LITHIUM BATTERIES GUIDANCE

IN ACCORDANCE WITH THE

IATA DANGEROUS GOODS REGULATIONS 57TH EDITION 2016

DHL Express – Global Restricted Commodities Group
2016 Lithium Batteries Regulations

Defective / Damaged Batteries:
DHL will **NOT** accept any shipments with lithium batteries (ion or metal) that are **confirmed or suspected** to be defective* and/or damaged (*regardless of how the condition is and in whichever quantities*).

DHL will **NOT** accept any batteries that have been recalled by the battery supplier/manufacturer nor any waste batteries meant for recycling or disposal purposes (regardless of condition).

→ *A defective battery may not exhibit any damage at all!*

Any equipment packed with or containing lithium batteries (in particular equipment returned for repair purposes as part of reverse logistics/service parts program) exhibiting above mentioned condition, must have the **batteries removed** from the equipment in order to be accepted for carriage with DHL.

Important Disclaimer:
Please note that the information contained in this Guide is purely illustrative and does not replace the study of the Dangerous Goods Regulations to perform any tasks related to the preparation of shipments containing Lithium Batteries.

DHL will not be held responsible for any inaccuracy, error or omission, regardless of cause.
Lithium battery shipments pertaining to Section IB of PI965 / PI968, and all Section II shipments requiring a lithium battery handling label must be accompanied by a → **Transport Document**.

Please be aware that for shipments → **to, within or from Asia**

additional relevant supporting documents may need to be presented. Please contact your local DHL Customer Service Representative for more details.
2016 Lithium Batteries Regulations: Battery Types

Step 1 – What type of battery are you shipping?

- Lithium Ion Batteries or cells
  - Rechargeable (secondary) lithium ion or lithium polymer cells or batteries.
  - Very commonly found in portable consumer electronics such as laptops, mobile phones, MP3 players, camcorders, cordless power tools, etc.

- Lithium Metal Batteries or cells
  - Non-rechargeable (primary) lithium metal or lithium alloy cells or batteries
  - Longer life than standard alkaline batteries / cells, and commonly used in cameras, smoke detectors, etc.
Step 2 – How are you shipping them?

- Batteries / cells only
- Batteries / cells packed with equipment (separately in the same package)
- Batteries / cells contained in equipment
2016 Lithium Batteries Regulations: Lithium Metal Batteries

Step 2 – How are you shipping them?

- Batteries / cells only
- Batteries / cells packed with equipment (separately in the same package)
- Batteries / cells contained in equipment
2016 Lithium Batteries Regulations: Watt Hours

Step 3 – What is the capacity (Watt Hour* rating) of your battery?

- Cells and Batteries ≤ 2.7 Wh
- Cells > 2.7 Wh ≤ 20 Wh
- Batteries > 2.7 Wh ≤ 100 Wh
- Cells > 20 Wh Batteries > 100 Wh

If shipped without equipment, cells and/or batteries of these three types must not be combined in the same package!

*The Watt Hours must be indicated on the outside of the battery, for batteries manufactured as of January 2009. Laptops, mobile phones and other small consumer electronics usually have batteries with less than 100 Watt Hours (except for perhaps some extra duration batteries). Use the formula Ampere Hours x Voltage in case the Watt Hour rating is not marked on the battery.*
Step 3 – How much lithium does your battery / cell contain?

Cells and Batteries ≤ 0.3 g

Cells > 0.3 g ≤ 1 g

Batteries > 0.3 g ≤ 2 g

Cells > 1 g Batteries > 2 g

If shipped without equipment, cells and/or batteries of these three types must not be combined in the same package!

Cell → a single electrochemical unit
Battery → a number of cells electrically connected to each other and packed together in a common housing
2016 Lithium Batteries Regulations: Lithium Ion Batteries

Step 4 – How many cells does your package contain in total?

Please note:
Do not confuse package with overpack. The above refers to the number of cells or batteries per individual package regardless of whether the package is contained in an overpack.
Step 4 – How many batteries does your package contain in total?

