needed

#### Limit per package:

Equal to or less than 0.3g = 2.5kg; or greater than 0.3g but equal to or less than 1g = 8 cells; or greater than 0.3g but equal to or less than 2g = 2 batteries



Figure 1



Figure 3\*

\* Shipper must complete phone number portion of label.



Figure 4

### Section II

Acceptable to all locations.  
Cells equal to or less than 1g; and Batteries equal to or less than 2g

- No Shipper's Declaration
- Completed IATA Lithium Battery Label (See Figure 3)
- No Dangerous goods surcharge
- Alternate documentation needed

#### Limit per package:

PAX = 5kg  
CAO = 5kg

### Section II

Acceptable to all locations.  
Cells equal to or less than 1g; and Batteries equal to or less than 2g

- No Shipper's Declaration
- Completed IATA Lithium Battery Label if more than 4 cells and 2 batteries per package (See Figure 3)
- No Dangerous goods surcharge
- Alternate documentation needed

#### Limit per package:

PAX = 5kg  
CAO = 5kg

If you have questions please contact the Dangerous Goods/Hazardous Materials Hotline at (800) GOFEDEx and press "81" or say dangerous goods.