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LITHIUM ION BATTERIES

Note:

- FedEx Express will not accept any item with an A183 Special Provision, even with a Competent Authority approval. [FX-04E]
- 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-05C]
- Call FedEx customer service and ask for the International Hotline/ Specialist to check on commodity acceptability for international shipments

** Check: http://images.fedex.com/us/services/pdf/LithiumBatteries_Limitations.pdf

Lithium Ion

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

Section IA
Acceptable to dangerous goods locations where 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)
- Lithium Battery Class 9 Hazard label or Class 9 Miscellaneous Dangerous Goods label (See Figure 1 or 2)
- Cargo Aircraft Only (CAO) label required (See Figure 5)
- Dangerous goods surcharge
- State of charge (SoC) not exceeding 30% of their rated design capacity for cells and batteries without competent authority approval of both the state of origin and state of the operator

Limit per package:
CAO = 35kg

~ or ~

Section II

- Not accepted per IATA operator variation FX-05A; must be offered as Section IA or IB.

Section IB
Acceptable to dangerous goods locations where 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.

- Strong rigid outer packaging
- Lithium Battery Class 9 Hazard label or Class 9 Miscellaneous Dangerous Goods label (See Figure 1 or 2)
- Completed Lithium Battery mark or Lithium Battery label (See Figure 3 or 4)
- Cargo Aircraft Only (CAO) label required (See Figure 5)
- Dangerous goods surcharge
- IB on Shippers Declaration after packing Instruction
- State of charge (SoC) not exceeding 30% of their rated design capacity for cells and batteries without competent authority approval of both the state of origin and state of the operator

Limit per package:
CAO = 10kg

FedEx Express does not provide these DG Labels. Customers may order these labels from vendors, such as those at www.iata.org/labels.



Lithium Battery Class 9 Hazard Label
Figure 1



Class 9 Miscellaneous Dangerous Goods Hazard Label
Figure 2



Lithium Battery Mark
Figure 3

Shipper must add UN number(s). **AND**

Shipper must complete phone number portion of label.



Lithium Battery Label
Figure 4

Shipper must complete phone number portion of label. **AND**

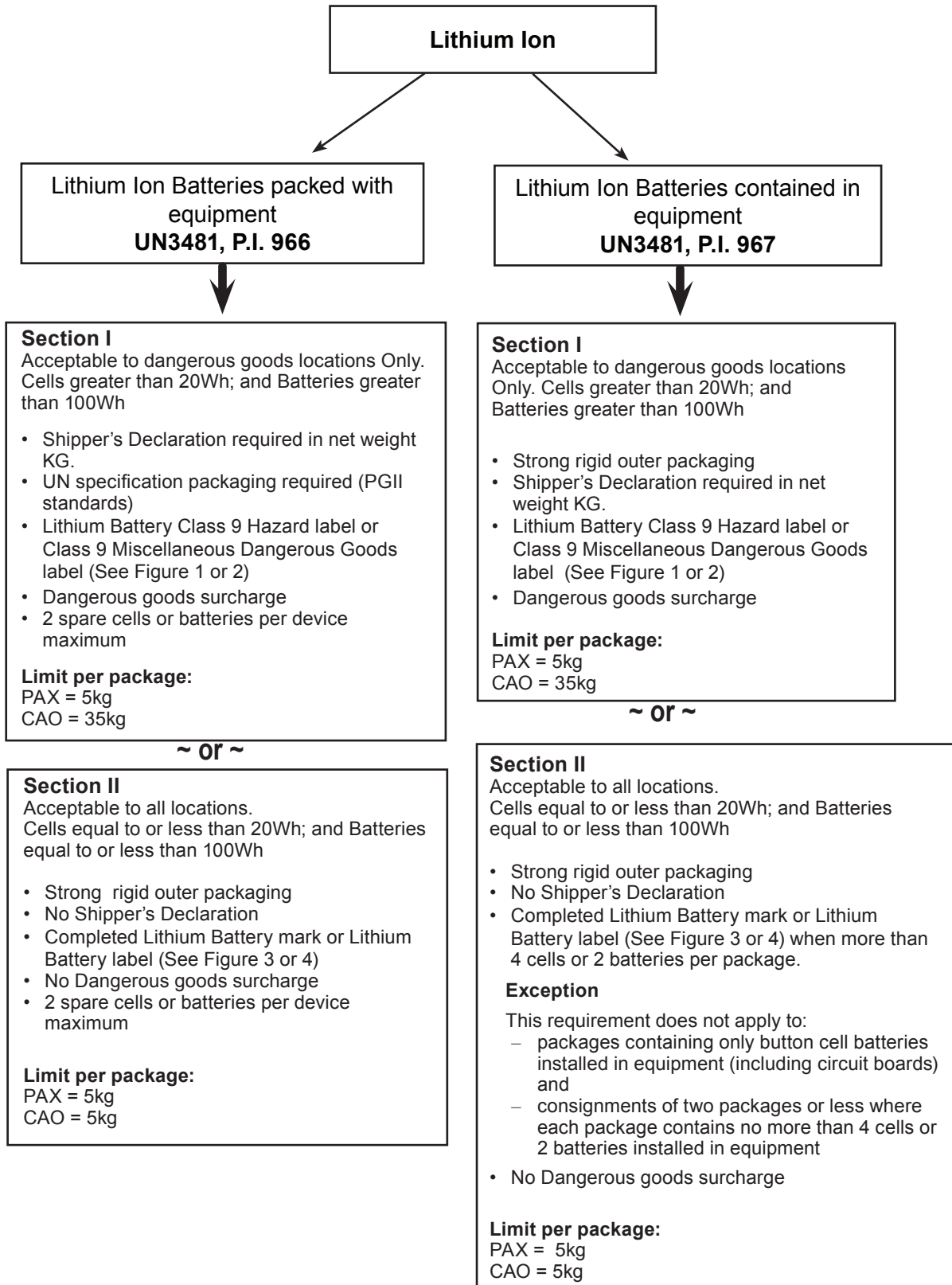
"Lithium ion battery" OR "Lithium metal battery" **AND**

