LITHIUM ION BATTERIES

Note:
- 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]

Section IA
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 (PIIGI standards)
- Class 9 label required (See Figure 1)
- Dangeorus goods surcharge

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

~ or ~

Section IB
Acceptable to dangerous goods locations only. Cells equal to or less than 20Wh; and batteries equal to or less than 100Wh
- Shipper’s declaration required in gross weight KG G.
- Class 9 label required (See Figure 1)
- Dangeorus goods surcharge including gross weight
- IB on shipper’s declaration (FX-07)
- Dangeorus goods markings including gross weight

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

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 (PIIGI standards)
- Class 9 label required (See Figure 1)
- Dangeorus goods surcharge

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

SECONDARY RECHARGEABLE Lithium Ion

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

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

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

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

CAUTION!
Lithium ion batteries
DO NOT LOAD OR TRANSPORT PACKAGE IF DAMAGED
For more information, call 000.000.0000

* Shipper must complete phone number portion of label.

DISCLAIMER:
This guide is based upon the 2013 “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.

January 2013
This document is an uncontrolled, reference-only copy.
LITHIUM METAL BATTERIES

<table>
<thead>
<tr>
<th>Section IA</th>
<th>Acceptable to dangerous goods locations only. Cells greater than 1g and batteries greater than 2g</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Shipper’s declaration required in net weight KG.</td>
</tr>
<tr>
<td></td>
<td>UN specification packaging required (PGII standards)</td>
</tr>
<tr>
<td></td>
<td>Class 9 label required (See Figure 1)</td>
</tr>
<tr>
<td></td>
<td>CAO label required</td>
</tr>
<tr>
<td></td>
<td>Dangerous goods surcharge</td>
</tr>
<tr>
<td></td>
<td>Shipper must be on Section I (IA/IB) preapproval list (FX-07)</td>
</tr>
<tr>
<td>Limit per package:</td>
<td>Must be on CAO = 35kg (USG-02)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Section IB</th>
<th>Acceptable to dangerous goods locations only. Cells equal to or less than 1g; and batteries equal to or less than 2g</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Shipper’s declaration required in gross weight KG.</td>
</tr>
<tr>
<td></td>
<td>Class 9 label required (See Figure 1)</td>
</tr>
<tr>
<td></td>
<td>Completed IATA Lithium Battery Label (See Figure 3)</td>
</tr>
<tr>
<td></td>
<td>Dangerous goods surcharge</td>
</tr>
<tr>
<td></td>
<td>Shipper must be on Section I (IA/IB) preapproval list (FX-07)</td>
</tr>
<tr>
<td></td>
<td>CAO label required</td>
</tr>
<tr>
<td>Limit per package:</td>
<td>Must be CAO = 2.5kg G (USG-02)</td>
</tr>
</tbody>
</table>

<table>
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<tr>
<th>Section I</th>
<th>Acceptable to dangerous goods locations only. Cells greater than 1g; and batteries greater than 2g</th>
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<table>
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<tr>
<th>Primary Non-Rechargeable Lithium Metal</th>
</tr>
</thead>
</table>

<table>
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<tr>
<th>Lithium Metal Batteries UN3090, P.I. 968</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lithium Metal Batteries packed with equipment UN3091, P.I. 969</td>
</tr>
<tr>
<td>Lithium Metal Batteries contained in equipment UN3091, P.I. 970</td>
</tr>
</tbody>
</table>

**Note:** If you have questions please contact the Dangerous Goods/Hazardous Materials Hotline at 1.800.GoFedEx 1.800.463.3339 and press “81” or say dangerous goods.
Lithium Battery Handling Label

**Example**

- **Write the Type of Battery**
  - For rechargeable lithium batteries, write "Lithium ion battery".
  - For non-rechargeable lithium batteries, write "Lithium metal battery".
  - For packages containing both types of batteries, write "Lithium ion and Lithium metal batteries".

- **Write a Telephone Number**
  - Where you can be contacted in the event there is a problem with the shipment.

**Minimum size**: 120 X 110mm
- When a package’s dimensions are such that it can only bear smaller labels, the label dimensions may be 105mm X 74mm.

**Color**: The border of the label must have red diagonal hatchings with text and symbols in black on a contrasting background.

← This label can be printed in color, completed as shown in the example below, and affixed to the package.
**Document Template**

Reference Number (optional): ______________________

**WARNING:** LITHIUM BATTERIES THAT HAVE BEEN RECALLED BY THE MANUFACTURER FOR SAFETY REASONS MUST NOT BE SHIPPED BY AIR.

