

HAZMATEAM



2023 LITHIUM BATTERY SHIPPING GUIDE



JANUARY 1, 2023

The following guide provides a summary of marking, labeling and paperwork requirements for shipping lithium batteries via domestic US ground (49 CFR 171-180 in effect 1-Jan-2023), international air (2023 IATA DGR, 64th Edition) and international vessel (IMDG, 40-20). Refer to the regulatory citations provided, country specific regulations and/or operator variations for complete requirements. Employees who perform any pre-transportation functions must have current training certificates. Also see: [DISCLAIMER](#)

This guide will be updated as lithium battery regulations change. Please check www.hazmateam.com for the most current version of this document.

TO GET STARTED, CLICK ON THE HOME ICON:





IS MY LITHIUM CELL OR BATTERY UN TESTED?

**WHAT SIZE IS MY LITHIUM
ION (RECHARGEABLE)
CELL/BATTERY?**

**SMALL LITHIUM ION
CELL/BATTERY
REQUIREMENTS**

**MEDIUM LITHIUM ION
CELL/BATTERY
REQUIREMENTS**

**FULLY REGULATED LITHIUM
ION CELL/BATTERY
REQUIREMENTS**

**DAMAGED OR DEFECTIVE
LITHIUM ION CELL/BATTERY
REQUIREMENTS**

**WHAT SIZE IS MY LITHIUM
METAL (NON-RECHARGEABLE)
CELL/BATTERY?**

**SMALL LITHIUM METAL
CELL/BATTERY
REQUIREMENTS**

**MEDIUM LITHIUM METAL
CELL/BATTERY
REQUIREMENTS**

**FULLY REGULATED LITHIUM
METAL CELL/BATTERY
REQUIREMENTS**

**DAMAGED OR DEFECTIVE
LITHIUM METAL CELL/BATTERY
REQUIREMENTS**

BATTERY-POWERED VEHICLES

IS MY LITHIUM CELL OR BATTERY UN TESTED?

IMPORTANT CLASSIFICATION REQUIREMENT

Except for prototype batteries, each lithium cell or battery (small, medium or fully regulated) must be of the type proven to meet the criteria in part III, sub-section 38.3 of the UN Manual of Tests and Criteria. Lithium cells and batteries are subject to these tests regardless of whether the cells used to construct the battery are of a tested type. [Refer to 49 CFR 173.185 \(a\)](#)

Lithium battery test summary – effective 1 January 2020, manufacturers and subsequent distributors of cells or batteries and equipment powered by cells and batteries manufactured after 30 June 2003 must make available the test summary as specified in the UN Manual of Tests and Criteria, Revision 6 and amend. 1, Part III, sub-section 38.3, paragraph 38.3.5.

For prototypes see [49 CFR 173.185 \(e\)](#). Prototype batteries must be shipped fully regulated.




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NAVIGATE (CLICK):



LITHIUM ION CELL & BATTERY SIZE DEFINITIONS

(Lithium Ion Cells and Batteries are Rechargeable; Also called “secondary” batteries)

SIZE & TYPE	AIR TRANSPORT	VESSEL TRANSPORT	DOMESTIC USA GROUND TRANSPORT
			
	MAXIMUM WATT HOUR RATING	MAXIMUM WATT HOUR RATING	MAXIMUM WATT HOUR RATING
SMALL CELL	20 WH	20 WH	20 WH
SMALL BATTERY	100 WH	100 WH	100 WH
MEDIUM CELL	Not applicable to air transport	Not applicable to vessel transport	60 WH
MEDIUM BATTERY	Not applicable to air transport	Not applicable to vessel transport	300 WH
FULLY REGULATED CELL	> 20 WH	> 20 WH	> 60 WH
FULLY REGULATED BATTERY	> 100 WH	> 100 WH	> 300 WH

“Hybrid” Batteries: containing both lithium ion cells and lithium metal cells must be shipped as UN 3090 or UN 3091, as appropriate. See Lithium Metal Cell & Battery Size Definitions.

Prototype Cells and Batteries (not UN tested): must be shipped Fully Regulated regardless of watt hour rating of battery/cell.

These size definitions do not apply to **UN 3171, Battery-Powered Vehicles**




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NAVIGATE (CLICK):



LITHIUM METAL CELL & BATTERY SIZE DEFINITIONS

(Lithium Metal Cells and Batteries are Non-Rechargeable; Also called “primary” batteries)

SIZE & TYPE	AIR TRANSPORT 	VESSEL TRANSPORT 	DOMESTIC USA GROUND TRANSPORT 
	MAXIMUM AGGREGATE LITHIUM CONTENT ²	MAXIMUM AGGREGATE LITHIUM CONTENT ²	MAXIMUM AGGREGATE LITHIUM CONTENT ²
SMALL CELL	1 GRAM	1 GRAM	1 GRAM
SMALL BATTERY	2 GRAMS ¹	2 GRAMS ¹	2 GRAMS ¹
MEDIUM CELL	Not applicable to air transport	Not applicable to vessel transport	5 GRAMS
MEDIUM BATTERY	Not applicable to air transport	Not applicable to vessel transport	25 GRAMS
FULLY REGULATED CELL	> 1 GRAM	> 1 GRAM	> 5 GRAMS
FULLY REGULATED BATTERY	> 2 GRAMS	> 2 GRAMS	> 25 GRAMS

“Hybrid” Batteries: containing both lithium ion cells and lithium metal cells must be shipped as UN 3090 or UN 3091, as appropriate. Note 1 - A small “hybrid” battery may not contain more than 1.5 g of lithium metal contained within all lithium metal cells and the total capacity of all lithium ion cells contained in the battery shall not exceed 10 Wh. “Hybrid” batteries are not externally charged.

Prototype Cells and Batteries (not UN tested): must be shipped Fully Regulated regardless of lithium metal content per battery/cell.

Note 2 - **Aggregate lithium content:** the sum of the grams of lithium content contained by the cells comprising a battery.










These size definitions do not apply to **UN 3171, Battery-Powered Vehicles**

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NAVIGATE (CLICK):



SMALL LITHIUM ION CELL/BATTERY REQUIREMENTS

PACKAGE OF SMALL LITHIUM ION CELLS/BATTERIES	MODE (CLICK):		
BATTERIES ONLY			
BATTERIES CONTAINED IN EQUIPMENT * (INSTALLED)			
BATTERIES PACKED WITH EQUIPMENT*			




- *Equipment* means the device or apparatus for which the lithium cells or batteries will provide electrical power for its operation

NAVIGATE (CLICK):



[WHAT SIZE IS MY LITHIUM ION
\(RECHARGEABLE\)
CELL/BATTERY?](#)

MEDIUM¹ LITHIUM ION CELL/BATTERY REQUIREMENTS

PACKAGE OF MEDIUM LITHIUM ION CELLS/BATTERIES	MODE (CLICK):
BATTERIES ONLY	
BATTERIES CONTAINED IN EQUIPMENT ² (INSTALLED)	
BATTERIES PACKED WITH EQUIPMENT ²	

***NOTES:**

1) MEDIUM BATTERIES IS A DESIGNATION FOR GROUND DOMESTIC USA ONLY










2) *Equipment* means the device or apparatus for which the lithium cells or batteries will provide electrical power for its operation

NAVIGATE (CLICK):



[WHAT SIZE IS MY LITHIUM ION
\(RECHARGEABLE\)
CELL/BATTERY?](#)

FULLY REGULATED LITHIUM ION CELL/BATTERY REQUIREMENTS

PACKAGE OF FULLY REGULATED LITHIUM ION CELLS/BATTERIES	MODE (CLICK):		
BATTERIES ONLY			
BATTERIES CONTAINED IN EQUIPMENT * (INSTALLED)			
BATTERIES PACKED WITH EQUIPMENT *			










- *Equipment* means the device or apparatus for which the lithium cells or batteries will provide electrical power for its operation

NAVIGATE (CLICK):



[WHAT SIZE IS MY LITHIUM ION
\(RECHARGEABLE\)
CELL/BATTERY?](#)

SMALL LITHIUM METAL CELL/BATTERY REQUIREMENTS

PACKAGE OF SMALL LITHIUM METAL CELLS/BATTERIES	MODE (CLICK):		
BATTERIES ONLY			
BATTERIES CONTAINED IN EQUIPMENT * (INSTALLED)			
BATTERIES PACKED WITH EQUIPMENT *			

- *Equipment* means the device or apparatus for which the lithium cells or batteries will provide electrical power for its operation




NAVIGATE (CLICK):



[WHAT SIZE IS MY LITHIUM METAL
\(NON-RECHARGEABLE\)
CELL/BATTERY?](#)

MEDIUM¹ LITHIUM METAL CELL/BATTERY REQUIREMENTS

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PACKAGE OF MEDIUM LITHIUM METAL CELLS/BATTERIES	MODE (CLICK):
BATTERIES ONLY	
BATTERIES CONTAINED IN EQUIPMENT ² (INSTALLED)	
BATTERIES PACKED WITH EQUIPMENT ²	

NOTES:

1) MEDIUM BATTERIES IS A DESIGNATION FOR GROUND DOMESTIC USA ONLY;










2) *Equipment* means the device or apparatus for which the lithium cells or batteries will provide electrical power for its operation

NAVIGATE (CLICK):



[WHAT SIZE IS MY LITHIUM METAL
\(NON-RECHARGEABLE\)
CELL/BATTERY?](#)

FULLY REGULATED LITHIUM METAL CELL/BATTERY REQUIREMENTS

PACKAGE OF FULLY REGULATED LITHIUM METAL CELLS/BATTERIES	MODE (CLICK):		
BATTERIES ONLY			
BATTERIES CONTAINED IN EQUIPMENT (INSTALLED)			
BATTERIES PACKED WITH EQUIPMENT			

NAVIGATE (CLICK):



[WHAT SIZE IS MY LITHIUM
METAL \(NON-RECHARGEABLE\)
CELL/BATTERY?](#)

BATTERY-POWERED VEHICLES




“Battery-Powered Vehicles” are self-propelled apparatus designed to carry one or more persons or goods. In this case some parts of the vehicle may be detached from its frame to fit into the packaging. Reference: 49 CFR 172.102, SP 134.

