

### Japan Airlines Co.,Ltd.

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JAL CARGO INFO-22-027

26th December, 2022

Dear Valued Customers,

### **Dangerous Goods Handling in Japan Airlines from January 2023**

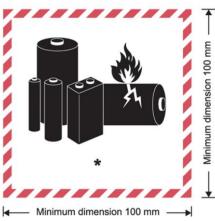
We thank you for your continued support to JAL CARGO.

Please be advised that IATA Dangerous Goods Regulations (DGR) will be partly amended and these amendments will be reflected to IATA DGR 64th Edition with effect from 1st January 2023. In this letter, we would like to notify our customers of the changes related to lithium batteries indicated on the IATA DGR 64<sup>th</sup> Edition.

Your understanding and cooperation to ensure safe transport of dangerous goods by air will be highly appreciated.

### 1. Relaxation of the Required Statement within the Lithium Battery Mark

From 1<sup>st</sup> January 2023, it is no longer necessary to indicate "telephone number for additional information" within the lithium battery mark. Meanwhile, the requirement to indicate UN number(s) within that mark remains unchanged.



- \* Place for UN number(s)
- \* \* Place for telephone number for additional information (Note)

Note: As a transitional procedure, telephone number for additional information may be indicated until 31st December 2026.

## 2. Addition of the Requirements for Overpack Used for the Transport of Lithium Batteries Packed under Section II of Packing Instructions 966, 967, 969 and 970

Requirements on the overpack used for the transport of lithium batteries packed under Section II of Packing Instructions 966, 967, 969, and 970 have been added as follows:

- (1) The packages must be secured within the overpack.
- (2) The intended function of each package must not be impaired by the overpack.

Background: There were some irregularities on the use of vulnerable overpacks, such as net-sacks, for the transport of several fibreboard boxes containing lithium batteries. Since the vulnerable overpacks did not contain fixing materials, fibreboard boxes inside the overpack were easily shifted, causing dent or damage to the boxes.



### 3. Prohibition of the Transport of Lithium Batteries Identified as being Damaged or Defective for Safety Reasons

In addition to lithium batteries prepared in accordance with PI965 - PI970, application of Special Provision A154 have been extended to the following dangerous goods, where all of the dangerous goods indicated below are now prohibited to be transported if lithium batteries packed with or contained in the packages listed below are identified as being damaged or defective for safety reasons.

# (1) Packages prohibited to be transported if lithium batteries contained therein are identified as being damaged or defective for safety reasons (Prohibition of the transport of these types of packages have already been indicated on the current edition (63<sup>rd</sup> edition) of the DGR)

UN number	Proper Shipping Name
UN3480	Lithium ion batteries
UN3481	Lithium ion batteries contained in equipment
UN3481	Lithium ion batteries packed with equipment
UN3090	Lithium metal batteries
UN3091	Lithium metal batteries contained in equipment
UN3091	Lithium metal batteries packed with equipment

### (2) Newly prohibited packages if lithium batteries contained in these packages being identified as damaged or defective for safety reasons (They have been added to the DGR 64<sup>th</sup> edition.)

UN number	Proper Shipping Name
UN3171	Battery powered vehicle
UN3529	Engine, fuel cell, flammable gas powered
UN3528	Engine, fuel cell, flammable liquid powered
UN3530	Engine, internal combustion
UN3529	Engine, internal combustion, flammable gas powered
UN3528	Engine, internal combustion, flammable liquid powered
UN3072	Life-saving appliance, not self-inflating
UN2990	Life-saving appliance, self-inflating
UN3529	Machinery, fuel cell, flammable gas powered
UN3528	Machinery, fuel cell, flammable liquid powered
UN3530	Machinery, internal combustion
UN3529	Machinery, internal combustion, flammable gas powered
UN3528	Machinery, internal combustion, flammable liquid powered
UN3166	Vehicle, flammable gas powered
UN3166	Vehicle, flammable liquid powered
UN3166	Vehicle, fuel cell, flammable gas powered
UN3166	Vehicle, fuel cell, flammable liquid powered

### 4. Removal of the requirement to Make Available the UN Test Summary for Lithium Button Cells Installed in Equipment

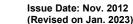
Revision has been made to the DGR to remove the requirement for manufacturers and subsequent distributors to make available the UN test summary for lithium button cells installed in equipment (including circuit boards).