**Terminology:**
- **Cell** – electrochemical unit, consisting of an anode and a cathode, capable of generating electrical current
- **Battery** – assembly of cells
- **Lithium ion cells/batteries** – rechargeable – includes lithium polymer cells/batteries
- **Lithium metal cells/batteries** – generally non-rechargeable

This package contains lithium cells or batteries in the following configuration (check applicable):

<table>
<thead>
<tr>
<th>Lithium Ion - Maximum of</th>
<th>Lithium Metal – Maximum of</th>
</tr>
</thead>
<tbody>
<tr>
<td>20 Watt-hours per cell; and</td>
<td>1 gram of lithium metal per cell; and</td>
</tr>
<tr>
<td>100 Watt-hours per battery</td>
<td>2 grams of lithium per battery</td>
</tr>
<tr>
<td><strong>Cells or batteries only (ICAO/IATA Packing Instruction 965, Section II)</strong> – Cells or batteries in a package, without electronic equipment</td>
<td><strong>Cells or batteries only (ICAO/IATA Packing Instruction 968, Section II)</strong> – Cells or batteries in a package, without electronic equipment</td>
</tr>
<tr>
<td><strong>Package Limit:</strong></td>
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</tr>
<tr>
<td>≤2.7 Wh = 2.5 kg; or</td>
<td>≤0.3 g = 2.5 kg; or</td>
</tr>
<tr>
<td>&gt;2.7 Wh but ≤ 20 Wh = 8 cells; or</td>
<td>&gt;0.3 g but ≤ 1 g = 8 cells; or</td>
</tr>
<tr>
<td>&gt;2.7 Wh but ≤ 100 Wh = 2 batteries</td>
<td>&gt;0.3 g but ≤ 2 g = 2 batteries</td>
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</tr>
<tr>
<td><strong>Packed with equipment (ICAO/IATA Packing Instruction 966, Section II)</strong> – Cells or batteries contained in a package with associated electronic equipment</td>
<td><strong>Packed with equipment (ICAO/IATA Packing Instruction 969, Section II)</strong> – Cells or batteries contained in a package with associated battery-powered equipment – with the batteries not installed in the equipment</td>
</tr>
<tr>
<td><strong>Contained in equipment (ICAO/IATA Packing Instruction 967, Section II)</strong> – Cells or batteries installed in equipment</td>
<td><strong>Contained in equipment (ICAO/IATA Packing Instruction 970, Section II)</strong> – Cells or batteries installed in equipment</td>
</tr>
</tbody>
</table>

- This package must be handled with care. A flammability hazard exists if the package is damaged.
- If this package is damaged in transportation, it must not be loaded until the condition of the contents can be verified. The batteries contained in this package must be inspected for damage and may only be repacked if they are intact and protected against short circuits.
- For more information about the batteries contained in this package, call the following telephone number:

**List telephone number here, including area code and any applicable country code**

**Name/Address of shipper:**

_______________________________________________________________________

_______________________________________________________________________

_______________________________________________________________________

Signed: ________________________________ Date: _______________________

04/10/2012
**Document Template**

Reference Number (optional): **1256-3478-9018**

**WARNING:** LITHIUM BATTERIES THAT HAVE BEEN RECALLED BY THE MANUFACTURER FOR SAFETY REASONS MUST NOT BE SHIPPED BY AIR.

**Terminology:**
- Cell – electrochemical unit, consisting of an anode and a cathode, capable of generating electrical current
- Battery – assembly of cells
- Lithium ion cells/batteries – rechargeable – includes lithium polymer cells/batteries
- Lithium metal cells/batteries – generally non-rechargeable

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</tr>
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<td>100 Watt-hours per battery</td>
<td>2 grams of lithium per battery</td>
</tr>
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</table>

- **☐ Cells or batteries only (ICAO/IATA Packing Instruction 965, Section II) – Cells or batteries in a package, without electronic equipment**
  - **Package Limit:** ≤2.7 Wh = 2.5 kg; or >2.7 Wh but ≤20 Wh = 8 cells; or >2.7 Wh but ≤100 Wh = 2 batteries

- **☐ Cells or batteries only (ICAO/IATA Packing Instruction 965, Section IB) – Cells or batteries in a package, without electronic equipment**
  - **Package Limit:** ≤0.3 g = 2.5 kg; or >0.3 g but ≤1 g = 8 cells; or >0.3 g but ≤2 g = 2 batteries

