

# LITHIUM BATTERIES GUIDANCE.

IN ACCORDANCE WITH THE IATA DANGEROUS GOODS  
REGULATIONS 65<sup>TH</sup> EDITION 2024.

Last updated January 2024.

**DHL Business Unit – Excellence. Simply delivered.**



## 2024 Lithium Batteries Regulations.

### Concerning defective / damaged batteries:

DHL will **NOT** accept any cells or batteries identified by the manufacturer as being defective for safety reasons, or that have been damaged, that have the potential of producing a dangerous evolution of heat, fire or short circuit (e.g. those being returned to the manufacturer for safety reasons).

DHL will **NOT** accept any waste batteries meant for recycling or disposal purposes (regardless of condition).



**Please note that *a defective battery may not exhibit any damage at all!***



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## 2024 Lithium Batteries Regulations (continuation).

Any equipment packed with or containing lithium batteries (in particular equipment returned for repair purposes as part of reverse logistics / service parts program), 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.

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# 2024 Lithium Batteries Regulations: Battery Types.

## Step 1 – What type of battery are you shipping?

*Tip: Click the below buttons to get more details on each type of batteries.*

**Lithium ion batteries or cells** are rechargeable (secondary) lithium ion or lithium polymer cells or batteries.

These are very commonly found in portable consumer electronics such as laptops, mobile phones, MP3 players, camcorders, cordless power tools, etc.

**Lithium Ion Batteries or Cells.**

**Lithium metal batteries or cells**

are non-rechargeable (primary) lithium metal or lithium alloy cells or batteries. These have a longer life than standard alkaline batteries or cells, and are commonly used in cameras, smoke detectors, etc.

**Lithium Metal Batteries or Cells.**

# 2024 Lithium Batteries Regulations: Lithium Ion Batteries.

## Step 2 – How are you shipping them?

*Tip: Click the below buttons to get more details.*

**Batteries /  
cells  
only.**



**Batteries / cells packed with  
equipment (separately in the  
same package).**



**Batteries / cells  
contained in  
equipment .**



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# 2024 Lithium Batteries Regulations: Lithium Metal Batteries.

## Step 2 – How are you shipping them?

*Tip: Click the below buttons to get more details.*

**Batteries /  
cells  
only.**



**Batteries / cells packed with  
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**Batteries / cells  
contained in  
equipment .**



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## 2024 Lithium Batteries Regulations: Watt Hour Rating.

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

*Tip: Click the below buttons to get more details on packaging and labelling / marking.*

#### **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).

**Cells ≤ 20 Wh or Batteries ≤ 100 Wh.**

#### **Cells > 20 Wh or Batteries > 100 Wh.**

A cell is a single encased electrochemical unit.

A battery is a number of cells electrically connected to each other and packed together in a common housing.

**Cells > 20 Wh or Batteries > 100 Wh.**

## 2024 Lithium Batteries Regulations: Watt Hour Rating.

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

*Tip: Click the below buttons to get more details on packaging and labelling / marking.*

#### **Cells $\leq$ 20 Wh or Batteries $\leq$ 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).

**Cells  $\leq$  20 Wh or Batteries  $\leq$  100 Wh.**

#### **Cells $>$ 20 Wh or Batteries $>$ 100 Wh.**

A cell is a single encased electrochemical unit.

A battery is a number of cells electrically connected to each other and packed together in a common housing.

**Cells  $>$  20 Wh or Batteries  $>$  100 Wh.**



## 2024 Lithium Batteries Regulations: Watt Hour Rating.

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

*Tip: Click the below buttons to get more details on packaging and labelling / marking.*

#### **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).

**Cells ≤ 20 Wh or Batteries ≤ 100 Wh.**

#### **Cells > 20 Wh or Batteries > 100 Wh.**

A cell is a single encased electrochemical unit.

A battery is a number of cells electrically connected to each other and packed together in a common housing.