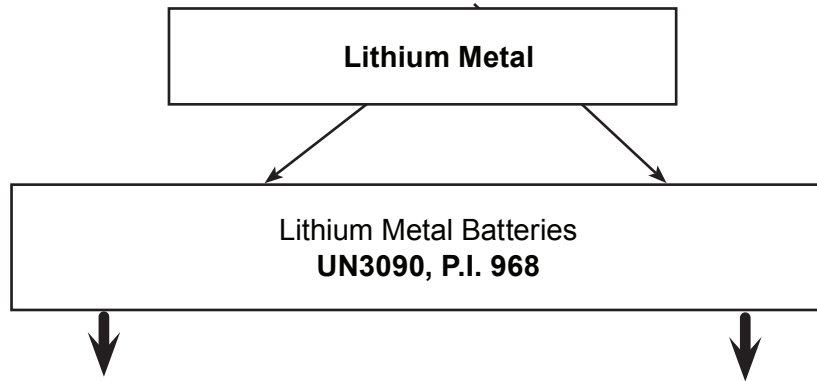
Mark the UN number(s) on the package adjacent to the label per FX-05D.

NOTE: FX-05D will have an effective date of July 1, 2017 in order to provide a 6 month transition.



Figure 5





Section IA
 Acceptable to dangerous goods locations where 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)
- Lithium Battery Class 9 Hazard label or Class 9 Miscellaneous Dangerous Goods label (See Figure 1 or 2)
- Cargo Aircraft Only (CAO) label required (See Figure 5)
- Dangerous goods surcharge
- Shipper must be on Section I (IA/IB) preapproval list (FX-05B)

Limit per package:
 Must be on CAO = 35kg

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

- Shipper's Declaration required in net weight KG.
- Strong rigid outer packaging.
- Lithium Battery Class 9 Hazard label or Class 9 Miscellaneous Dangerous Goods label (See Figure 1 or 2)
- Completed Lithium Battery mark or Lithium Battery label (See Figure 3 or 4)
- Dangerous goods surcharge
- Shipper must be on Section I (IA/IB) preapproval list (FX-05B)
- IB on Shipper's Declaration
- Cargo Aircraft Only (CAO) label required (See Figure 5)

Limit per package:
 Must be CAO = 2.5kg

~ Or ~

Section II

- Not accepted per IATA operator variation FX-05A; must be offered as Section IA or IB.

FedEx Express does not provide these DG Labels. Customers may order these labels from vendors, such as those at www.iata.org/labels.