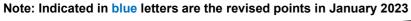
#### 5. Others

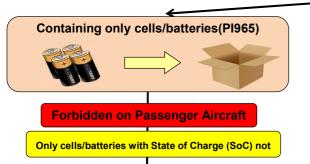
Please see the attached flowcharts for the handling of lithium batteries reflecting the amendments stated in the above paragraph 1 to 4.

#### [Attachments]

- 1.Attachment-1: Lithium Ion or Lithium Polymer Cells and Batteries (UN3480,UN3481)
- 2.Attachment-2:Lithium Metal or Lithium Alloy Cell and Batteries (UN3090, UN3091)

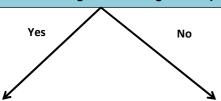




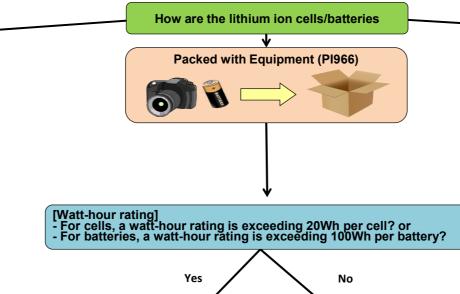


CODE

[Watt-hour rating]
- For cells, a watt-hour rating is exceeding 20Wh per cell? or
- For batteries, a watt-hour rating is exceeding 100Wh per battery?



	K	<b>Z</b>
UN3480 PI965	Section IA	Section IB
Quantity Limitation s	Max net quantity of lithium ion cells or batteries per package must not exceed 35kg	Max net quantity of lithium ion cells or batteries per package must not exceed 10kg
Declaration	Required	Required
AWB	The statement "Dangerous goods as per associated shipper's declaration" or "Dangerous goods as per associated DGD" and "Cargo Aircraft Only" or "CAO" must be shown on the AWB.	The statement "Dangerous goods as per associated shipper's declaration" or "Dangerous goods as per associated DGD" and "Cargo Aircraft Only" or "CAO" must be shown on the AWB.
Labelling Marking 【Note 1】	Lithium battery Class 9 label and CAO label shall be attached.     Marking requirements as DG shall be met in accordance with Section 7 of the DGR.	Lithium battery Class 9 label, CAO label, and lithium battery mark shall be attached.     Marking requirements as DG shall be met in accordance with Section 7 of the DGR.
UN Specificatio n Packaging	UN packaging meeting PG II performance standards	Not Required (The packaging must be capable of withstand a 1.2m drop test)
Different DGs Packed in one outer package	Cells and batteries must not be packed in the same outer packaging with dangerous goods classified in Class 1 other than Division 1.45, Division 2.1, Class 3, Division 4.1 or Division 5.1.	Cells and batteries must not be packed in the same outer packaging with dangerous goods classified in Class 1 other than Division 1.4S, Division 2.1, Class 3, Division 4.1 or Division 5.1.
Overpack	Requirements indicated on Sections 5 and 7 of the DGR must be met.     Packages containing cells and batteries must not be placed in an overpack with DGs classified in Class 1 other than Division 1.4S, Division 2.1, Class 3, Division 4.1 or Division 5.1.	Requirements indicated on Sections 5 and 7 of the DGR must be met.     Packages containing cells and batteries must not be placed in an overpack with DGs classified in Class 1 other than Division 1.4S, Division 2.1, Class 3, Division 4.1 or Division 5.1.
Shipper		
Loaded	Not Acceptable	Not Acceptable
ULD		
IMP CODE	RBI	RBI
CODE	I	I .