Please note:
Do not confuse package with overpack. The above refers to the number of cells or batteries per individual package regardless of whether the package is contained in an overpack.
Step 4 – How many cells does your package contain in total?

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Step 4 – How many batteries does your package contain in total?

Please note:
Do not confuse package with overpack. The above refers to the number of cells or batteries per individual package regardless of whether the package is contained in an overpack.
2016 Lithium Batteries Regulations: Watt Hour Rating

Step 3 – What is the capacity (Watt Hour* rating) of your battery?

Cells
≤ 20 Wh
or Batteries
≤ 100 Wh

Cells
> 20 Wh
or Batteries
> 100 Wh

*The Watt Hours must be indicated on the outside of the battery, for batteries manufactured as of January 2009. Laptops, mobile phones and other small consumer electronics have batteries with less than 100 Watt Hours (except perhaps some extra duration batteries). Use the formula Ampere Hours x Voltage in case the Watt Hour rating is not marked on the battery).

→ Cell
a single encased electrochemical unit

→ Battery
a number of cells electrically connected to each other and packed together in a common housing
2016 Lithium Batteries Regulations: Watt Hour Rating

Step 3 – What is the capacity (Watt Hour* rating) of your battery?

Cells
≤ 20 Wh
or Batteries
≤ 100 Wh

Cells
> 20 Wh
or Batteries
> 100 Wh

*The Watt Hours must be indicated on the outside of the battery, for batteries manufactured as of January 2009. Laptops, mobile phones and other small consumer electronics have batteries with less than 100 Watt Hours (except perhaps some extra duration batteries). Use the formula Ampere Hours x Voltage in case the Watt Hour rating is not marked on the battery.

→ Cell
a single encased electrochemical unit

→ Battery
a number of cells electrically connected to each other and packed together in a common housing
Step 3 – How much lithium does your battery / cell contain?

Cells
- ≤ 1 g
- or Batteries
  - ≤ 2 g

Cells
- > 1 g
- or Batteries
  - > 2 g
Step 3 – How much lithium does your battery / cell contain?

Cells
≤ 1 g
or Batteries
≤ 2 g

Cells
> 1 g
or Batteries
> 2 g
Step 4 – How many cells or batteries does your package contain in total?

Please note:
Do not confuse package with overpack. The above refers to the number of cells or batteries per individual package regardless of whether the package is contained in an overpack.
2016 Lithium Batteries Regulations: Lithium Metal Batteries

Step 4 – How many cells or batteries does your package contain in total?

- ≤ 4 Cells or ≤ 2 Batteries
- > 4 Cells or > 2 Batteries

Please note:
Do not confuse package with overpack. The above refers to the number of cells or batteries per individual package regardless of whether the package is contained in an overpack.
# UN3480, Lithium Ion Batteries / Cells – PI965 Section II

<table>
<thead>
<tr>
<th>Packaging</th>
<th>Package Tests</th>
<th>Documentation</th>
<th>Labeling</th>
<th>DHL Service</th>
</tr>
</thead>
</table>
| Each battery / cell must be protected against a short circuit and placed in an inner packaging that completely encloses the battery / cell, then placed in a strong rigid outer packaging. | 1.2 m drop test | *The following statement is required on the waybill:*

“Lithium Ion Batteries in compliance with Section II of PI965”

*Each consignment must be accompanied with a document with an indication that:*

- the package contains lithium ion cells or batteries;
- the package must be handled with care and that a flammability hazard exists if the package is damaged;
- special procedures must be followed in the event the package is damaged, to include inspection and repacking if necessary; and
- a telephone number for additional information. | ![CAUTION! Lithium Ion Battery](image) | *Time Definite International* account must be approved |

Maximum **2.5 kg** net quantity per package

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**Limited service in TDI Express to, from, within the Asia Pacific region due to air carriers restrictions.**

For additional information please contact your local DHL representative.
### UN3480, Lithium Ion Batteries / Cells – PI965 Section IA