Lithium Battery Class 9 Hazard Label
Figure 1



Class 9 Miscellaneous Dangerous Goods Hazard Label
Figure 2



Lithium Battery Mark
Figure 3



Lithium Battery Label
Figure 4



Figure 5

Shipper must add UN number(s). **AND**

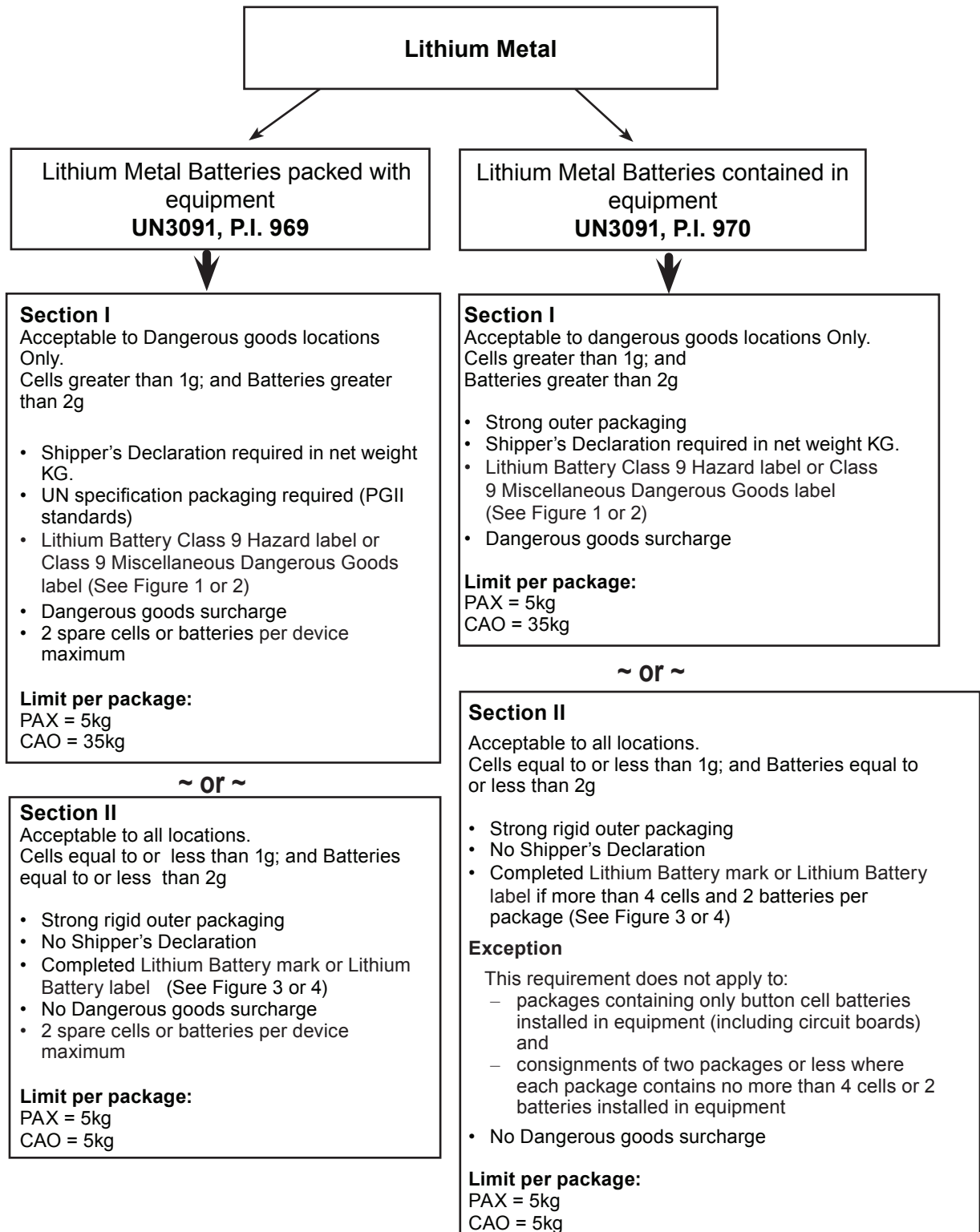
Shipper must complete phone number portion of label.

Shipper must complete phone number portion of label. **AND**

"Lithium ion battery" OR "Lithium metal battery" **AND**

Mark the UN number(s) on the package adjacent to the label per FX-05D.