	K	$\mathcal{A}$
UN3481 PI966	Section I	Section II
Quantity Limitation s	Number of cells or batteries must not exceed the number required for equipment's operation plus 2 spare sets, and Max net quantity of lithium ion cells or batteries per package must not exceed the followings: - For Passenger Aircraft: 5kg; - For Cargo Aircraft only: 35kg	Number of cells or batteries must not exceed the number required for equipment's operation plus 2 spare sets, and Max net quantity of lithium ion cells or batteries per package must not exceed the followings:  - For Passenger Aircraft : 5kg;  - For Cargo Aircraft only : 5kg
Declaration	Required	Not Required
AWB	The statement "Dangerous goods as per associated shipper's declaration" or "Dangerous goods as per associated DGD" must be shown on the AWB.	The statement "Lithium ion batteries in compliance with Section II of PI966" must be shown on the AWB. (Different lithium battery types and/or packing instructions may be combined into a single statement)
Labelling Marking [Note 1]	Lithium battery Class 9 label shall be attached.     Marking requirements as dangerous goods shall be met in accordance with Section 7 of the DGR.	Lithium battery mark shall be attached.     Marking requirements as Overpack under     Section II of PI966 shall be met, if applicable.
UN Specifiation Packaging	UN Specification Packaging is required, which shall be prepared in accordance with either of the following packagings;  1. Cells and/or batteries must be completely enclosed in inner packagings, then placed in a packaging meeting the Packing Group II performance standards, then placed with the equipment in a strong, rigid outer packaging.  2. Cells and/or batteries must be completely enclosed in inner packagings, then placed with equipment in a packaging meeting Packing Group II performance standards.	UN Specification Packaging is not required, but the packaging must be capable of withstanding a 1.2m drop test.  Cells and/or batteries must be completely enclosed in inner packagings, then placed with equipment in a strong, rigid outer packaging.
Overpack	Requirements indicated on Sections 5 and 7 of the DGR must be met.	1. Requirements indicated on Section 5 and 7 of the DGR must be met. 2.(1) The packages must be secured within the overpack. (2) The intended function of each package must not be impaired by the overpack.
Shipper Loaded ULD	Not Acceptable	Acceptable
IMP CODE	RLI	ELI

Contained in Equipment (PI967) [Watt-hour rating]
- For cells, a watt-hour rating is exceeding 20Wh per cell? or
- For batteries, a watt-hour rating is exceeding 100Wh per battery? Package contains only button cell batteries installed Yes 1 operator's AWB or 1 HAWB covers more than 2 packages containing lithium batteries contained in equipment. No No Number of cells or batteries contained in one package in case of cell: more than 4 in case of battery : more than 2 UN3481 Section I Section II Section II PI967 Max net quantity of lithium ion Max net quantity of lithium ion Max net quantity of lithium ion cells or batteries per package cells or batteries per package cells or batteries per package must not exceed the must not exceed the followings: must not exceed the followings: followings: For Passenger Aircraft : 5kg For Passenger Aircraft : 5kg - For Passenger Aircraft : 5kg For Cargo Aircraft only : 5kg - For Cargo Aircraft only : 35kg - For Cargo Aircraft only: 5kg Declaration Required **Not Required** Not Required The statement "Lithium ion The statement "Dangerous batteries in compliance with Not Required goods as per associated Section II of PI967" must be shipper's declaration" or shown on the AWB. (Statement of Section II AWB (Different lithium battery types "Dangerous goods as per must not be shown on the associated DGD" must be and/or packing instructions may AWB) be combined into a single shown on the AWB. statement) 1. Lithium battery Class 9 1. Lithium battery mark shall label shall be attached. be attached. Labelling 2. Marking requirements as 2. Marking requirements as **Not Required** dangerous goods shall be Overpack under Section II of [Note 1] met in accordance with PI967 shall be met, if Section 7 of the DGR. applicable. Not Required Not Required **Not Required** Packaging . Requirements indicated on . Requirements indicated on Sections 5 and 7 of the DGR Sections 5 and 7 of the DGR must be met. must be met. Requirements indicated on .(1) The packages must be 2.(1) The packages must be Overpack Sections 5 and 7 of the DGR secured within the overpack. secured within the overpack. nust be met. (2) The intended function of each (2) The intended function of package must not be impaired each package must not be by the overpack. impaired by the overpack. Shipper Loaded ULD Not Acceptable Acceptable Acceptable RLI ELI CODE

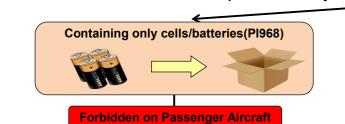
[Note1] Portable power chargers(power banks, mobile batteries etc.) and Smart Luggage have strong characteristics as "batteries." For this reason, JAL will classify these products as UN3480 Lithium ion batteries, PI965.