<table>
<thead>
<tr>
<th>Packaging</th>
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<th>DHL Service</th>
</tr>
</thead>
<tbody>
<tr>
<td>Each battery /cell must be protected against a short circuit and placed in an inner packaging that completely encloses the battery /cell, then placed in a strong rigid outer packaging</td>
<td>Packing Group II performance standards (UN specification packaging)</td>
<td>Shipper’s Declaration Waybill</td>
<td>![Labeling Icon]</td>
<td>![DHL Service Icon]</td>
</tr>
</tbody>
</table>

**Max. net quantity per package:**

- **5 kg** on Passenger and Cargo Aircraft (PAX)
- **35 kg** for Cargo Aircraft Only (CAO)

Lithium ion batteries / cells packed according to PI965 Section IA are not accepted in DHL TDI Express when shipped via road to, from, or transiting an ADR member state.
## UN3480, Lithium Ion Batteries / Cells – PI965 Section II

<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>Each battery /cell must</td>
<td>1.2 m drop test</td>
<td>The following statement is required on the waybill:</td>
<td></td>
<td>Time Definite International account must be approved</td>
</tr>
<tr>
<td>be protected against a short</td>
<td></td>
<td>“Lithium Ion Batteries in compliance with Section II of PI965”</td>
<td></td>
<td></td>
</tr>
<tr>
<td>circuit and placed in an inner</td>
<td></td>
<td>Each consignment must be accompanied with a document with an indication that:</td>
<td></td>
<td>Air Capacity Sales</td>
</tr>
<tr>
<td>packaging that completely</td>
<td></td>
<td>- the package contains lithium ion cells or batteries;</td>
<td></td>
<td>Select “LB” and mention “Section II” in the commodity tab</td>
</tr>
<tr>
<td>encloses the battery /cell,</td>
<td></td>
<td>- the package must be handled with care and that a flammability hazard exists if the package is damaged;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>then placed in a strong rigid</td>
<td></td>
<td>- special procedures must be followed in the event the package is damaged, to include inspection and repacking if necessary; and</td>
<td></td>
<td></td>
</tr>
<tr>
<td>outer packaging</td>
<td></td>
<td>- a telephone number for additional information.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>UN specification is not</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>required</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maximum 8 cells per package</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Limited service in TDI Express to, from, within the Asia Pacific region due to air carrier restrictions. For additional information please contact your local DHL representative.
### UN3480, Lithium Ion Batteries / Cells – PI965 Section II

<table>
<thead>
<tr>
<th>Packaging</th>
<th>Package Tests</th>
<th>Documentation</th>
<th>Labeling</th>
<th>DHL Service</th>
</tr>
</thead>
</table>
| Each battery /cell must be protected against a short circuit and placed in an inner packaging that completely encloses the battery /cell, then placed in a strong rigid outer packaging. UN specification is not required. Maximum 2 batteries per package. | 1.2 m drop test | *The following statement is required on the waybill:*  
“Lithium Ion Batteries in compliance with Section II of PI965”  
*Each consignment must be accompanied with a document with an indication that:*  
- the package contains lithium ion cells or batteries;  
- the package must be handled with care and that a flammability hazard exists if the package is damaged;  
- special procedures must be followed in the event the package is damaged, to include inspection and repacking if necessary; and  
- a telephone number for additional information. | | *Time Definite International* account must be approved. | *Air Capacity Sales*  
Select “LB” and mention “Section II” in the commodity tab. |

**Limited service in TDI Express to, from, within the Asia Pacific region due to air carrier restrictions. For additional information please contact your local DHL representative.**

January 2016
### UN3480, Lithium Ion Batteries / Cells – PI965 Section IB

<table>
<thead>
<tr>
<th>Packaging</th>
<th>Package Tests</th>
<th>Documentation</th>
<th>Labeling</th>
<th>DHL Service</th>
</tr>
</thead>
</table>
| Each battery /cell must be protected against a short circuit and placed in an inner packaging that completely encloses the battery /cell, then placed in a strong rigid outer packaging | 1.2 m drop test | Shipper's Declaration  
*The following statement is required on the waybill:*