The information provided in this guide applies to vehicles powered only by a lithium ion or lithium metal battery. If the vehicle is powered by other battery types or fuels, refer to 49 CFR 173.220, IMDG SP 388 & 962 or IATA PI 952, as applicable.

The battery must be UN 38.3 tested and installed in the vehicle. The battery must not be damaged or defective.

If battery is not installed, must ship as “UN 3091, Lithium Metal Batteries Packed with Equipment” or “UN 3481, Lithium Ion Batteries Packed with Equipment”, as applicable.

There is no battery size designation (small, medium or fully regulated) for these entries.

BATTERY-POWERED VEHICLE	MODE (CLICK):		
<p>Examples:</p> <ul style="list-style-type: none"> • Bicycles (pedal cycles with electric motor) • Wheelchairs • Lawn tractors • Electrically powered cars, scooters or motorcycles • Self-propelled farming or construction equipment • Robots used to move goods 			

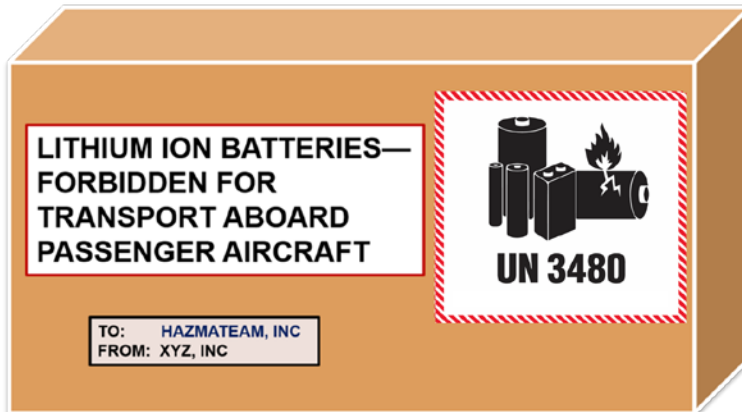
NAVIGATE (CLICK):



SMALL LITHIUM ION BATTERIES – NO EQUIPMENT



- **LITHIUM ION BATTERIES, UN 3480**
- GROUND & VESSEL TRANSPORT
- BATTERY SIZE: SMALL ([UN Tested](#))
- NO EQUIPMENT
- DECLARATION/SHIPPING PAPER: NO
- Limit: 30 KG GROSS WT



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OR



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REFERENCE:

GROUND: 49 CFR 173.185 (c)(1)(iii) & (c)(3)

VESSEL: IMDG CODE, CHAPTER 3.3, SP 188

NAVIGATE (CLICK):



SMALL LITHIUM ION BATTERIES PACKED WITH EQUIPMENT



NET WT OF SMALL BATTERIES PER PACKAGE IS NO MORE THAN 5 KG

- **LITHIUM ION BATTERIES PACKED WITH EQUIPMENT, UN 3481**
- GROUND & VESSEL TRANSPORT
- BATTERY SIZE: SMALL ([UN Tested](#))
- DECLARATION/SHIPPING PAPER: NO
- EQUIPMENT AND BATTERY IN SAME PACKAGE. BATTERY NOT INSTALLED.
- [CLICK HERE IF MORE THAN 5 KG NET PER PKG](#)



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REFERENCE:

GROUND: 49 CFR 173.185 (c)(1)(iii) & (c)(3)

VESSEL: IMDG CODE, CHAPTER 3.3, SP 188

NAVIGATE (CLICK):



SMALL LITHIUM ION BATTERIES PACKED WITH EQUIPMENT



NET WT OF SMALL BATTERIES PER PACKAGE IS GREATER THAN 5 KG

- **LITHIUM ION BATTERIES PACKED WITH EQUIPMENT, UN 3481**
- GROUND & VESSEL TRANSPORT
- BATTERY SIZE: SMALL ([UN Tested](#))
- DECLARATION/SHIPPING PAPER: NO
- EQUIPMENT AND BATTERY IN SAME PACKAGE. BATTERY NOT INSTALLED.
- [CLICK HERE IF NO MORE THAN 5 KG NET PER PACKAGE](#)



OR



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REFERENCE:

GROUND: 49 CFR 173.185 (c)(1)(iii) & (c)(3)

VESSEL: IMDG CODE, CHAPTER 3.3, SP 188

NAVIGATE (CLICK):





SMALL LITHIUM ION BATTERIES CONTAINED IN EQUIPMENT

NO MORE THAN 4 CELLS OR 2 BATTERIES CONTAINED IN EQUIPMENT PER PACKAGE

NET WT OF SMALL BATTERIES PER PACKAGE IS NO MORE THAN 5 KG

- **LITHIUM ION BATTERIES CONTAINED IN EQUIPMENT, UN 3481**
- GROUND & VESSEL TRANSPORT
- BATTERY SIZE: SMALL ([UN Tested](#))
- DECLARATION/SHIPPING PAPER: NO
- BATTERY INSTALLED IN EQUIPMENT.
- [CLICK HERE IF MORE THAN 5 KG NET PER PACKAGE](#)
- [CLICK HERE IF MORE THAN 4 CELLS OR 2 BATTERIES INSTALLED](#)
- [CLICK HERE IF LITHIUM ION BUTTON CELLS INSTALLED](#)
- [CLICK HERE FOR ACTIVATED TRACKING DEVICE CONTAINING A LITHIUM ION BATTERY](#)



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IF MORE THAN 2 PACKAGES PER CONSIGNMENT.

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REFERENCE:

GROUND: 49 CFR 173.185 (c)(1)(iii) & (c)(3)

VESSEL: IMDG CODE, CHAPTER 3.3, SP 188

NAVIGATE (CLICK):



SMALL LITHIUM ION BUTTON CELLS CONTAINED IN EQUIPMENT

NET WT OF SMALL BATTERIES PER PACKAGE IS NO MORE THAN 5 KG



- **LITHIUM ION BATTERIES CONTAINED IN EQUIPMENT, UN 3481**
- GROUND & VESSEL TRANSPORT
- BATTERY SIZE: SMALL (UN Tested)
- **BUTTON CELL INSTALLED IN EQUIPMENT**
- DECLARATION/SHIPPING PAPER: NO
- BUTTON CELL INSTALLED IN EQUIPMENT
- NO LIMIT TO THE NUMBER OF BUTTON CELLS INSTALLED, MUST NOT EXCEED 5 KG NET PER PKG
- [CLICK HERE IF SMALL LITHIUM ION BATTERY OTHER THAN BUTTON CELL INSTALLED](#)
- [CLICK HERE FOR ACTIVATED TRACKING DEVICE CONTAINING A LITHIUM ION BATTERY](#)



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Button cell or battery means a round small cell or battery when the overall height is less than the diameter.

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REFERENCE:

GROUND: 49 CFR 173.185 (c)(1)(iii) & (c)(3)

VESSEL: IMDG CODE, CHAPTER 3.3, SP 188

NAVIGATE (CLICK):





SMALL LITHIUM ION BATTERIES CONTAINED IN EQUIPMENT

MORE THAN 4 CELLS OR 2 BATTERIES CONTAINED IN EQUIPMENT PER PACKAGE

NET WT OF BATTERIES PER PACKAGE NO MORE THAN 5 KG

- **LITHIUM ION BATTERIES CONTAINED IN EQUIPMENT, UN 3481**
- GROUND & VESSEL TRANSPORT
- BATTERY SIZE: SMALL ([UN Tested](#))
- DECLARATION/SHIPPING PAPER: NO
- BATTERY INSTALLED IN EQUIPMENT.
- [CLICK HERE IF MORE THAN 5 KG NET PACKAGE](#)
- [CLICK HERE IF NO MORE THAN 4 CELLS OR 2 BATTERIES CONTAINED IN EQUIPMENT PER PACKAGE](#)
- [CLICK HERE FOR ACTIVATED TRACKING DEVICE CONTAINING A LITHIUM ION BATTERY](#)



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REFERENCE:

GROUND: 49 CFR 173.185 (c)(1)(iii) & (c)(3)

VESSEL: IMDG CODE, CHAPTER 3.3, SP 188

NAVIGATE (CLICK):



SMALL LITHIUM ION BATTERIES CONTAINED IN EQUIPMENT



NET WT OF BATTERIES PER PACKAGE GREATER THAN 5 KG

- **LITHIUM ION BATTERIES CONTAINED IN EQUIPMENT, UN 3481**
- GROUND & VESSEL TRANSPORT
- BATTERY SIZE: SMALL ([UN Tested](#))
- DECLARATION/SHIPPING PAPER: NO
- BATTERY INSTALLED IN EQUIPMENT.
- [CLICK HERE IF MORE THAN 4 CELLS OR 2 BATTERIES INSTALLED AND NO MORE THAN 5 KG PER PKG](#)
- [CLICK HERE IF NO MORE THAN 4 CELLS OR 2 BATTERIES INSTALLED AND NO MORE THAN 5 KG PER PKG](#)
- [CLICK HERE FOR ACTIVATED TRACKING DEVICE CONTAINING A LITHIUM ION BATTERY](#)



OR



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REFERENCE:

GROUND: 49 CFR 173.185 (c)(1)(iii) & (c)(3)

VESSEL: IMDG CODE, CHAPTER 3.3, SP 188

NAVIGATE (CLICK):



SMALL LITHIUM ION BATTERIES – NO EQUIPMENT (PI 965 SECTION IB)