**Cells > 20 Wh or Batteries > 100 Wh.**

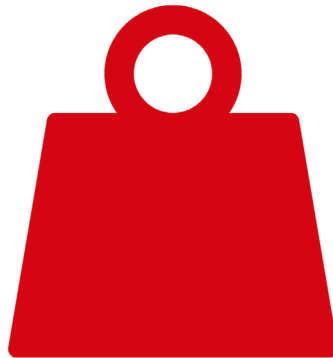
## 2024 Lithium Batteries Regulations:

### Step 3 – How much lithium does your battery / cell contain?

*Tip: Click the below buttons to get more details on packaging and labelling / marking.*

Cells  $\leq$  1 g or Batteries  $\leq$  2 g.

Cells  $>$  1 g or Batteries  $>$  2 g.



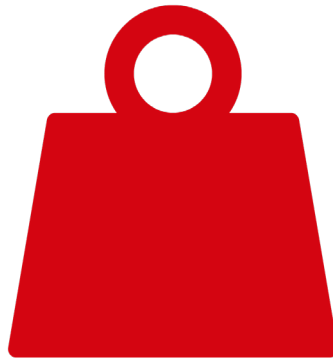
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### Step 3 – How much lithium does your battery / cell contain?

*Tip: Click the below buttons to get more details on packaging and labelling / marking.*

Cells  $\leq$  1 g or Batteries  $\leq$  2 g.

Cells  $>$  1 g or Batteries  $>$  2 g.



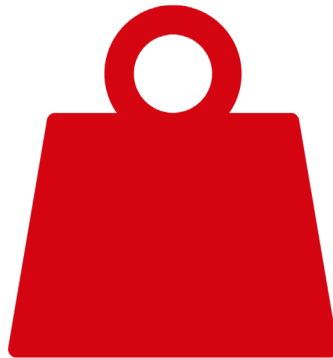
## 2024 Lithium Batteries Regulations:

### Step 3 – How much lithium does your battery / cell contain?

*Tip: Click the below buttons to get more details on packaging and labelling / marking.*

Cells  $\leq$  1 g or Batteries  $\leq$  2 g.

Cells  $>$  1 g or Batteries  $>$  2 g.



## 2024 Lithium Batteries Regulations:

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

*Tip: Click the below buttons to get more details on packaging and labelling / marking.*

**≤ 4 Cells or ≤ 2 Batteries.**

**> 4 Cells or > 2 Batteries.**



**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.

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## 2024 Lithium Batteries Regulations:

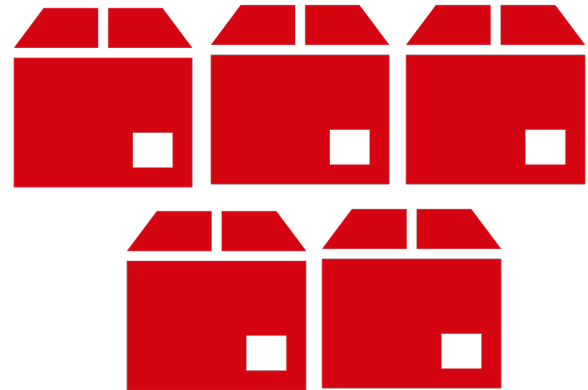
### Step 4 – How many packages are in the consignment?

*Tip: Click the below buttons to get more details on packaging and labelling / marking.*

≤ 2 Packages.



> 2 Packages.



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## 2024 Lithium Batteries Regulations:

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

*Tip: Click the below buttons to get more details on packaging and labelling / marking.*

**≤ 4 Cells or ≤ 2 Batteries.**

**> 4 Cells or > 2 Batteries.**



**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.

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## 2024 Lithium Batteries Regulations:

### Step 4 – How many packages are in the consignment?

*Tip: Click the below buttons to get more details on packaging and labelling / marking.*

≤ 2 Packages.



> 2 Packages.



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## UN3480, Lithium Ion Batteries / Cells – PI965 Section IA.

### **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.

### **State of Charge (SoC) of the battery or cell must not exceed 30%.**

Cells and batteries must not be packed in the same outer packaging, or placed in an overpack with, Dangerous Goods classified in Class 1 (except 1.4S), Division 2.1 (flammable gases), Class 3 (flammable liquids), Division 4.1 (flammable solids) and Division 5.1 (oxidizers).

Maximum **35 kg** net quantity of lithium batteries or cells per package.