*“Dangerous Goods as per attached DGD” or “Dangerous Goods as per attached Shipper's Declaration”*  
*Each consignment must be accompanied with a document with an indication that:*
- the package contains lithium ion cells or batteries;  
- the package must be handled with care and that a flammability hazard exists if the package is damaged;  
- special procedures must be followed in the event the package is damaged, to include inspection and repacking if necessary; and  
- a telephone number for additional information. | ![Label](image) | **Time Definite International** account must be approved  
**Air Capacity Sales**  
Select "D" or for US only "DG" and add a description in the commodity tab |

Maximum **10 kg** net weight per package for either „Passenger and Cargo Aircraft” or „Cargo Aircraft Only “shipments
### UN3481, Lithium Ion Batteries / Cells – PI966 Section II

<table>
<thead>
<tr>
<th>Packaging</th>
<th>Package Tests</th>
<th>Documentation</th>
<th>Labeling</th>
<th>DHL Service</th>
</tr>
</thead>
</table>
| Each battery /cell must be protected against a short circuit and placed in an inner packaging that completely encloses the battery /cell, then placed in a strong rigid outer packaging. The equipment must be secured against any movement within the outer packaging and must be equipped with an effective means of preventing accidental activation. **Maximum number of batteries /cells per package:** Those necessary to power the equipment plus 2 spares. **Maximum net quantity of lithium batteries or cells per package = 5 kg** per package for either „Passenger and Cargo Aircraft“ or „Cargo Aircraft Only“ shipments. | 1.2 m drop test | The following statement is required on the waybill: “Lithium Ion Batteries in compliance with Section II of PI966” Each consignment must be accompanied with a document with an indication that:  
- the package contains lithium ion cells or batteries;  
- the package must be handled with care and that a flammability hazard exists if the package is damaged;  
- special procedures must be followed in the event the package is damaged, to include inspection and repacking if necessary; and  
- a telephone number for additional information. |  | **Time Definite International** account must be approved  
**Air Capacity Sales** Select "LB" and mention “Section II” in the commodity tab |
### UN3481, Lithium Ion Batteries / Cells – PI966 Section I

<table>
<thead>
<tr>
<th>Packaging</th>
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<th>Documentation</th>
<th>Labeling</th>
<th>DHL Service</th>
</tr>
</thead>
<tbody>
<tr>
<td>Each battery /cell must be protected against a short circuit and placed in an inner packaging that completely encloses the battery /cell, then placed in a strong rigid outer packaging</td>
<td>Packing Group II performance standards (UN specification packaging) for those packages containing batteries</td>
<td>Shipper's Declaration Waybill</td>
<td>![label] where applicable: ![air capacity sales]</td>
<td>Time Definite International</td>
</tr>
<tr>
<td>The equipment must be secured against any movement within the outer packaging and must be equipped with an effective means of preventing accidental activation.</td>
<td></td>
<td></td>
<td>![accommodation required]</td>
<td>![air capacity sales] requires booking as ACP/D + PAX or CAO</td>
</tr>
<tr>
<td><strong>Maximum number of batteries:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Those necessary to power the equipment plus 2 spares</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Max. net quantity per package (exclusive of equipment):</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 kg on Passenger and Cargo Aircraft (PAX)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>35 kg for Cargo Aircraft Only shipments (CAO)</td>
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<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Lithium ion batteries / cells packed according to PI966 Section I are not accepted in DHL TDI Express when shipped via road to, from, or transiting an ADR member state.
### UN3481, Lithium Ion Batteries / Cells – PI967 Section II

<table>
<thead>
<tr>
<th>Packaging</th>
<th>Package Tests</th>
<th>Documentation</th>
<th>Labeling</th>
<th>DHL Service</th>
</tr>
</thead>
<tbody>
<tr>
<td>The equipment must be packed in strong rigid outer packaging constructed of suitable material of adequate strength and design in relation to the packaging's capacity and its intended use unless the cell or battery is afforded equivalent protection by the equipment in which it is contained.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Max. <strong>5 kg</strong> net qty of Lithium-Ion cells/ batteries per package (excl. of equipment).</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

No requirements

**Important:**
For shipments meeting above conditions, there is the requirement that the consignment is limited to a maximum of 2 packages (each containing maximum 4 cells or 2 batteries contained in equipment).
If the shipment exceeds 2 packages, the application of the lithium battery handling label (and the subsequent requirements) apply.
This limitation of 2 packages per consignment enters only in force as off 1st of January 2017, since the regulations foresee a 12 month transitional period, however, shippers are recommender to implement it as soon as possible.