- **LITHIUM ION BATTERIES, UN 3480**
- AIR TRANSPORT
- NO EQUIPMENT
- PACKAGE CONTAINS ≤ 10 KG net, SMALL LITHIUM ION BATTERIES ([UN Tested](#))
- DECLARATION/SHIPPING PAPER & ER INFO (SDS or ERG Page): YES
- STATE OF CHARGE MUST NOT EXCEED 30 % OF RATED DESIGN CAPACITY



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NET QTY (KG OF BATTERIES) MUST JIVE WITH NET QTY DESCRIBED ON DECLARATION

**PI 965 SECTION II WAS
ELIMINATED 1-JAN-2022**

**SMALL UN 3480 MUST BE
SHIPPED PI 965 SECTION IB
OR PI 965 SECTION IA**



**CELLS AND BATTERIES MUST
NOT BE PACKED IN THE
SAME OUTER PACKAGING
WITH CLASS 1 (OTHER THAN
1.4S), DIV 2.1, CLASS 3, DIV
4.1 or DIV 5.1**

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REFERENCE:

DOMESTIC USA: 49 CFR 173.185 (c)(4)

INTERNATIONAL AIR: IATA PACKING INSTRUCTION 965, SECTION IB

NAVIGATE (CLICK):



SMALL LITHIUM ION BATTERIES PACKED WITH EQUIPMENT



- **LITHIUM ION BATTERIES PACKED WITH EQUIPMENT, UN 3481**
- Air TRANSPORT
- BATTERY SIZE: SMALL ([UN Tested](#))
- **LIMIT: NET WT OF BATTERIES PER PACKAGE IS NO MORE THAN 5 KG**
- **NO MORE THAN THE MINIMUM NUMBER OF BATTERIES TO POWER THE EQUIPMENT PLUS TWO SPARES.**
- DECLARATION/SHIPPING PAPER: NO
- EQUIPMENT AND BATTERY IN SAME PACKAGE. BATTERY NOT INSTALLED.



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REFERENCE:

DOMESTIC USA: 49 CFR 173.185 (c)(3), (c)(4)

INTERNATIONAL AIR: IATA, PACKING INSTRUCTION 966, SECTION II

NAVIGATE (CLICK):



SMALL LITHIUM ION BATTERIES CONTAINED IN EQUIPMENT

NO MORE THAN 4 CELLS OR 2 BATTERIES CONTAINED IN EQUIPMENT PER PACKAGE



- **LITHIUM ION BATTERIES CONTAINED IN EQUIPMENT, UN 3481**
- Air TRANSPORT (Battery installed)
- BATTERY SIZE: SMALL ([UN Tested](#))
- **LIMIT: NET WT OF BATTERIES PER PACKAGE IS NO MORE THAN 5 KG**
- **LIMIT:** NO MORE THAN 4 LITHIUM ION CELLS OR 2 LITHIUM ION BATTERIES ARE INSTALLED OR IF BUTTON CELL BATTERIES ARE INSTALLED.
- DECLARATION/SHIPPING PAPER: NO
- [CLICK HERE IF MORE THAN 4 CELLS OR 2 BATTERIES INSTALLED \(OTHER THAN BUTTON CELLS\)](#)
- [CLICK HERE IF SHIPPING BUTTON CELLS INSTALLED IN EQUIPMENT](#)
- [CLICK HERE FOR ACTIVATED TRACKING DEVICE CONTAINING A LITHIUM ION BATTERY](#)



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IF SHIPPING ONE OR TWO PACKAGES
ACCORDING TO PI 967, SECTION II

IF SHIPPING MORE THAN TWO PACKAGES
ACCORDING TO PI 967, SECTION II

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REFERENCE:

DOMESTIC USA: 49 CFR 173.185 (c)(3), (c)(4)

INTERNATIONAL AIR: IATA, PACKING INSTRUCTION 967, SECTION II

NAVIGATE (CLICK):

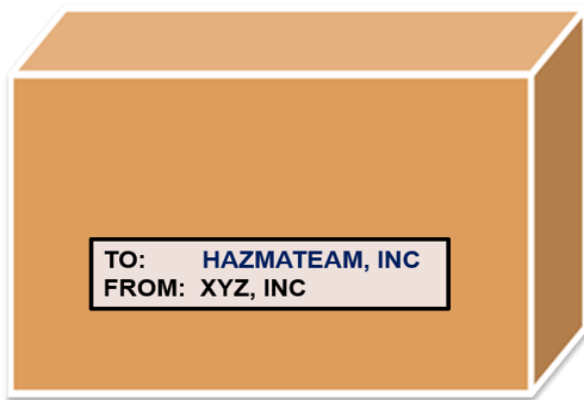


SMALL LITHIUM ION BUTTON CELLS CONTAINED IN EQUIPMENT



NO MORE THAN 5 KG NET QTY OF BUTTON CELLS INSTALLED PER PKG

- **LITHIUM ION BATTERIES CONTAINED IN EQUIPMENT, UN 3481**
- AIR TRANSPORT
- BATTERY SIZE: SMALL (UN Tested)
- **BUTTON CELL INSTALLED IN EQUIPMENT**
- DECLARATION/SHIPPING PAPER: NO
- BUTTON CELL INSTALLED IN EQUIPMENT
- NO LIMIT TO THE NUMBER OF BUTTON CELLS INSTALLED, CANNOT EXCEED 5 KG NET PER PACKAGE
- [CLICK HERE IF SMALL LITHIUM ION BATTERIES OTHER THAN BUTTON CELLS CONTAINED IN EQUIPMENT](#)
- [CLICK HERE FOR ACTIVATED TRACKING DEVICE CONTAINING A LITHIUM ION BATTERY](#)



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Button cell or battery means a round small cell or battery when the overall height is less than the diameter.

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REFERENCE:

DOMESTIC USA: 49 CFR 173.185 (c)(3), (c)(4)

INTERNATIONAL AIR: IATA, PACKING INSTRUCTION 967, SECTION II

NAVIGATE (CLICK):



SMALL LITHIUM ION BATTERIES CONTAINED IN EQUIPMENT

MORE THAN 4 CELLS OR 2 BATTERIES CONTAINED IN EQUIPMENT PER PACKAGE



- **LITHIUM ION BATTERIES CONTAINED IN EQUIPMENT, UN 3481**
- Air TRANSPORT
- BATTERY SIZE: SMALL ([UN Tested](#))
- **LIMIT: NET WT OF BATTERIES PER PACKAGE IS NO MORE THAN 5 KG**
- DECLARATION/SHIPPING PAPER: NO
- BATTERY IS INSTALLED.
- [CLICK HERE IF NO MORE THAN 4 CELLS OR 2 BATTERIES CONTAINED IN EQUIPMENT PER PACKAGE](#)
- [CLICK HERE FOR ACTIVATED TRACKING DEVICE CONTAINING A LITHIUM ION BATTERY](#)



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REFERENCE:

DOMESTIC USA: 49 CFR 173.185 (c)(3), (c)(4))

INTERNATIONAL AIR: IATA, PACKING INSTRUCTION 967, SECTION II

NAVIGATE (CLICK):

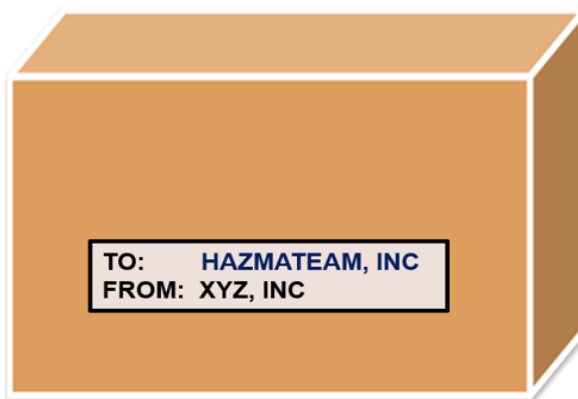


TRACKING DEVICE WITH A SMALL LITHIUM ION BATTERY CONTAINED IN EQUIPMENT

TRACKING DEVICE (SUCH AS A DATA LOGGER) ACTIVATED DURING AIR TRANSPORT



- **LITHIUM ION BATTERIES CONTAINED IN EQUIPMENT, UN 3481**
- AIR TRANSPORT
- BATTERY SIZE: SMALL; BATTERY/CELL INSTALLED
- BATTERY MUST BE UN 38.3 TESTED ([UN Tested](#))
- DECLARATION/SHIPPING PAPER: NO
- **THE EQUIPMENT MUST BE IN USE OR INTENDED FOR USE DURING TRANSPORTATION, NOT AS CARGO.**
- PACKAGES CONTAINING COVID-19 PHARMACEUTICALS ACCOMPANIED BY DATA LOGGERS AND/OR CARGO TRACKING DEVICES CONTAINING LITHIUM ION BATTERIES ARE NOT SUBJECT TO THE MARKING AND DOCUMENTATION REQUIREMENTS OF SECTION II OF PACKING INSTRUCTION 967.
- PACKAGES ACCOMPANIED BY DATA LOGGERS AND/OR CARGO TRACKING DEVICES (WITHOUT COVID-19 PHARMACEUTICALS) CONTAINING LITHIUM ION BATTERIES ARE NOT SUBJECT TO THE MARKING AND DOCUMENTATION REQUIREMENTS OF SECTION II OF PACKING INSTRUCTION 967 **PROVIDED PRIOR ARRANGEMENTS HAVE BEEN MADE WITH THE OPERATOR (THE AIRLINE).** IF ARRANGEMENTS HAVE NOT BEEN MADE, MUST SHIP PER PI 967 SECTION II ([CLICK HERE FOR PI 967 SECTION II](#)).
- DEVICE IS NOT CAPABLE OF GENERATING A DANGEROUS EVOLUTION OF HEAT. WHEN ACTIVE, THESE DEVICES MUST MEET STANDARDS FOR ELECTROMAGNETIC RADIATION TO ENSURE THAT THE OPERATION OF THE DEVICE DOES NOT INTERFERE WITH AIRCRAFT SYSTEMS. THE DEVICES MUST NOT BE CAPABLE OF EMITTING DISTURBING SIGNALS (SUCH AS BUZZING ALARMS, STROBE LIGHTS).