### **Cargo Aircraft Only (CAO).**

**Package test:** Packing Group II performance standards. **UN specification packaging is required.**

### Labeling / Marking:



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## UN3480, Lithium Ion Batteries / Cells – PI965 Section IA (continuation).

### Documentation:

**Shipper's Declaration is required.** The following statement must be mentioned on the (air)waybill:

- “**Dangerous Goods as per associated DGD**” or “**Dangerous Goods as per associated Shipper's Declaration**”.
- “**Cargo Aircraft Only**” or “**CAO**”.

**DHL Services:** (**TDI** = Time Definite International , **ACS** = Air Capacity Sales).

**TDI** - Account must be approved. Lithium ion batteries/cells packed according to this section are not accepted in TDI Express when transported via road to/from an ADR member state. Service Code **HE**.

**ACS** - Select **DG** and mention **CAO** in the restricted commodity type.

**ADR**

**Return to parent slide**

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

### 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.

Cells and batteries must not be packed in the same outer packaging, or placed in an overpack with, Dangerous Goods classified in Class 1 (except 1.4S), Division 2.1 (flammable gases), Class 3 (flammable liquids), Division 4.1 (flammable solids) and Division 5.1 (oxidizers).

**State of Charge (SoC) of the battery or cell must not exceed 30%.**

Maximum **10 kg** net quantity of lithium batteries or cells per package **Cargo Aircraft Only (CAO).**

**Package test:** 1.2 m drop test.

### Labeling / Marking:



**Continue to next slide**

## UN3480, Lithium Ion Batteries / Cells – PI965 Section IB (continuation).

### Documentation:

**Shipper's Declaration is required.** The following statement must be mentioned on the (air)waybill:

- “**Dangerous Goods as per associated DGD**” or “**Dangerous Goods as per associated Shipper's Declaration**”.
- “**Cargo Aircraft Only**” or “**CAO**”.

**DHL Services:** (TDI = Time Definite International , ACS = Air Capacity Sales):

**TDI** - Account must be approved. The service is limited due to CAO restrictions.  
Service Code **HE**.

**ACS** - Select **DG** and mention **CAO** in the restricted commodity type.

# UN3481, Lithium Ion Batteries / Cells – PI966 Section II.

## Packaging:

Cells and/or batteries must be completely enclosed in inner packaging then placed in a strong rigid outer packaging; or must be completely enclosed in inner packaging then placed with equipment 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 or cells per package = **those necessary to power the equipment plus 2 spares sets.** (A **set** of cells or batteries is the number of individual cells or batteries that are required to power each piece of equipment)  
Maximum net quantity of lithium batteries or cells per package is **5 kg** for either **Passenger and Cargo Aircraft** or **Cargo Aircraft Only** shipments.

**Package test:** 1.2 m drop test.

## Labeling / Marking:



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## UN3481, Lithium Ion Batteries / Cells – PI966 Section II (continuation).

### Documentation:

Shipper's Declaration is not required. The following statement must be mentioned on the (air)waybill:

- **“Lithium ion batteries in compliance with Section II of PI966”.**

**DHL Services:** (**TDI** = Time Definite International , **ACS** = Air Capacity Sales):

**TDI** - Account must be approved. Service Code **HD**.

**ACS** - Select **LB** and mention **Section II** in the restricted commodity type.

# UN3481, Lithium Ion Batteries / Cells – PI966 Section I.

## Packaging:

Cells and/or batteries must be completely enclosed in inner packaging then placed in a strong rigid outer packaging; or must be completely enclosed in inner packaging then placed with equipment 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.

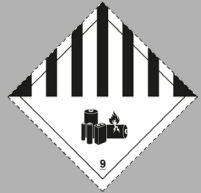
Maximum number of batteries /cells per package = **those necessary to power the equipment plus 2 spares sets.** (A **set** of cells or batteries is the number of individual cells or batteries that are required to power each piece of equipment).

Maximum net quantity of lithium batteries or cells per package is **5 kg** for **Passenger and Cargo Aircraft (PAX)** and **35 kg** for **Cargo Aircraft Only (CAO)** shipments.