NOTE: FX-05D will have an effective date of July 1, 2017 in order to provide a 6 month transition.



If you have questions please contact the Dangerous Goods/Hazardous Materials Hotline at (800) GOFEDX and press "81" or say dangerous goods. Press "4" to reach next available agent.

DISCLAIMER:

This guide is based upon the 2017 "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 governmental 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 Battery Mark

Lithium Battery Mark



Figure 3

This mark can be printed in color, completed as shown in the example on the right, and affixed to the package. When printing, be sure to select "No" for "Expand/reduce page."

Please understand that FedEx Express accepts no liability for loss or damage caused by using this data.



【Minimum size】

The mark must be in the form of a rectangle with hatched edging. The mark must be a minimum dimension of 120 mm wide x 110 mm high and the minimum width of the hatching must be 5 mm. If the size of the package so requires, the dimensions/line thickness may be reduced to not less than 105 mm wide x 74 mm high.

【Color】

The hatching must be red. The symbol must be black on white or suitable contrasting background.

【Markings】

The mark must indicate:

- **The appropriate UN number preceded by the letters "UN"**
 - "UN3090" for lithium metal cells or batteries;
 - "UN3480" for lithium ion cells or batteries;
 - "UN3091" for lithium metal cells or batteries contained in, or packed with, equipment; or
 - "UN3481" for lithium ion cells or batteries contained in, or packed with, equipment.
- Where a package contains lithium cells or batteries assigned to different UN numbers, all applicable UN numbers must be indicated on one or more marks.

- **A telephone number for additional information**

Example

Lithium Battery Handling Label (Preexisting label)



Figure 4

Note:

Packages containing lithium batteries prepared in accordance with Section IB of PI965 and Section IB of PI968 and Section II of PI965 to PI970 must bear the lithium battery mark as shown in Figure 3 except that the lithium battery handling label shown in Figure 4 may continue to be used until 31 December 2018.

Class 9 and/or Cargo Aircraft Only (CAO) label is required for Section I (either IA or IB). Please refer to the latest IATA DGR for the details.

【Minimum size】The label must be a minimum dimension of 120 mm wide x 110 mm high except labels of 105 mm wide x 74 mm high may be used on packages containing lithium batteries where the packages are of dimensions such that they can only bear smaller labels.

【Color】The border of the label must have red diagonal hatching. Text and symbols black on a contrasting background.

【Markings】 The following markings are required:

- **Type of Battery** on the label at *
 - "Lithium ion battery" for rechargeable lithium batteries
 - "Lithium metal battery" for non-rechargeable lithium batteries
 - "Lithium ion and Lithium metal batteries" for packages containing both types of batteries
- **Telephone number for additional information** on the label at xxx.xxx.xxxx
- **UN number(s)** on the package adjacent to the label per FX-05D.

NOTE: FX-05D will have an effective date of July 1, 2017 in order to have a 6 month transition.

Lithium Metal Batteries UN 3090 Section IA and Section IB

Due to an IATA regulation to prohibit transport of lithium metal batteries on passenger aircraft effective as of January 1, 2015, there will be certain restrictions in destinations where FedEx is able to accept lithium metal battery shipments

FedEx will limit transport of UN3090 shipments to locations where Dangerous Goods are accepted via FedEx International Priority Service. However, depending on required routing, these shipments may need to be returned to shippers due to prohibitions on carrying such shipments aboard passenger aircraft.

This restriction only applies to lithium metal batteries when shipped by themselves, and does not apply to batteries packed with equipment or contained in equipment.

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.

Note:

Effective Jan. 1, 2017, FedEx Express will no longer accept UN 3090 or UN 3480 lithium batteries tendered to us as IATA Section II. Instead, these shipments must be tendered as fully regulated Section I (either Section IA or Section IB).

Shippers who are on the UN 3090 Section II preapproved list will automatically be placed on the UN 3090 Section I list. You will not need to reapply for preapproval. The Section II Exception Label can no longer be used effective Jan. 1, 2017.

Obtain Preapproval

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

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)
4. Type of preapproval requested (fully regulated UN 3090, 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.
6. Proof of UN38.3 test

Submit the above information to UN3090preapprovalrequest@fedex.com. **Information must be submitted in English.**

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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