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REFERENCE:

DOMESTIC USA: 49 CFR 173.14

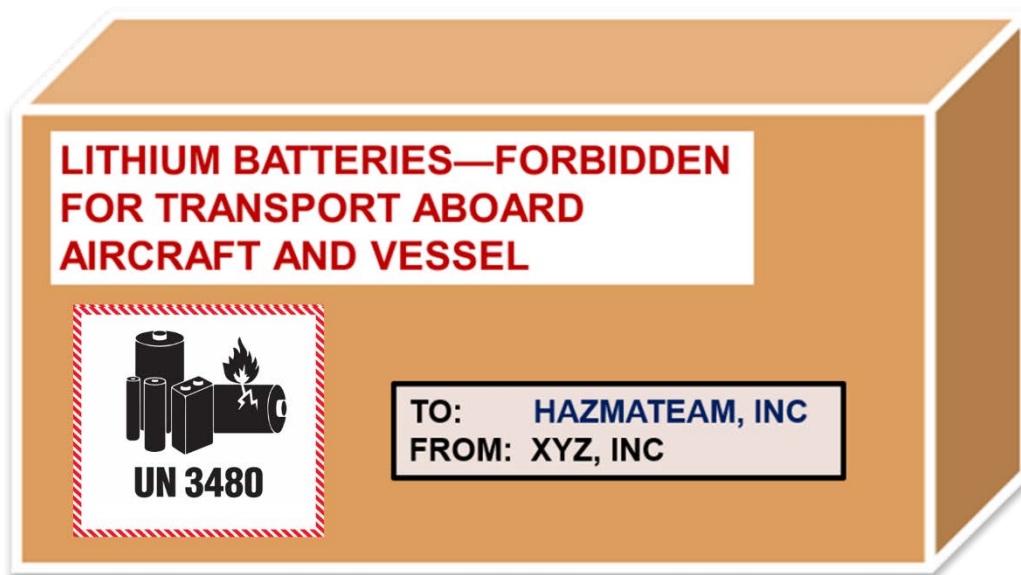
INTERNATIONAL AIR: IATA, PACKING INSTRUCTION 967, SECTION II AND SPECIAL PROVISION A220

NAVIGATE (CLICK):



MEDIUM LITHIUM ION BATTERIES – NO EQUIPMENT

- **LITHIUM ION BATTERIES, UN 3480**
- GROUND ONLY --- DOMESTIC USA ONLY
- BATTERY SIZE: MEDIUM ([UN Tested](#))
- NO EQUIPMENT
- DECLARATION/SHIPPING PAPER: NO
- Limit: 30 KG GROSS WT



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REFERENCE:

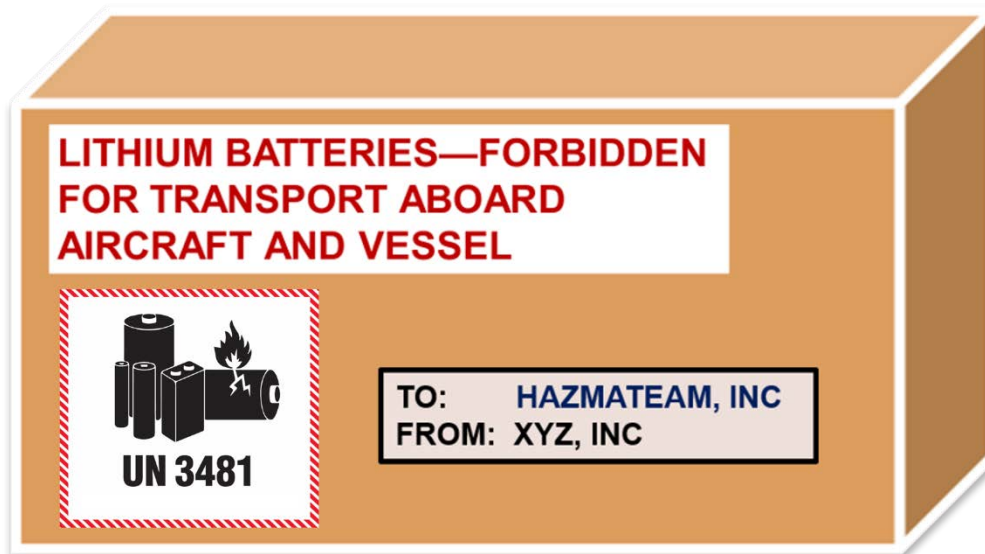
GROUND: 49 CFR 173.185 (c)(1)(iv), (vi) & (c)(3)

NAVIGATE (CLICK):



MEDIUM LITHIUM ION BATTERIES PACKED WITH EQUIPMENT

- **LITHIUM ION BATTERIES PACKED WITH EQUIPMENT, UN 3481**
- GROUND ONLY --- DOMESTIC USA ONLY
- BATTERY SIZE: MEDIUM ([UN Tested](#))
- DECLARATION/SHIPPING PAPER: NO
- EQUIPMENT AND BATTERY IN SAME PACKAGE. BATTERY NOT INSTALLED.



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REFERENCE:

GROUND: 49 CFR 173.185 (c)(1)(iv) & (c)(3)

NAVIGATE (CLICK):

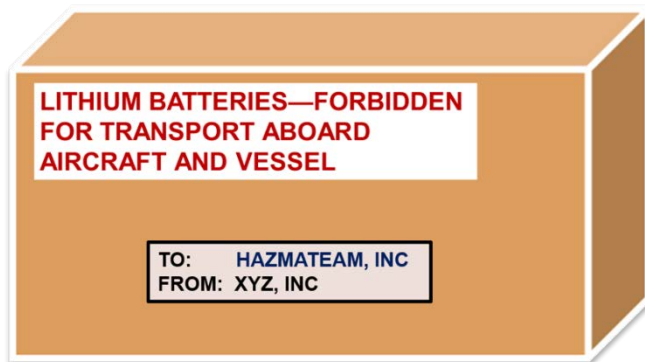


MEDIUM LITHIUM ION BATTERIES CONTAINED IN EQUIPMENT

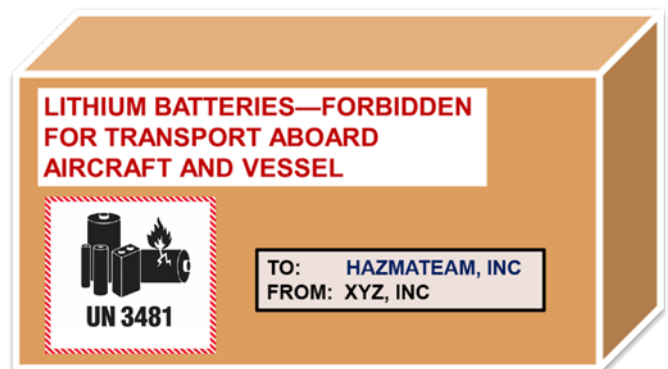
NO MORE THAN 4 CELLS OR 2 BATTERIES INSTALLED PER PACKAGE



- **LITHIUM ION BATTERIES CONTAINED IN EQUIPMENT, UN 3481**
- GROUND ONLY --- DOMESTIC USA ONLY
- BATTERY SIZE: MEDIUM ([UN Tested](#))
- NO MORE THAN 4 CELLS OR 2 BATTERIES INSTALLED IN EQUIPMENT OR BUTTON CELLS INSTALLED
- DECLARATION/SHIPPING PAPER: NO
- BATTERY INSTALLED IN EQUIPMENT.
- [CLICK HERE FOR MORE THAN 4 CELLS OR 2 BATTERIES CONTAINED IN EQUIPMENT PER PACKAGE](#)
- [CLICK HERE FOR ACTIVATED TRACKING DEVICE CONTAINING A LITHIUM ION BATTERY](#)



Address label optional



Address label optional



IF MORE THAN 2 PACKAGES PER CONSIGNMENT.

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REFERENCE:

GROUND: 49 CFR 173.185 (c)(1)(iv) & (c)(3)

NAVIGATE (CLICK):

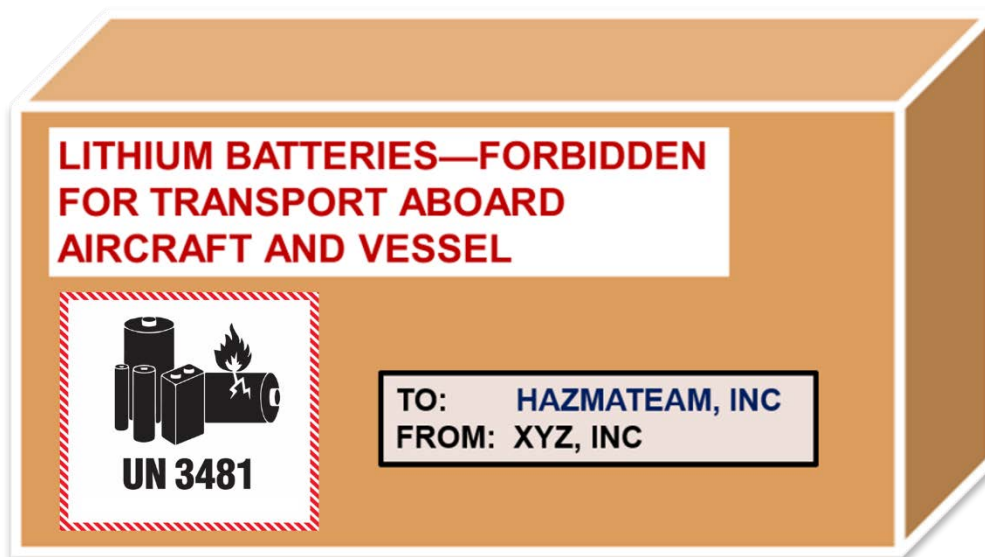


MEDIUM LITHIUM ION BATTERIES CONTAINED IN EQUIPMENT

MORE THAN 4 CELLS OR 2 BATTERIES CONTAINED IN EQUIPMENT PER PACKAGE



- **LITHIUM ION BATTERIES CONTAINED IN EQUIPMENT, UN 3481**
- GROUND ONLY --- DOMESTIC USA ONLY
- BATTERY SIZE: MEDIUM ([UN Tested](#))
- DECLARATION/SHIPPING PAPER: NO
- BATTERY INSTALLED IN EQUIPMENT.
- [CLICK HERE IF NO MORE THAN 4 CELLS OR 2 BATTERIES CONTAINED IN EQUIPMENT PER PACKAGE](#)
- [CLICK HERE FOR ACTIVATED TRACKING DEVICE CONTAINING A LITHIUM ION BATTERY](#)