**As a DHL requirement** cells and batteries must not be packed in the same outer packaging, or placed in an overpack, with Dangerous Goods classified in Class 1 (except 1.4S), Division 2.1, Class 3, Division 4.1 and Division 5.1.

**Package test:** Packing Group II performance standards. **UN specification packaging is required.**

## Labeling / Marking:



When CAO is used:



Continue to next slide

# UN3481, Lithium Ion Batteries / Cells – PI966 Section I (continuation).

## Documentation:

**Shipper's Declaration is required.** The following statement must be mentioned on the (air)waybill:

- “**Dangerous Goods as per associated DGD**” or “**Dangerous Goods as per associated Shipper's Declaration**”.
- “**Cargo Aircraft Only**” or „**CAO**” (only when CAO applies).

**DHL Services:** (TDI = Time Definite International , ACS = Air Capacity Sales):

**TDI** - Account must be approved. **Lithium ion batteries / cells packed according to this section are not accepted in TDI Express when transported via road to/from an ADR member state.** Service Code **HE**.

**ACS** - Select **DG** and mention **PAX** or **CAO** as applicable, in the restricted commodity type.

**ADR**

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## UN3481, Lithium Ion Batteries / Cells – PI967 Section II.

### Packaging:

The equipment must be packed in strong rigid outer packaging. Large equipment can be offered for transport unpackaged or on pallets when the cells or batteries are afforded equivalent protection by the equipment in which they are contained. Where multiple pieces of equipment are packed in the same outer packaging, each piece of equipment must be packed to prevent contact with other equipment.

Maximum **5 kg** net qty of lithium batteries or cells per package (excluding the equipment).

Maximum 2 packages per shipment (consignment).

**Package test:** No requirements.

### Labeling / Marking:

No requirements.

Continue to next slide

# UN3481, Lithium Ion Batteries / Cells – PI967 Section II (continuation).

## **Documentation:**

No requirements.

**DHL Services:** (TDI = Time Definite International , ACS = Air Capacity Sales):

**TDI** - No requirements.

**ACS** - No requirements.

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## UN3481, Lithium Ion Batteries / Cells – PI967 Section II.

### Packaging:

The equipment must be packed in strong rigid outer packaging. Large equipment can be offered for transport unpackaged or on pallets when the cells or batteries are afforded equivalent protection by the equipment in which they are contained. Where multiple pieces of equipment are packed in the same outer packaging, each piece of equipment must be packed to prevent contact with other equipment.

Maximum net quantity of lithium batteries or cells per package is **5 kg** (excluding the equipment) for either **Passenger and Cargo Aircraft** or **Cargo Aircraft Only** shipments.

**Package test:** Strong rigid outer packaging equivalent to its capacity and intended use.

### Labeling / Marking:



**Note:** the mark is not required for packages containing only **button cell batteries** installed in equipment (including circuit boards).

**Continue to next slide**

## UN3481, Lithium Ion Batteries / Cells – PI967 Section II (continuation).

### Documentation:

Shipper's Declaration is not required. The following statement must be mentioned on the (air)waybill:

- “**Lithium ion batteries in compliance with Section II of PI967**”.

**Note:** The statement is not required for packages containing only **button cell batteries** installed in equipment (including circuit boards).

**DHL Services:** (**TDI** = Time Definite International , **ACS** = Air Capacity Sales):

**TDI** - Account must be approved. Service Code **HV**.

**ACS** - Select **LB** and mention **Section II** in the restricted commodity type.

## UN3481, Lithium Ion Batteries / Cells – PI967 Section I.

### Packaging:

The equipment must be packed in strong rigid outer packaging. Large equipment can be offered for transport unpackaged or on pallets when the cells or batteries are afforded equivalent protection by the equipment in which they are contained. Where multiple pieces of equipment are packed in the same outer packaging, each piece of equipment must be packed to prevent contact with other equipment.

Maximum net quantity of lithium batteries or cells per package (excluding the equipment) is **5 kg** for **Passenger and Cargo Aircraft (PAX)** and **35 kg** for **Cargo Aircraft Only (CAO)** shipments.