- **☐ Packed with equipment (ICAO/IATA Packing Instruction 966, Section II) – Cells or batteries contained in a package with associated electronic equipment**
  - **Package Limit:**
    - ≤0.3 g = 2.5 kg; or
    - >0.3 g but ≤1 g = 8 cells; or
    - >0.3 g but ≤2 g = 2 batteries

- **☑ Contained in equipment (ICAO/IATA Packing Instruction 967, Section II) – Cells or batteries installed in equipment**
  - This package must be handled with care. A flammability hazard exists if the package is damaged.
  - If this package is damaged in transportation, it must not be loaded until the condition of the contents can be verified. The batteries contained in this package must be inspected for damage and may only be repacked if they are intact and protected against short circuits.
  - For more information about the batteries contained in this package, call the following telephone number:

  **+81-3-9876-5432**

- **☐ Packed in the Same Box**

- **☐ Installed in Equipment**

**Write contact telephone number for further information**

**List telephone number here, including area code and any applicable country code**

**Name/Address of shipper:**

**Taro Yamada**  
**Export International Co., ltd**  
**100-100 Marunouchi 1-chome Chiyoda-ku Tokyo Japan 1000005**

**Signed:** **Taro Yamada**  
**Date:** **Jan 10, 2013**

**Sign and date the form**
Lithium Metal Batteries UN 3090 Section II

How to obtain preapproval and exception labels

Shippers must be preapproved by FedEx Express Dangerous Goods Administration and purchase special Section II Exception Labels in order to ship primary lithium batteries.

Obtain Preapproval

Shippers must submit the following information to be considered by FedEx Express Dangerous Goods Administration for approval to ship primary lithium batteries.

1. FedEx account number
2. Company name(s) and complete address (include country for orders outside the U.S.)
3. Contact name and phone number (in case of questions related to the preapproval)
4. Type of preapproval requested (Section II, UN 3090, primary non-rechargeable lithium metal batteries)
5. A detailed description and digital photos or diagrams of your inner packaging. Packaging must be designed to protect the battery terminals from contact with another lithium battery or cell (or metal or any item that is capable of conducting electricity) in order to prevent short-circuiting.

Submit the above information to dgadmin@fedex.com. Please allow two business days for a response from FedEx. If you are unable to send your request via email, please contact the Customer Service Hotline at 0120-003200 to discuss other means to submit your request for approval.

Purchase and Use Special Section II Exception Labels

You must also purchase special FedEx Express Section II exception labels from our approved vendor, Moore Wallace, an RR Donnelly Company. You must complete the Lithium Battery Label Order Form and Moore Wallace credit application. Fax the completed order form and credit application to the attention of Shara Watermeier, care of Fiona Henry at 1.901.748.2926.

To expedite the process, please pay with a credit card, so your order can be shipped within 24 hours. To reordered exception labels, you must maintain current status on all invoices. You may be refused additional orders if your invoices are past due.

Affix a Section II exception label on each package that contains primary (non-rechargeable) lithium batteries prepared under IATA Packing Instruction 968. The portion of the label that denotes Cargo Aircraft Only must remain on one face of the package without wrapping. Download a sample of the Section II exception labels (form numbers refer to the Lithium Battery Label Order Form above):

- Form M-10095: Horizontal 6mm Text (534 Kb PDF)
- Form M-10096: Horizontal 12mm Text (506 Kb PDF)
Lithium Metal Batteries UN 3090 Section IA and Section IB

How to obtain preapproval

Lithium Metal Batteries UN 3090 Section IA and Section IB: how to obtain preapproval

Shippers must be preapproved by FedEx Express Dangerous Goods Administration in order to ship lithium metal batteries, UN 3090 Section IA and Section IB.

Obtain Preapproval

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1. FedEx account number
2. Company name and complete address (include country for orders outside the U.S.)
3. Contact name(s) and phone number (in case of questions related to the preapproval) Type of preapproval requested (fully regulated UN 3090, lithium metal batteries [primary non-rechargeable])
4. A detailed description and digital photos or diagrams of your inner packaging. Packaging must be designed to protect the battery terminals from contact with another lithium battery or cell (or metal or any item that is capable of conducting electricity) in order to prevent short-circuiting.

Submit the above information to dgadmin@fedex.com. Please allow two business days for a response from FedEx. If you are unable to send your request via email, please contact the Customer Service Hotline at 0120-003200 to discuss other means to submit your request for approval.

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