Address label optional

© HAZMATEAM, INC

REFERENCE:

GROUND: 49 CFR 173.185 (c)(1)(iv) & (c)(3)

NAVIGATE (CLICK):



FULLY REGULATED LITHIUM ION BATTERIES – NO EQUIPMENT

- **LITHIUM ION BATTERIES, UN 3480**
- GROUND AND VESSEL TRANSPORT
- BATTERY SIZE: FULLY REGULATED ([UN Tested](#))
- NO EQUIPMENT
- DECLARATION/SHIPPING PAPER & ER INFO (SDS or ERG Page): YES
- Limit: REFER TO PACKAGE CLOSURE INSTRUCTION



Address label: IMDG optional; DOT see 49 CFR 172.301(d)

© HAZMATEAM, INC

REFERENCE:

GROUND: 49 CFR 172.301, 172.447 & 173.185

VESSEL: IMDG CODE, CHAPTER 5.2, PI P903

NAVIGATE (CLICK):



FULLY REGULATED LITHIUM ION BATTERIES PACKED WITH EQUIPMENT

- **LITHIUM ION BATTERIES PACKED WITH EQUIPMENT, UN 3481**
- GROUND & VESSEL TRANSPORT
- BATTERY SIZE: FULLY REGULATED ([UN Tested](#))
- DECLARATION/SHIPPING PAPER & ER INFO (SDS or ERG Page): YES
- EQUIPMENT AND BATTERY IN SAME PACKAGE. BATTERY NOT INSTALLED.
- Limit: REFER TO PACKAGE CLOSURE INSTRUCTION



Address label: IMDG optional; DOT see 49 CFR 172.301(d)

© HAZMATEAM, INC

REFERENCE:

GROUND: 49 CFR 172.301, 172.400 (b) & 173.185

VESSEL: IMDG CODE, CHAPTER 5.2, PI P903

NAVIGATE (CLICK):



FULLY REGULATED LITHIUM ION BATTERIES CONTAINED IN EQUIPMENT

- **LITHIUM ION BATTERIES CONTAINED IN EQUIPMENT, UN 3481**
- GROUND & VESSEL TRANSPORT
- BATTERY SIZE: FULLY REGULATED ([UN Tested](#))
- DECLARATION/SHIPPING PAPER & ER INFO (SDS or ERG Page): YES
- BATTERY INSTALLED IN EQUIPMENT
- [CLICK HERE FOR ACTIVATED TRACKING DEVICE CONTAINING A LITHIUM ION BATTERY](#)



Address label: IMDG optional; DOT see 49 CFR 172.301(d)

© HAZMATEAM, INC

REFERENCE:

GROUND: 49 CFR 172.301, 172.447 & 173.185

SPEC PKG NOT REQUIRED: 49 CFR 173.185 (b)(4)

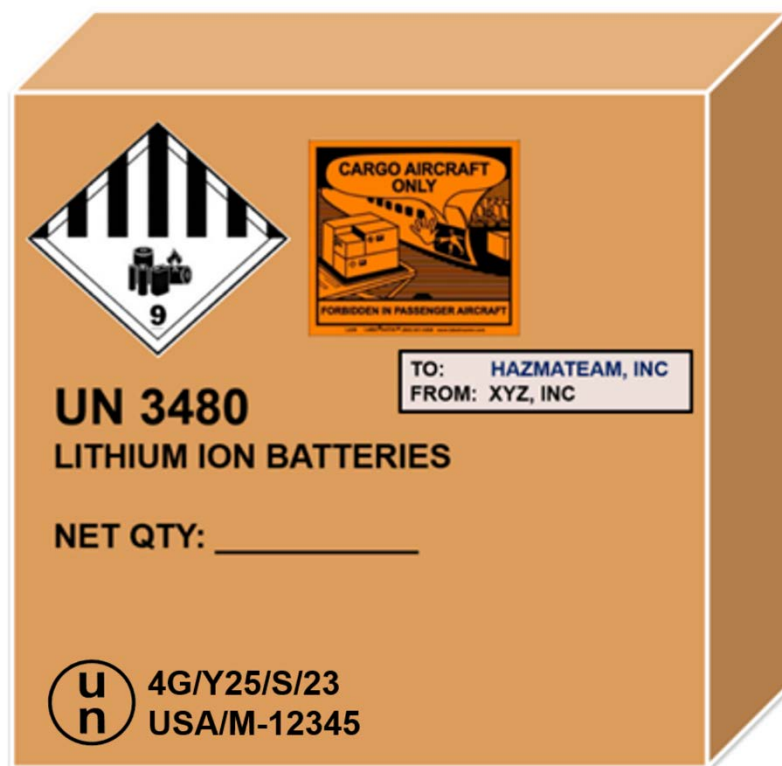
VESSEL: IMDG CODE, CHAPTER 5.2, PI P903

NAVIGATE (CLICK):



FULLY REGULATED LITHIUM ION BATTERIES – NO EQUIPMENT (PI 965 SECTION IA)

- **LITHIUM ION BATTERIES, UN 3480**
- AIR TRANSPORT
- NO EQUIPMENT
- BATTERY SIZE: FULLY REGULATED ([UN Tested](#))
- **BATTERY STATE OF CHARGE MUST NOT EXCEED 30 % OF RATED DESIGN CAPACITY**
- DECLARATION/SHIPPING PAPER & ER INFO (SDS or ERG Page): YES
- FORBIDDEN FOR PASSENGER AIR; MAX NET QTY/PKG CARGO AIRCRAFT = 35 KG
- REFER TO PACKAGE CLOSURE INSTRUCTION



Address label mandatory



NET QTY
(KG OF BATTERIES)
MUST JIVE WITH
NET QTY
DESCRIBED ON
DECLARATION

CELLS AND BATTERIES
MUST NOT BE
PACKED IN THE SAME
OUTER PACKAGING
WITH CLASS 1 (OTHER
THAN 1.4S), DIV 2.1,
CLASS 3, DIV 4.1 or
DIV 5.1

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REFERENCE:

DOMESTIC USA: 49 CFR 172.301 & 172.447, 172.402(c), 173.185

INTERNATIONAL AIR: IATA 7.1.4.1, 7.2.3.1, PI 965 SECTION IA

NAVIGATE (CLICK):



FULLY REGULATED LITHIUM ION BATTERIES PACKED WITH EQUIPMENT



- **LITHIUM ION BATTERIES PACKED WITH EQUIPMENT, UN 3481**
- AIR TRANSPORT
- BATTERY SIZE: FULLY REGULATED ([UN Tested](#))
- EQUIPMENT AND BATTERY IN SAME PACKAGE. BATTERY NOT INSTALLED.
- DECLARATION/SHIPPING PAPER & ER INFO (SDS or ERG Page): YES
- MAX NET QTY/PKG PASSENGER AIRCRAFT= 5 KG; MAX NET QTY/PKG CARGO AIRCRAFT = 35 KG
- REFER TO PACKAGE CLOSURE INSTRUCTION



Address label mandatory



ADD THIS LABEL IF PACKAGE CONTAINS
GREATER THAN 5 KG NET LITHIUM ION
BATTERIES (35 KG MAX)

NET QTY (KG OF BATTERIES) MUST JIVE WITH
NET QTY DESCRIBED ON DECLARATION



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REFERENCE:

DOMESTIC USA: 49 CFR 172.301 & 172.400(b), 172.402(c), 173.185
INTERNATIONAL AIR: IATA 7.1.4.1, 7.2.3.1, PI 966 SECTION I

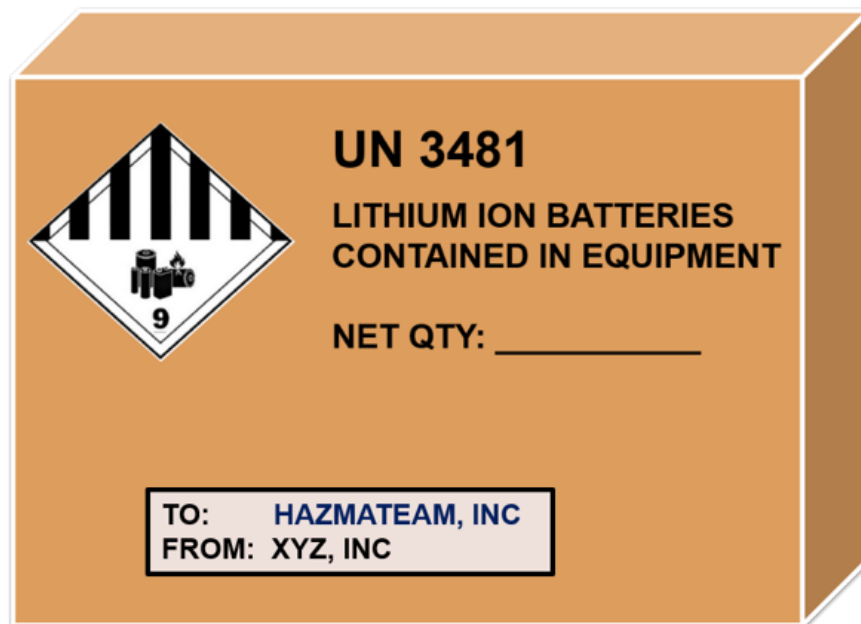
NAVIGATE (CLICK):