As a DHL requirement cells and batteries must not be packed in the same outer packaging, or placed in an overpack, with Dangerous Goods classified in Class 1 (except 1.4S), Division 2.1, Class 3, Division 4.1 and Division 5.1.

**Package test:** Strong rigid outer packaging equivalent to its capacity and intended use.

### Labeling / Marking:



When CAO is used:



**Continue to next slide**

# UN3481, Lithium Ion Batteries / Cells – PI967 Section I (continuation).

## Documentation:

**Shipper's Declaration is required.** The following statement must be mentioned on the (air)waybill:

- “**Dangerous Goods as per associated DGD**” or “**Dangerous Goods as per associated Shipper's Declaration**”.
- “**Cargo Aircraft Only**” or “**CAO**” (only when CAO applies).

**DHL Services** (**TDI** = Time Definite International , **ACS** = Air Capacity Sales):

**TDI** - Account must be approved. Lithium ion batteries / cells packed according to this section are not accepted in TDI Express when transported via road to/from an ADR member state. Service Code **HE**.

**ACS** - Select **DG** and mention **PAX** or **CAO** as applicable, in the restricted commodity type.

**ADR**

**Return to parent slide**

# UN3090, Lithium Metal Batteries / Cells – PI968 Section IA.

## 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.

Cells and batteries must not be packed in the same outer packaging, or placed in an overpack with, Dangerous Goods classified in Class 1 (except 1.4S), Division 2.1 (flammable gases), Class 3 (flammable liquids), Division 4.1 (flammable solids) and Division 5.1 (oxidizers).

Maximum **35 kg** net quantity of lithium batteries or cells per package. **Cargo Aircraft Only (CAO).**

**Package test:** Packing Group II performance standards. **UN specification packaging is required.**

## Labeling / Marking:



Continue to next slide

# UN3090, Lithium Metal Batteries / Cells – PI968 Section IA (continuation).

## Documentation:

**Shipper's Declaration is required.** The following statement must be mentioned on the (air)waybill:

- “**Dangerous Goods as per associated DGD**” or “**Dangerous Goods as per associated Shipper's Declaration**”.
- “**Cargo Aircraft Only**” or “**CAO**”.

**DHL Services:** (**TDI** = Time Definite International , **ACS** = Air Capacity Sales):

**TDI** - Account must be approved. Lithium metal batteries/cells packed according to this section are not accepted in TDI Express when transported via road to/from an ADR member state. Service Code **HE**.

**ACS** - Select **DG** and mention **CAO** in the restricted commodity type. Shipping ACS consignments to, from or within the Asia Pacific region is possible for RCG approved shipments on approved routings only.

**ADR**

**Return to parent slide**



## UN3090, Lithium Metal Batteries / Cells – PI968 Section IB.

### 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.

Cells and batteries must not be packed in the same outer packaging, or placed in an overpack with, Dangerous Goods classified in Class 1 (except 1.4S), Division 2.1 (flammable gases), Class 3 (flammable liquids), Division 4.1 (flammable solids) and Division 5.1 (oxidizers).

Maximum **2.5 kg** net quantity of lithium batteries or cells per package **Cargo Aircraft Only (CAO)**.

**Package test:** 1.2 m drop test.

### Labeling / Marking:



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## UN3090, Lithium Metal Batteries / Cells – PI968 Section IB (continuation).

### Documentation:

**Shipper's Declaration is required.** The following statement must be mentioned on the (air)waybill:

- **“Dangerous Goods as per associated DGD” or “Dangerous Goods as per associated Shipper's Declaration”.**
- **“Cargo Aircraft Only” or “CAO”.**

**DHL Services:** (TDI = Time Definite International , ACS = Air Capacity Sales):

**TDI** - Account must be approved. Forbidden in TDI Express to, from or within the Asia Pacific region due to air carriers restrictions. Service Code **HE**.

**ACS** - Select **DG** and mention **CAO** in the restricted commodity type. Shipping ACS consignments to, from or within the Asia Pacific region is possible for RCG approved shipments on approved routings only.