“**Lithium ion batteries in compliance with Section II of PI967 less than 2 batteries or 4 cells**” must be added on the waybill for all shipments to, from, within the Asia Pacific region.
### Packaging

Each battery /cell must be protected against a short circuit and placed in an inner packaging that completely encloses the battery /cell, then placed in a strong rigid outer packaging.

UN specification packaging is not required. Devices with batteries must be placed in an outer packaging of suitable construction and strength so as to provide adequate protection, unless the battery is afforded equivalent protection by the equipment in which it is contained.

Max. 5 kg net qty of Lithium-Ion cells/ batteries per package (excl. of equipment). for either „Passenger and Cargo Aircraft” or „Cargo Aircraft Only “shipments.

### Package Tests

Strong rigid outer packaging equivalent to its capacity and intended use.

### Documentation

The following statement is required on the waybill:

"Lithium Ion Batteries in compliance with Section II of PI967"

Each consignment must be accompanied with a document with an indication that:

- the package contains lithium ion cells or batteries;
- the package must be handled with care and that a flammability hazard exists if the package is damaged;
- special procedures must be followed in the event the package is damaged, to include inspection and repacking if necessary; and
- a telephone number for additional information.

### Labeling

- CAUTION!

### DHL Service

- **Time Definite International**
  - account must be approved

- **Air Capacity Sales**
  - Select "LB" and mention “Section II” in the commodity tab
### UN3481, Lithium Ion Batteries / Cells – PI967 Section I

<table>
<thead>
<tr>
<th>Packaging</th>
<th>Package Tests</th>
<th>Documentation</th>
<th>Labeling</th>
<th>DHL Service</th>
</tr>
</thead>
</table>
| Each battery /cell must be protected against a short circuit and placed in an inner packaging that completely encloses the battery /cell, then placed in a strong rigid outer packaging | Strong rigid outer packaging equivalent to its capacity and intended use | Shipper’s Declaration Waybill | ![Labeling Icon] | **Time Definite International**

| **Max. net quantity per package (exclusive of equipment):** | **5 kg** on Passenger and Cargo Aircraft (PAX) | **35 kg** for Cargo Aircraft Only (CAO) | **Air Capacity Sales** requires booking as ACP/D + PAX or CAO |

Lithium ion batteries / cells packed according to PI967 Section I are not accepted in TDI Express when shipped via road to, from, or transiting an ADR member state.
**UN3090, Lithium Metal Batteries / Cells – PI968 Section II**

<table>
<thead>
<tr>
<th>Packaging</th>
<th>Package Tests</th>
<th>Documentation</th>
<th>Labeling</th>
<th>DHL Service</th>
</tr>
</thead>
</table>
| Each battery /cell must be protected against a short circuit and placed in an inner packaging that completely encloses the battery /cell, then placed in a strong rigid outer packaging | 1.2 m drop test | *The following words are required on the waybill:*  
- “Lithium Metal Batteries in compliance with Section II of PI968”  
- „Cargo Aircraft Only“ or „CAO“  

*Each consignment must be accompanied with a document with an indication that:*  
- the package contains lithium metal cells or batteries;  
- the package must be handled with care and that a flammability hazard exists if the package is damaged;  
- special procedures must be followed in the event the package is damaged, to include inspection and repacking if necessary; and  
- a telephone number for additional information. | [Image] | [Image] |
| UN specification not required | | | | |
| Maximum net quantity per package: **2.5 kg** | | | | |
| **Cargo Aircraft Only!** | | | | |