FULLY REGULATED LITHIUM ION BATTERIES CONTAINED IN EQUIPMENT



- **LITHIUM ION BATTERIES CONTAINED IN EQUIPMENT, UN 3481**
- AIR TRANSPORT
- BATTERY SIZE: FULLY REGULATED ([UN Tested](#))
- DECLARATION/SHIPPING PAPER & ER INFO (SDS or ERG Page): YES
- BATTERY INSTALLED IN EQUIPMENT
- MAX NET PER PKG PASSENGER AIR = 5 KG; MAX NET QTY PER PKG CARGO AIRCRAFT = 35 KG



Address label mandatory



ADD THIS LABEL IF PACKAGE CONTAINS
GREATER THAN 5 KG NET LITHIUM ION
BATTERIES (35 KG MAX)

NET QTY (KG OF BATTERIES) MUST JIVE
WITH NET QTY DESCRIBED ON DECLARATION

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REFERENCE:

DOMESTIC USA: 49 CFR 172.301 & 172.400(b), 172.402(c)

SPEC PKG NOT REQUIRED: 49 CFR 173.185 (b)(4)

INTERNATIONAL AIR: IATA 7.1.4.1, 7.2.3.1, PI 967 SECTION I



NAVIGATE (CLICK):

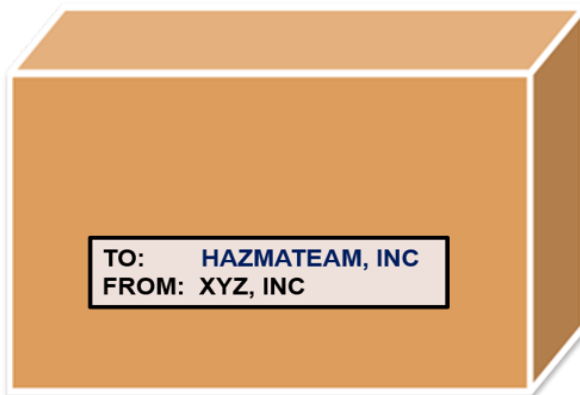


TRACKING DEVICE WITH A LITHIUM ION BATTERY CONTAINED IN EQUIPMENT



TRACKING DEVICE (SUCH AS A DATA LOGGER) ACTIVATED DURING GROUND OR VESSEL TRANSPORT

- **LITHIUM ION BATTERIES CONTAINED IN EQUIPMENT, UN 3481**
- GROUND AND VESSEL TRANSPORT
- BATTERY SIZE: ALL SIZES
- BATTERY/CELL INSTALLED
- BATTERY MUST BE UN 38.3 TESTED ([UN Tested](#))
- DECLARATION/SHIPPING PAPER: NO
- **THE EQUIPMENT MUST BE IN USE OR INTENDED FOR USE DURING TRANSPORTATION, NOT AS CARGO.**
- DEVICE IS NOT CAPABLE OF GENERATING A DANGEROUS EVOLUTION OF HEAT. WHEN ACTIVE, THESE DEVICES MUST MEET STANDARDS FOR ELECTROMAGNETIC RADIATION TO ENSURE THAT THE OPERATION OF THE DEVICE DOES NOT INTERFERE WITH AIRCRAFT SYSTEMS. THE DEVICES MUST NOT BE CAPABLE OF EMITTING DISTURBING SIGNALS (SUCH AS BUZZING ALARMS, STROBE LIGHTS).
- FOR VESSEL TRANSPORT, TRACKING DEVICES MUST BE SECURELY INSTALLED AND MUST BE OF A CERTIFIED SAFE TYPE FOR THE HAZARDOUS MATERIALS THAT WILL BE CARRIED WITHIN THE FREIGHT CONTAINER OR TRANSPORT VEHICLE IN WHICH SUCH AS DEVICE OR EQUIPMENT IS INSTALLED.



Address label optional

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REFERENCE:

DOMESTIC USA: 49 CFR 173.14, 176.76 (a)(9)

INTERNATIONAL VESSEL: IMDG PI 903, IMDG SP 188

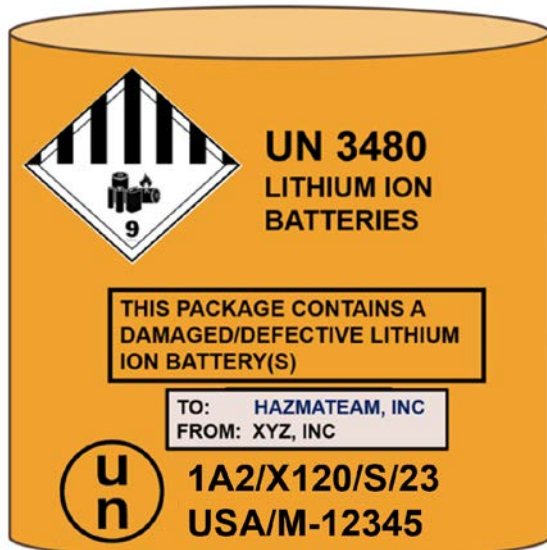
NAVIGATE (CLICK):



DAMAGED/DEFECTIVE LITHIUM ION BATTERIES SHIPPED GROUND & VESSEL

LITHIUM CELLS OR BATTERIES, THAT HAVE BEEN DAMAGED OR IDENTIFIED BY THE MANUFACTURER AS BEING DEFECTIVE FOR SAFETY REASONS, 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)

- **LITHIUM ION BATTERIES, UN 3480**
- **BATTERY SIZE:** ALL ([UN Tested](#))
- GROUND AND VESSEL ONLY
- ONLY PACKAGING DESIGNED FOR DAMAGED OR DEFECTIVE BATTERIES MAY BE USED
- DECLARATION/SHIPPING PAPER & ER INFO (SDS or ERG Page): YES
- CELLS AND BATTERIES LIABLE TO RAPIDLY DISASSEMBLE, DANGEROUSLY REACT, PRODUCE A FLAME OR A DANGEROUS EVOLUTION OF HEAT OR DANGEROUS EMISSION OF TOXIC, CORROSIVE OR FLAMMABLE GASES OR VAPORS UNDER NORMAL CONDITIONS OF TRANSPORT SHALL NOT BE TRANSPORTED



Address label: IMDG optional; DOT see 49 CFR 172.301(d)



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REFERENCE:

IMDG

MARKS AND LABEL: IMDG Code Chapter 5.2 AND SP 376
PACKAGING: IMDG Code Chapter 4.1.4, PI P903 & PI P908

DOT GROUND

MARKS AND LABELS: 49 CFR 172 SUBPARTS D & E & 173.185 (f)(4)
PACKAGING: [49 CFR 173.185 \(b\), \(f\) \(CLICK\)](#)

NAVIGATE (CLICK):



SMALL LITHIUM METAL BATTERIES – NO EQUIPMENT

- **LITHIUM METAL BATTERIES, UN 3090**
- BATTERY SIZE: SMALL ([UN Tested](#))
- GROUND & VESSEL TRANSPORT
- NO EQUIPMENT
- DECLARATION/SHIPPING PAPER: NO
- Limit: 30 KG GROSS WT



Address label optional

OR



Address label optional

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REFERENCE:

GROUND: 49 CFR 173.185 (c)(1)(iii) & (c)(3)

VESSEL: IMDG CODE, CHAPTER 3.3, SP 188

NAVIGATE (CLICK):



SMALL LITHIUM METAL BATTERIES PACKED WITH EQUIPMENT

NET WT OF SMALL BATTERIES PER PACKAGE IS NO MORE THAN 5 KG

- ***LITHIUM METAL BATTERIES PACKED WITH EQUIPMENT, UN 3091***
- BATTERY SIZE: SMALL ([UN Tested](#))
- GROUND & VESSEL TRANSPORT
- DECLARATION/SHIPPING PAPER: NO
- EQUIPMENT AND BATTERY IN SAME PACKAGE. BATTERY NOT INSTALLED.
- [CLICK HERE IF MORE THAN 5 KG NET PER PACKAGE](#)



Address label optional

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REFERENCE:

GROUND: 49 CFR 173.185 (c)(1)(iii) & (c)(3)

VESSEL: IMDG CODE, CHAPTER 3.3, SP 188

NAVIGATE (CLICK):



SMALL LITHIUM METAL BATTERIES PACKED WITH EQUIPMENT



NET WT OF BATTERIES PER PACKAGE IS GREATER THAN 5 KG

- **LITHIUM METAL BATTERIES PACKED WITH EQUIPMENT, UN 3091**
- BATTERY SIZE: SMALL ([UN Tested](#))
- GROUND & VESSEL TRANSPORT
- DECLARATION/SHIPPING PAPER: NO
- EQUIPMENT AND BATTERY IN SAME PACKAGE. BATTERY NOT INSTALLED.
- CAO OR "PRIMARY..." LABEL ONLY REQUIRED IF SHIPPED FROM, THROUGH OR TO USA
- [CLICK HERE IF NO MORE THAN 5 KG NET PER PACKAGE](#)



Address label optional

OR



Address label optional

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REFERENCE:

GROUND: 49 CFR 173.185 (c)(1)(iii) & (c)(3)

VESSEL: IMDG CODE, CHAPTER 3.3, SP 188

NAVIGATE (CLICK):



SMALL LITHIUM METAL BATTERIES CONTAINED IN EQUIPMENT

NET WT OF BATTERIES PER PACKAGE IS NO MORE THAN 5 KG



- **LITHIUM METAL BATTERIES CONTAINED IN EQUIPMENT, UN 3091**
- GROUND & VESSEL TRANSPORT
- BATTERY SIZE: SMALL ([UN Tested](#))
- **NO MORE THAN 4 CELLS OR 2 BATTERIES CONTAINED IN EQUIPMENT PER PACKAGE**
- BATTERY INSTALLED IN EQUIPMENT.
- DECLARATION/SHIPPING PAPER: NO
- [CLICK HERE IF MORE THAN 4 CELLS OR 2 BATTERIES INSTALLED \(OTHER THAN BUTTON CELLS\) & NO MORE THAN 5 KG NET](#)
- [CLICK HERE IF MORE THAN 4 CELLS OR 2 BATTERIES INSTALLED \(OTHER THAN BUTTON CELLS\) & OVER 5 KG NET](#)
- [CLICK HERE IF LITHIUM METAL BUTTON CELLS CONTAINED IN EQUIPMENT](#)
- [CLICK HERE FOR ACTIVATED TRACKING DEVICES CONTAINING A LITHIUM METAL BATTERY](#)



Address label optional



Address label optional



IF MORE THAN 2 PACKAGES PER CONSIGNMENT.