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

### Packaging:

Cells and/or batteries must be completely enclosed in inner packaging then placed in a strong rigid outer packaging; or must be completely enclosed in inner packaging then placed with equipment 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 sets.** (A **set** of cells or batteries is the number of individual cells or batteries that are required to power each piece of equipment)

Maximum net quantity of lithium batteries or cells per package is **5 kg** for either **Passenger and Cargo Aircraft** or **Cargo Aircraft Only** shipments.

**Package test:** 1.2 m drop test.

### Labeling / Marking:



Continue to next slide

## UN3091, Lithium Metal Batteries / Cells – PI969 Section II (continuation).

### Documentation:

Shipper's Declaration is not required. The following statement must be mentioned on the (air)waybill:

- **“Lithium metal batteries in compliance with Section II of PI969”.**

**DHL Services:** (TDI = Time Definite International , ACS = Air Capacity Sales):

**TDI** - Account must be approved. Service Code **HM**.

**ACS** - Select **LB** and mention **Section II** in the restricted commodity type.

## UN3091, Lithium Metal Batteries / Cells – PI969 Section I.

### Packaging:

Cells and/or batteries must be completely enclosed in inner packaging then placed in a strong rigid outer packaging; or must be completely enclosed in inner packaging then placed with equipment 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.

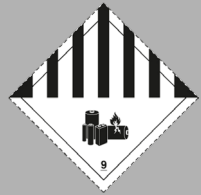
Maximum number of batteries /cells per package = **those necessary to power the equipment plus 2 spares sets.** (A **set** of cells or batteries is the number of individual cells or batteries that are required to power each piece of equipment)

Maximum net quantity of lithium batteries or cells per package is **5 kg** for **Passenger and Cargo Aircraft** (PAX) and **35 kg** for **Cargo Aircraft Only** (CAO) shipments.

**As a DHL requirement** cells and batteries must not be packed in the same outer packaging, or placed in an overpack, with Dangerous Goods classified in Class 1 (except 1.4S), Division 2.1, Class 3, Division 4.1 and Division 5.1.

**Package test:** Packing Group II performance standards. **UN specification packaging is required.**

### Labeling / Marking:



When CAO is used:



Continue to next slide

# UN3091, Lithium Metal Batteries / Cells – PI969 Section I (continuation).

## Documentation:

**Shipper's Declaration is required.** The following statement must be mentioned on the (air)waybill:

- “**Dangerous Goods as per associated DGD**” or “**Dangerous Goods as per associated Shipper's Declaration**”.
- “**Cargo Aircraft Only**” or “**CAO**” (only when CAO applies).

**DHL Services:** (**TDI** = Time Definite International , **ACS** = Air Capacity Sales):

**TDI** - Account must be approved. Lithium metal batteries / cells packed according to this section are not accepted in TDI Express when transported via road to/from an ADR member state. Service Code **HE**.

**ADR**

**ACS** - Select **DG** and mention **PAX** or **CAO** as applicable in the restricted commodity type.

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## UN3091, Lithium Metal Batteries / Cells – PI970 Section II.

### Packaging:

The equipment must be packed in strong rigid outer packaging. Large equipment can be offered for transport unpackaged or on pallets when the cells or batteries are afforded equivalent protection by the equipment in which they are contained. Where multiple pieces of equipment are packed in the same outer packaging, each piece of equipment must be packed to prevent contact with other equipment.

Maximum net quantity of lithium batteries or cells per package (excluding the equipment) is **5 kg**.

Maximum 2 packages per shipment (consignment).

**Package test:** No requirements.

### Labeling / Marking:

No  
requirements.

Continue to next slide

## UN3091, Lithium Metal Batteries / Cells – PI970 Section II (continuation).

### **Documentation:**

No requirements.

**DHL Services:** (**TDI** = Time Definite International , **ACS** = Air Capacity Sales):

**TDI** - No requirements.

**ACS** - No requirements.

[Return to parent slide](#)



## UN3091, Lithium Ion Batteries / Cells – PI970 Section II.

### Packaging:

The equipment must be packed in strong rigid outer packaging. Large equipment can be offered for transport unpackaged or on pallets when the cells or batteries are afforded equivalent protection by the equipment in which they are contained. Where multiple pieces of equipment are packed in the same outer packaging, each piece of equipment must be packed to prevent contact with other equipment.