---

**Shipping ACS consignments to, from or within the Asia Pacific region is possible for RCG approved shipments on approved routings only.**

**Important:**

If part of a consolidation, packages and/or overpacks containing batteries assigned to this section must be offered to DHL separately from the goods in the consolidation that are not subject to the ICAO / IATA DGR. Furthermore, these batteries will not be accepted if tendered in a customer pre-built ULD.
**UN3090, Lithium Metal Batteries / Cells – PI968 Section IA**

<table>
<thead>
<tr>
<th>Packaging</th>
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<th>DHL Service</th>
</tr>
</thead>
<tbody>
<tr>
<td>Each battery /cell must be protected against a short circuit and placed in an inner packaging that completely encloses the battery /cell, then placed in a strong rigid outer packaging</td>
<td>Packing Group II performance standards (UN specification packaging)</td>
<td>Shipper’s Declaration Waybill</td>
<td></td>
<td><strong>Time Definite International</strong></td>
</tr>
<tr>
<td>Max. net quantity per package: <strong>35 kg</strong></td>
<td></td>
<td></td>
<td></td>
<td><strong>Air Capacity Sales</strong> requires booking as ACP/D + CAO</td>
</tr>
</tbody>
</table>

**Cargo Aircraft Only**

Lithium ion batteries / cells packed according to PI968 Section IA are not accepted in DHL TDI Express when shipped via road to, from, or transiting an ADR member state.

Shipping ACS consignments to, from or within the Asia Pacific region is possible for RCG approved shipments on approved routings only.
## UN3090, Lithium Metal Batteries / Cells – PI968 Section II

<table>
<thead>
<tr>
<th>Packaging</th>
<th>Package Tests</th>
<th>Documentation</th>
<th>Labeling</th>
<th>DHL Service</th>
</tr>
</thead>
</table>
| Each battery /cell must be protected against a short circuit and placed in an inner packaging that completely encloses the battery /cell, then placed in a strong rigid outer packaging | 1.2 m drop test | The following words are required on the waybill: 
- “Lithium Metal Batteries in compliance with Section II of PI968”
- „Cargo Aircraft Only“ or „CAO“ | | Time Definite International
Forbidden |
| UN specification not required | | Each consignment must be accompanied with a document with an indication that:
- the package contains lithium metal cells or batteries;
- the package must be handled with care and that a flammability hazard exists if the package is damaged;
- special procedures must be followed in the event the package is damaged, to include inspection and repacking if necessary; and
- a telephone number for additional information. | | Air Capacity Sales
Select “LB” and mention “Section II” in the commodity tab |
| Maximum 8 cells per package | | | | |
| Cargo Aircraft Only | | | | |

**Shipping ACS consignments to, from or within the Asia Pacific region is possible for RCG approved shipments on approved routings only.**

**Important:**
If part of a consolidation, packages and/or overpacks containing batteries assigned to this section must be offered to DHL separately from the goods in the consolidation that are not subject to the ICAO / IATA DGR. Furthermore, these batteries will not be accepted if tendered in a customer pre-built ULD.
### Packaging

<table>
<thead>
<tr>
<th>Each battery /cell must be protected against a short circuit and placed in an inner packaging that completely encloses the battery /cell, then placed in a strong rigid outer packaging</th>
<th>1.2 m drop test</th>
</tr>
</thead>
<tbody>
<tr>
<td>UN specification not required</td>
<td>The following words are required on the waybill:</td>
</tr>
<tr>
<td>Maximum <strong>2 batteries</strong> per package</td>
<td>- “Lithium Metal Batteries in compliance with Section II of PI968”</td>
</tr>
<tr>
<td><strong>Cargo Aircraft Only</strong></td>
<td>- „Cargo Aircraft Only“ or „CAO“</td>
</tr>
</tbody>
</table>

### Documentation

Each consignment must be accompanied with a document with an indication that:
- the package contains lithium metal cells or batteries;
- the package must be handled with care and that a flammability hazard exists if the package is damaged;
- special procedures must be followed in the event the package is damaged, to include inspection and repacking if necessary; and
- a telephone number for additional information.