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REFERENCE:

GROUND: 49 CFR 173.185 (c)(1)(iii) & (c)(3)

VESSEL: IMDG CODE, CHAPTER 3.3, SP 188

NAVIGATE (CLICK):



SMALL LITHIUM METAL BUTTON CELLS CONTAINED IN EQUIPMENT

NET WT OF BATTERIES PER PACKAGE IS NO MORE THAN 5 KG

- **LITHIUM METAL BATTERIES CONTAINED IN EQUIPMENT, UN 3091**
- GROUND & VESSEL TRANSPORT
- BATTERY SIZE: SMALL ([UN Tested](#))
- **BUTTON CELL INSTALLED IN EQUIPMENT**
- DECLARATION/SHIPPING PAPER: NO
- BUTTON CELL INSTALLED IN EQUIPMENT
- NO LIMIT TO THE NUMBER OF BUTTON CELLS INSTALLED, BUT CANNOT EXCEED 5 KG NET
- [CLICK HERE IF SMALL LITHIUM METAL BATTERY OTHER THAN BUTTON CELL INSTALLED](#)
- [CLICK HERE FOR ACTIVATED TRACKING DEVICES CONTAINING A LITHIUM METAL BATTERY](#)



Address label optional

Button cell or battery means a round small cell or battery when the overall height is less than the diameter.

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REFERENCE:

GROUND: 49 CFR 173.185 (c)(1)(iii) & (c)(3)

VESSEL: IMDG CODE, CHAPTER 3.3, SP 188

NAVIGATE (CLICK):



SMALL LITHIUM METAL BATTERIES CONTAINED IN EQUIPMENT



NET WT OF BATTERY PER PACKAGE NO MORE THAN 5 KG

- **LITHIUM METAL BATTERIES CONTAINED IN EQUIPMENT, UN 3091**
- GROUND & VESSEL TRANSPORT
- BATTERY SIZE: SMALL ([UN Tested](#))
- **MORE THAN 4 CELLS OR 2 BATTERIES CONTAINED IN EQUIPMENT PER PACKAGE**
- DECLARATION/SHIPPING PAPER: NO
- BATTERIES INSTALLED IN EQUIPMENT
- [CLICK HERE IF MORE THAN 4 CELLS OR 2 BATTERIES INSTALLED \(OTHER THAN BUTTON CELLS\) & OVER 5 KG NET](#)
- [CLICK HERE IF NO MORE THAN 4 CELLS OR 2 BATTERIES INSTALLED \(OTHER THAN BUTTON CELLS\) & NO MORE THAN 5 KG NET](#)
- [CLICK HERE IF LITHIUM METAL BUTTON CELLS CONTAINED IN EQUIPMENT](#)
- [CLICK HERE FOR ACTIVATED TRACKING DEVICES CONTAINING A LITHIUM METAL BATTERY](#)



Address label optional

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REFERENCE:

GROUND: 49 CFR 173.185 (c)(1)(iii) & (c)(3)

VESSEL: IMDG CODE, CHAPTER 3.3, SP 188

NAVIGATE (CLICK):



SMALL LITHIUM METAL BATTERIES CONTAINED IN EQUIPMENT

NET WT OF BATTERIES PER PACKAGE IS MORE THAN 5 KG



- **LITHIUM METAL BATTERIES CONTAINED IN EQUIPMENT, UN 3091**
- BATTERY SIZE: SMALL ([UN Tested](#))
- GROUND & VESSEL TRANSPORT
- MORE THAN 4 CELLS OR 2 BATTERIES INSTALLED IN EQUIPMENT PER PACKAGE
- DECLARATION/SHIPPING PAPER: NO
- BATTERIES INSTALLED IN EQUIPMENT
- CAO OR "PRIMARY..." LABEL ONLY REQUIRED IF SHIPPED FROM, THROUGH OR TO USA
- [CLICK HERE IF NO MORE THAN 4 CELLS OR 2 BATTERIES INSTALLED \(OTHER THAN BUTTON CELLS\) & NO MORE THAN 5 KG NET](#)
- [CLICK HERE IF MORE THAN 4 CELLS OR 2 BATTERIES INSTALLED \(OTHER THAN BUTTON CELLS\) & NO MORE THAN 5 KG NET](#)
- [CLICK HERE IF LITHIUM METAL BUTTON CELLS CONTAINED IN EQUIPMENT](#)
- [CLICK HERE FOR ACTIVATED TRACKING DEVICES CONTAINING A LITHIUM METAL BATTERY](#)



Address label optional

OR



Address label optional

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REFERENCE:

GROUND: 49 CFR 173.185 (c)(1)(iii) & (c)(3)

VESSEL: IMDG CODE, CHAPTER 3.3, SP 188

NAVIGATE (CLICK):



SMALL LITHIUM METAL BATTERIES – NO EQUIPMENT (PI 968 SECTION IB)



- **LITHIUM METAL BATTERIES, UN 3090**
- Air TRANSPORT
- NO EQUIPMENT
- BATTERY SIZE: SMALL ([UN Tested](#))
- Package contains ≤ 2.5 KG net, lithium metal batteries
- DECLARATION/SHIPPING PAPER & ER INFO (SDS or ERG Page): YES



Address label mandatory

NET QTY (KG OF BATTERIES) MUST JIVE WITH NET QTY DESCRIBED ON DECLARATION

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REFERENCE:

DOMESTIC USA: 49 CFR 173.185 (c)(3), (c)(4)

INTERNATIONAL AIR: IATA, PACKING INSTRUCTION 968, SECTION IB

PI 968 SECTION II WAS
ELIMINATED 1-JAN-2022

SMALL UN 3090 MUST BE
SHIPPED PI 968 SECTION IB OR
PI 968 SECTION IA

CELLS AND BATTERIES MUST NOT
BE PACKED IN THE SAME OUTER
PACKAGING WITH CLASS 1
(OTHER THAN 1.4S), DIV 2.1,
CLASS 3, DIV 4.1 or DIV 5.1



NAVIGATE (CLICK):



SMALL LITHIUM METAL BATTERIES PACKED WITH EQUIPMENT

- **LITHIUM METAL BATTERIES PACKED WITH EQUIPMENT, UN 3091**
- Air TRANSPORT
- BATTERY SIZE: SMALL ([UN Tested](#))
- **LIMIT: NET WT OF BATTERIES PER PACKAGE IS NO MORE THAN 5 KG**
- **NO MORE THAN THE MINIMUM NUMBER OF BATTERIES TO POWER THE EQUIPMENT PLUS TWO SPARES.**
- DECLARATION/SHIPPING PAPER: NO
- EQUIPMENT AND BATTERY IN SAME PACKAGE. BATTERY NOT INSTALLED.



Address label optional

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REFERENCE:

DOMESTIC USA: 49 CFR 173.185 (c)(3), (c)(4)

INTERNATIONAL AIR: IATA, PACKING INSTRUCTION 969, SECTION II

NAVIGATE (CLICK):



SMALL LITHIUM METAL BATTERIES CONTAINED IN EQUIPMENT

NO MORE THAN 4 CELLS OR 2 BATTERIES CONTAINED IN EQUIPMENT PER PACKAGE



- **LITHIUM METAL BATTERIES CONTAINED IN EQUIPMENT, UN 3091**
- Air TRANSPORT
- BATTERY SIZE: SMALL ([UN Tested](#))
- **LIMIT: NET WT OF BATTERIES PER PACKAGE IS NO MORE THAN 5 KG**
- **LIMIT:** NO MORE THAN 4 LITHIUM METAL CELLS OR 2 LITHIUM METAL BATTERIES ARE CONTAINED IN EQUIPMENT OR IF BUTTON CELLS ARE INSTALLED PER PACKAGE
- DECLARATION/SHIPPING PAPER: NO
- BATTERY IS INSTALLED.
- [CLICK HERE IF MORE THAN 4 CELLS OR 2 BATTERIES \(OTHER THAN BUTTON CELLS\) ARE CONTAINED IN EQUIPMENT PER PACKAGE](#)
- [CLICK HERE IF LITHIUM METAL BUTTON CELLS ARE CONTAINED IN EQUIPMENT](#)
- [CLICK HERE FOR ACTIVATED TRACKING DEVICE CONTAINING A LITHIUM METAL BATTERY](#)



IF SHIPPING ONE OR TWO PACKAGES
PER CONSIGNMENT ACCORDING TO
PI 970, SECTION II



IF SHIPPING MORE THAN TWO
PACKAGES PER CONSIGNMENT
ACCORDING TO PI 970, SECTION II

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REFERENCE:

DOMESTIC USA: 49 CFR 173.185 (c)(3), (c)(4)

INTERNATIONAL AIR: IATA, PACKING INSTRUCTION 970, SECTION II

NAVIGATE (CLICK):



SMALL LITHIUM METAL BUTTON CELLS CONTAINED IN EQUIPMENT



NO MORE THAN 5 KG NET QTY OF BUTTON CELLS INSTALLED PER PKG

- **LITHIUM METAL BATTERIES CONTAINED IN EQUIPMENT, UN 3091**
- AIR TRANSPORT
- BATTERY SIZE: SMALL (UN Tested)
- **BUTTON CELL INSTALLED IN EQUIPMENT**
- DECLARATION/SHIPPING PAPER: NO
- BUTTON CELL INSTALLED IN EQUIPMENT
- NO LIMIT TO THE NUMBER OF BUTTON CELLS INSTALLED, CANNOT EXCEED 5 KG NET
- [CLICK HERE IF SMALL LITHIUM METAL BATTERY OTHER THAN BUTTON CELL INSTALLED](#)
- [CLICK HERE FOR ACTIVATED TRACKING DEVICE CONTAINING A LITHIUM METAL BATTERY](#)



Address label optional

Button cell or battery means a round small cell or battery when the overall height is less than the diameter.