Maximum net quantity of lithium batteries or cells per package is **5 kg** (excluding the equipment) for either **Passenger and Cargo Aircraft** or **Cargo Aircraft Only** shipments.

**Package test:** Strong rigid outer packaging equivalent to its capacity and intended use.

### Labeling / Marking:



**Note:** the mark is not required for packages containing only **button cell batteries** installed in equipment (including circuit boards).

**Continue to next slide**

## UN3091, Lithium Ion Batteries / Cells – PI970 Section II (continuation).

### **Documentation:**

Shipper's Declaration is not required. The following statement must be mentioned on the (air)waybill:

- **“Lithium metal batteries in compliance with Section II of PI970”.**

**Note:** The statement is not required for packages containing only **button cell batteries** installed in equipment (including circuit boards).

**DHL Services:** (**TDI** = Time Definite International , **ACS** = Air Capacity Sales):

**TDI** - Account must be approved. Service Code **HW**.

**ACS** - Select **LB** and mention **Section II** in the restricted commodity type.

## UN3091, Lithium Metal Batteries / Cells – PI970 Section I.

### Packaging:

The equipment must be packed in strong rigid outer packaging. Large equipment can be offered for transport unpackaged or on pallets when the cells or batteries are afforded equivalent protection by the equipment in which they are contained. Where multiple pieces of equipment are packed in the same outer packaging, each piece of equipment must be packed to prevent contact with other equipment.

The quantity of lithium metal contained in any piece of equipment must not exceed 500 g per battery and 12 g per cell.

Maximum net quantity of lithium batteries or cells per package (excluding the equipment) is **5 kg** for **Passenger and Cargo Aircraft (PAX)** and **35 kg** for **Cargo Aircraft Only (CAO)** shipments.

As a DHL requirement cells and batteries must not be packed in the same outer packaging, or placed in an overpack, with Dangerous Goods classified in Class 1 (except 1.4S), Division 2.1, Class 3, Division 4.1 and Division 5.1.

**Package test:** Strong rigid outer packaging equivalent to its capacity and intended use.

### Labeling / Marking:



When CAO is used:



**Continue to next slide**

## UN3091, Lithium Metal Batteries / Cells – PI970 Section I (continuation).

### Documentation:

**Shipper's Declaration is required.** The following statement must be mentioned on the (air)waybill:

- “**Dangerous Goods as per associated DGD**” or “**Dangerous Goods as per associated Shipper's Declaration**”.
- “**Cargo Aircraft Only**” or “**CAO**” (only when CAO was chosen).

**DHL Services** (**TDI** = Time Definite International , **ACS** = Air Capacity Sales):

**TDI** - Account must be approved. Lithium metal batteries / cells packed according to this section are not accepted in TDI Express when transported via road to/from an ADR member state. Service Code **HE**.

**ACS** - Select **DG** and mention **PAX** or **CAO** as applicable in the restricted commodity type.

**ADR**

**Return to parent slide**

## ADR Member States

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### Letter Country

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A Albania, Andorra, Armenia,  
Austria, Azerbaijan.

---

B Belarus, Belgium, Bosnia  
and Herzegovina, Bulgaria.

---

C Croatia, Cyprus, Czech  
Republic.

---

D Denmark.

---

---

### Letter Country

---

E Estonia.

---

F Finland, France.

---

G Georgia,  
Germany, Greece.

---

H Hungary.

---

I Iceland, Ireland, Italy.

---

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### Letter Country

---

K Kazakhstan.

---

L Latvia, Liechtenstein,  
Lithuania,  
Luxembourg.

---

M Malta,  
Moldova Republic of,  
Montenegro, Morocco.

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**Continue to next slide**

## ADR Member States

---

**Letter Country**

---

N Netherlands, Nigeria, North Macedonia, Norway.

---

P Poland, Portugal.

---

R Romania, Russian Federation.

---

---

**Letter Country**

---

S San Marino, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland.

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T Tajikistan, Tunisia, Türkiye.

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U Uganda, Ukraine, United Kingdom, Uzbekistan.

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**THANK YOU!**