[Note2]Lithium battery class9 label, CAO label, and lithium battery mark must not be folded on different faces of the package. [Note3] Except for button cells installed in equipment (including circuit boards), manufacturers and subsequent distributors of cells or batteries manufactured after 30 June 2003 must make available the test summary as specified in the UN Manual of Tests and Criteria, Part III, sub-section 38.3, paragraph 38.3.5.

### Lithium Metal or Lithium Alloy Cells and Batteries (UN 3090 and UN 3091)



Issue Date: Nov. 2012 (Revised on Jan. 2023)

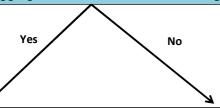


Note: Indicated in blue letters are the revised points in January 2023

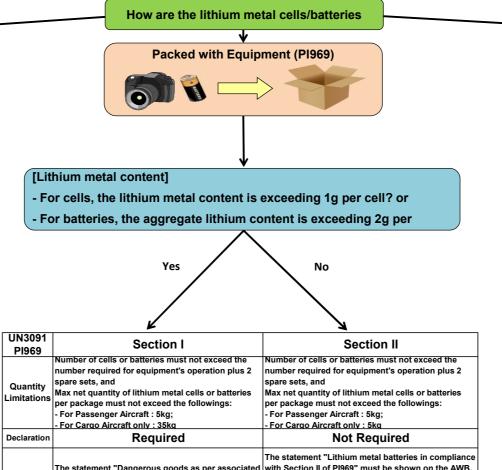
#### [Lithium metal content]

CODE

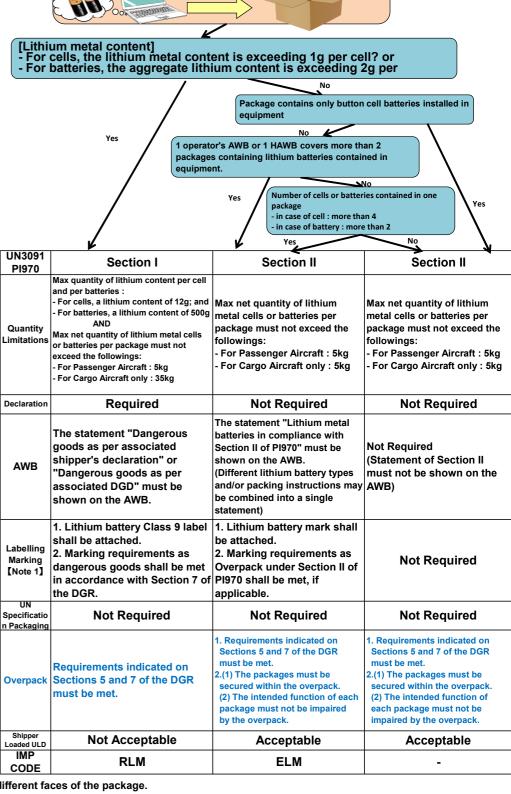
- For cells, the lithium metal content is exceeding 1g per cell? or
- For batteries, the aggregate lithium content is exceeding 2g per