### Labeling

| Time Definite International |
| Forbidden |
| Air Capacity Sales |

Select "LB" and mention “Section II” in the commodity tab.

### DHL Service

Shipping ACS consignments to, from or within the Asia Pacific region is possible for RCG approved shipments on approved routings only.

**Important:**
If part of a consolidation, packages and/or overpacks containing batteries assigned to this section must be offered to DHL separately from the goods in the consolidation that are not subject to the ICAO / IATA DGR. Furthermore, these batteries will not be accepted if tendered in a customer pre-built ULD.
**UN3090, Lithium Metal Batteries / Cells – PI968 Section IB**

<table>
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<tr>
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</tr>
</thead>
</table>
| Each battery /cell must be protected against a short circuit and placed in an inner packaging that completely encloses the battery /cell, then placed in a strong rigid outer packaging | 1.2 m drop test | Shipper’s Declaration  
Waybill  
In addition to the Shipper’s Declaration, each consignment must be accompanied with a document with an indication that:  
- the package contains lithium metal cells or batteries;  
- the package must be handled with care and that a flammability hazard exists if the package is damaged;  
- special procedures must be followed in the event the package is damaged, to include inspection and repacking if necessary; and  
- a telephone number for additional information. | ![Labeling Icon] | ![DHL Service Icon] |
| UN specification not required                                             |               |                                                                               |          |             |
| Max. net weight per package: 2.5 kg                                       |               |                                                                               |          |             |
| **Cargo Aircraft Only!**                                                  |               |                                                                               |          |             |

Forbidden in TDI Express to, from, within the Asia Pacific region due to air carrier restriction

Shipping ACS consignments to, from or within the Asia Pacific region is possible for RCG approved shipments on approved routings only.

January 2016
## UN3091, Lithium Metal Batteries / Cells – PI969 Section II

<table>
<thead>
<tr>
<th>Packaging</th>
<th>Package Tests</th>
<th>Documentation</th>
<th>Labeling</th>
<th>DHL Service</th>
</tr>
</thead>
<tbody>
<tr>
<td>Each battery/cell must be protected against a short circuit and placed in an inner packaging that completely encloses the battery/cell, then placed in a strong rigid outer packaging. Equipment must be secured against movement within the outer packaging, and against accidental activation.</td>
<td>1.2 m drop test</td>
<td>The following statement is required on the waybill: “Lithium Metal Batteries in compliance with Section II of PI969” Each consignment must be accompanied with a document with an indication that: ❑ the package contains lithium metal cells or batteries; ❑ the package must be handled with care and that a flammability hazard exists if the package is damaged; ❑ special procedures must be followed in the event the package is damaged, to include inspection and repacking if necessary; and ❑ a telephone number for additional information.</td>
<td>Time Definite International account must be approved. Air Capacity Sales Select &quot;LB&quot; and mention “Section II” in the commodity tab.</td>
<td></td>
</tr>
</tbody>
</table>
### UN3091, Lithium Metal Batteries / Cells – PI969 Section I

<table>
<thead>
<tr>
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<th>Labeling</th>
<th>DHL Service</th>
</tr>
</thead>
</table>
| Each battery /cell must be protected against a short circuit and placed in an inner packaging that completely encloses the battery /cell, then placed in a strong rigid outer packaging. Equipment must be secured against movement within the outer packaging, and also against accidental activation. **If prepared for transport on Passenger Aircraft:**
  - Each battery /cell must be packed in either a rigid metal intermediate or a metal outer packaging.
  - Each battery /cell must be surrounded by cushioning material that is non-combustible / non-conductive.  
  
  **Max. net quantity per package (exclusive of equipment):**
  - 5 kg on Passenger and Cargo Aircraft (PAX)
  - 35 kg for Cargo Aircraft Only shipments (CAO)  

### Packing Group II performance standards

**UN specification packaging required for those packages containing batteries**  

**Shipper’s Declaration Waybill**

- **where applicable**

**Time Definite International**

**Air Capacity Sales**

- requires booking as ACP/D + PAX or CAO

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**Lithium ion batteries / cells packed according to PI969 Section I are not accepted in TDI Express when shipped via road to, from, or transiting an ADR member state.**
### UN3091, Lithium Metal Batteries / Cells – PI970 Section II

<table>
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</thead>
<tbody>
<tr>
<td>The equipment must be packed in strong rigid outer packaging constructed of suitable material of adequate strength and design in relation to the packaging’s capacity and its intended use unless the cell or battery is afforded equivalent protection by the equipment in which it is contained.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Exempt from any marking and labeling requirements</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Max. 5 kg net qty of Lithium-Ion cells/ batteries per package (excl. of equipment).</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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**Important:**
For shipments meeting above conditions, there is the requirement that the consignment is limited to a maximum of 2 packages (each containing maximum 4 cells or 2 batteries contained in equipment).
If the shipment exceeds 2 packages, the application of the lithium battery handling label (and the subsequent requirements) apply.
This limitation of 2 packages per consignment enters only in force as of 1st of January 2017, since the regulations foresee a 12 month transitional period, however, shippers are recommender to implement it as soon as possible.

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**“Lithium metal batteries in compliance with Section II of PI970 less than 2 batteries or 4 cells”** must be added on the waybill for all shipments to, from, within the Asia Pacific region.
### UN3091, Lithium Metal Batteries / Cells – PI970 Section II

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</tr>
</thead>
</table>
| Each battery /cell must be protected against a short circuit and placed in an inner packaging that completely encloses the battery /cell, then placed in a strong rigid outer packaging | Strong outer packaging equivalent to its capacity and intended use             | The following statement is required on the waybill: “Lithium Metal Batteries in compliance with Section II of PI970” Each consignment must be accompanied with a document with an indication that:  
- the package contains lithium metal cells or batteries;  
- the package must be handled with care and that a flammability hazard exists if the package is damaged;  
- special procedures must be followed in the event the package is damaged, to include inspection and repacking if necessary; and  
- a telephone number for additional information. |          | Time Definite International account must be approved |
| UN specification packaging are not required. Equipment with batteries must be placed in outer packaging of suitable construction and strength so as to provide adequate protection, unless the battery is afforded equivalent protection by the equipment in which it is contained. |                                                                                |                                                                                                                                             |          | Air Capacity Sales            |
| Max. net quantity of Lithium metal batteries/ cells per package = 5 kg (excl. of equipment) for either ”Passenger and Cargo Aircraft” or ”Cargo Aircraft Only “shipments |                                                                                |                                                                                                                                             |          | Select ”LB” and mention “Section II” in the commodity tab
### UN3091, Lithium Metal Batteries / Cells – PI970 Section I

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<tr>
<td>Each battery /cell must be protected against a short circuit and placed in an inner packaging that completely encloses the battery /cell, then placed in a strong rigid outer packaging</td>
<td>Strong outer packaging equivalent to its capacity and intended use</td>
<td>Shipper’s Declaration</td>
<td></td>
<td><strong>Time Definite International</strong></td>
</tr>
<tr>
<td>UN specification packaging is not required. Equipment with batteries must be placed in outer packaging of suitable construction and strength so as to provide adequate protection, unless the battery is afforded equivalent protection by the equipment in which it is contained.</td>
<td></td>
<td>Waybill</td>
<td></td>
<td><strong>Air Capacity Sales</strong></td>
</tr>
<tr>
<td>The quantity of lithium metal contained in any piece of equipment must not exceed 500 g per battery and 12 g per cell.</td>
<td></td>
<td>where applicable:</td>
<td></td>
<td>requires booking as ACP/D + PAX or CAO</td>
</tr>
</tbody>
</table>

*Max. net quantity per package (exclusive of equipment):*

- **5 kg** on Passenger and Cargo Aircraft
- **35 kg** for Cargo Aircraft Only shipments

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**Lithium ion batteries / cells packed according to PI970 Section I are not accepted in TDI Express when shipped via road to, from, or transiting an ADR member state.**