UN3090 PI968	Section IA	Section IB
Quantity Limitations	Max net quantity of lithium metal cells or batteries per package must not exceed 35kg	Max net quantity of lithium metal cells or batteries per package must not exceed 2.5kg
Declaration	Required	Required
AWB	The statement "Dangerous goods as per associated shipper's declaration" or "Dangerous goods as per associated DGD" and "Cargo Aircraft Only" or "CAO" must be shown on the AWB.	The statement "Dangerous goods as per associated shipper's declaration" or "Dangerous goods as per associated DGD" and "Cargo Aircraft Only" or "CAO" must be shown on the AWB.
Labelling Marking (Note 1)	Lithium battery Class 9 label and CAO label shall be attached.     Marking requirements as DG shall be met in accordance with Section 7 of the DGR.	Lithium battery Class 9 label, CAO label, and lithium battery mark shall be attached.     Marking requirements as DG shall be met in accordance with Section 7 of the DGR.
UN Specificatio n Packaging	UN packaging meeting PG II performance standards	Not Required (The packaging must be capable of withstand a 1.2m drop test)
Different DGs Packed in one outer package	Cells and batteries must not be packed in the same outer packaging with dangerous goods classified in Class 1 other than Division 1.4S, Division 2.1, Class 3, Division 4.1 or Division 5.1.	Cells and batteries must not be packed in the same outer packaging with dangerous goods classified in Class 1 other than Division 1.4S, Division 2.1, Class 3, Division 4.1 or Division 5.1.
Overpack	Requirements indicated on Sections 5 and 7 of the DGR must be met.     Packages containing cells and batteries must not be placed in an overpack with DGs classified in Class 1 other than Division 1.4S, Division 2.1, Class 3, Division 4.1 or Division 5.1.	Requirements indicated on Sections 5 and 7 of the DGR must be met.     Packages containing cells and batteries must not be placed in an overpack with DGs classified in Class 1 other than Division 1.4S, Division 2.1, Class 3, Division 4.1 or Division 5.1.
Shipper Loaded	Not Acceptable	Not Acceptable
ULD IMP	-	-
CODE	RBM	RBM



	<u> </u>	4
UN3091 PI969	Section I	Section II
Quantity Limitations	Number of cells or batteries must not exceed the number required for equipment's operation plus 2 spare sets, and Max net quantity of lithium metal cells or batteries per package must not exceed the followings:  -For Passenger Aircraft: 5kg; -For Cargo Aircraft only: 35kg	Number of cells or batteries must not exceed the number required for equipment's operation plus 2 spare sets, and Max net quantity of lithium metal cells or batteries per package must not exceed the followings:  - For Passenger Aircraft: 5kg;  - For Cargo Aircraft only: 5kg
Declaration	Required	Not Required
AWB	The statement "Dangerous goods as per associated shipper's declaration" or "Dangerous goods as per associated DGD" must be shown on the AWB.	The statement "Lithium metal batteries in compliand with Section II of PI969" must be shown on the AWE (Different lithium battery types and/or packing instructions may be combined into a single statement)
Labelling Marking [Note 1]	Lithium battery Class 9 label shall be attached.     Marking requirements as dangerous goods shall be met in accordance with Section 7 of the DGR.     UN Specification Packaging is required, which shall	Lithium battery mark shall be attached.     Marking requirements as Overpack under Section     of PI969 shall be met, if applicable.
UN Specifiation Packaging	be prepared in accordance with either of the following packagings;  1. Cells and/or batteries must be completely enclosed in inner packagings, then placed in a packaging meeting the Packing Group II performancestandards, then placed with the equipment in a strong, rigid outer packaging.  2. Cells and/or batteries must be completely enclosed in inner packagings, then placed with equipment in a packaging meeting Packing Group II performance standards.  (For passenger flight, cells and batteries must be surrounded by cushioning material that is non-combustible and non-conductive and being placed in either the metal intermediate or metal outer packaging)	UN Specification Packaging is not required, but the packaging must be capable of withstanding a 1.2m drop test.  Cells and/or batteries must be completely enclosed in inner packagings, then placed with equipment in a strong, rigid outer packaging.
Overpack	Requirements indicated on Sections 5 and 7 of the DGR must be met.	the DGR must be met.  2.(1) The packages must be secured within the overpack.  (2) The intended function of each package must not be impaired by the overpack.
Shipper Loaded ULD	Not Acceptable	Acceptable
IMP CODE	RLM	ELM



Contained in Equipment (PI970)

[Note 1] Lithium battery Class 9 label, CAO label, and lithium battery mark must not be folded on different faces of the package. [Note 2] Except for button cells installed in equipment (including circuit boards), manufacturers and subsequent distributors of cells or batteries manufactured after 30 June 2003 must make available the test summary as specified in the UN Manual of Tests and Criteria, Part III, sub-section 38.3, paragraph 38.3.5.