© HAZMATEAM, INC

REFERENCE:

DOMESTIC USA: 49 CFR 173.185 (c)(3), (c)(4)

INTERNATIONAL AIR: IATA, PACKING INSTRUCTION 970, SECTION II

NAVIGATE (CLICK):



SMALL LITHIUM METAL BATTERIES CONTAINED IN EQUIPMENT

MORE THAN 4 CELLS OR 2 BATTERIES INSTALLED PER PACKAGE



- **LITHIUM METAL BATTERIES CONTAINED IN EQUIPMENT, UN 3091**
- Air TRANSPORT
- BATTERY SIZE: SMALL ([UN Tested](#))
- **LIMIT: NET WT OF BATTERIES PER PACKAGE IS NO MORE THAN 5 KG**
- DECLARATION/SHIPPING PAPER: NO
- BATTERY IS INSTALLED.
- [CLICK HERE IF NO MORE THAN 4 CELLS OR 2 BATTERIES ARE CONTAINED IN EQUIPMENT PER PACKAGE](#)
- [CLICK HERE FOR ACTIVATED TRACKING DEVICE CONTAINING A LITHIUM METAL BATTERY](#)



Address label optional

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REFERENCE:

DOMESTIC USA: 49 CFR 173.185 (c)(3), (c)(4)

INTERNATIONAL AIR: IATA, PACKING INSTRUCTION 970, SECTION II

NAVIGATE (CLICK):



TRACKING DEVICE WITH A SMALL LITHIUM METAL BATTERY CONTAINED IN EQUIPMENT

TRACKING DEVICE (SUCH AS A DATA LOGGER) ACTIVATED DURING AIR TRANSPORT



- **LITHIUM METAL BATTERIES CONTAINED IN EQUIPMENT, UN 3091**
- AIR TRANSPORT
- BATTERY SIZE: SMALL; BATTERY/CELL INSTALLED
- BATTERY MUST BE UN 38.3 TESTED ([UN Tested](#))
- DECLARATION/SHIPPING PAPER: NO
- **THE EQUIPMENT MUST BE IN USE OR INTENDED FOR USE DURING TRANSPORTATION, NOT AS CARGO.**
- PACKAGES CONTAINING COVID-19 PHARMACEUTICALS ACCOMPANIED BY DATA LOGGERS AND/OR CARGO TRACKING DEVICES CONTAINING LITHIUM METAL BATTERIES ARE NOT SUBJECT TO THE MARKING AND DOCUMENTATION REQUIREMENTS OF SECTION II OF PACKING INSTRUCTION 970.
- PACKAGES ACCOMPANIED BY DATA LOGGERS AND/OR CARGO TRACKING DEVICES (WITHOUT COVID-19 PHARMACEUTICALS) CONTAINING LITHIUM ION BATTERIES ARE NOT SUBJECT TO THE MARKING AND DOCUMENTATION REQUIREMENTS OF SECTION II OF PACKING INSTRUCTION 970 **PROVIDED PRIOR ARRANGEMENTS HAVE BEEN MADE WITH THE OPERATOR (THE AIRLINE)**. IF ARRANGEMENTS HAVE NOT BEEN MADE, MUST SHIP PER PI 970 SECTION II ([CLICK HERE FOR PI 970 SECTION II](#)).
- DEVICE IS NOT CAPABLE OF GENERATING A DANGEROUS EVOLUTION OF HEAT. WHEN ACTIVE, THESE DEVICES MUST MEET STANDARDS FOR ELECTROMAGNETIC RADIATION TO ENSURE THAT THE OPERATION OF THE DEVICE DOES NOT INTERFERE WITH AIRCRAFT SYSTEMS. THE DEVICES MUST NOT BE CAPABLE OF EMITTING DISTURBING SIGNALS (SUCH AS BUZZING ALARMS, STROBE LIGHTS).



Address label optional

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REFERENCE:

DOMESTIC USA: 49 CFR 173.14

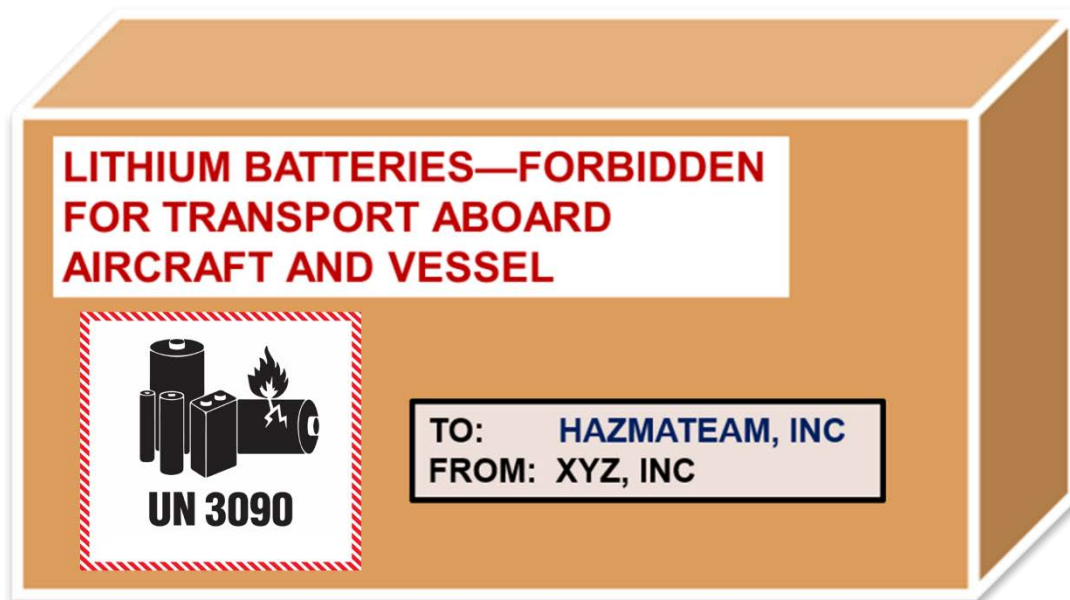
INTERNATIONAL AIR: IATA, PACKING INSTRUCTION 970. SECTION II AND SPECIAL PROVISION A220

NAVIGATE (CLICK):



MEDIUM LITHIUM METAL BATTERIES – NO EQUIPMENT

- **LITHIUM METAL BATTERIES, UN 3090**
- GROUND ONLY --- DOMESTIC USA ONLY
- BATTERY SIZE: MEDIUM ([UN Tested](#))
- NO EQUIPMENT
- DECLARATION/SHIPPING PAPER: NO
- Limit: 30 KG GROSS WT



Address label optional

© HAZMATEAM, INC

REFERENCE:

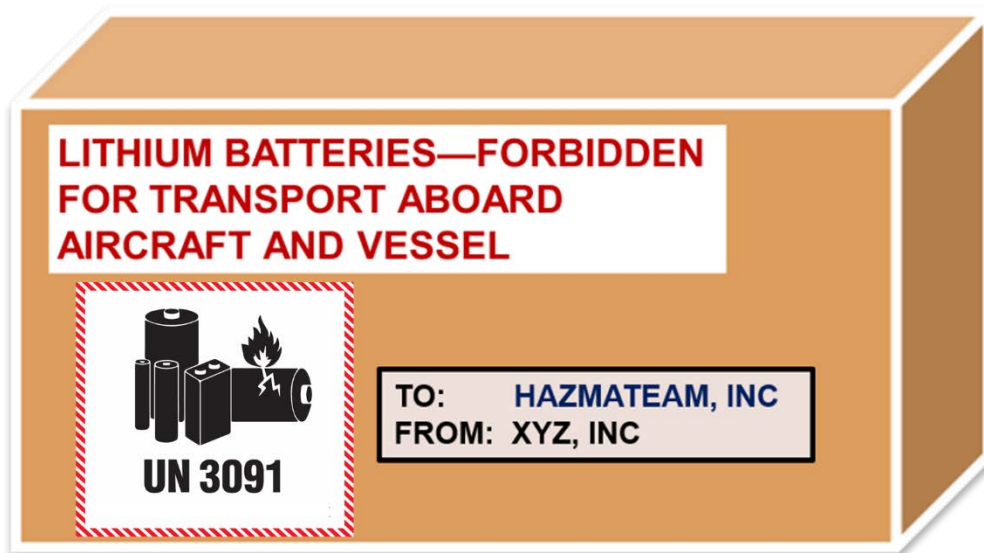
GROUND: 49 CFR 173.185 (c)(1)(iv), (vi) & (c)(3)

NAVIGATE (CLICK):



MEDIUM LITHIUM METAL BATTERIES PACKED WITH EQUIPMENT

- **LITHIUM METAL BATTERIES PACKED WITH EQUIPMENT, UN 3091**
- GROUND ONLY – DOMESTIC USA ONLY
- BATTERY SIZE: MEDIUM ([UN Tested](#))
- DECLARATION/SHIPPING PAPER: NO
- EQUIPMENT AND BATTERY IN SAME PACKAGE. BATTERY NOT INSTALLED.



Address label optional

© HAZMATEAM, INC

REFERENCE:

GROUND: 49 CFR 173.185 (c)(1)(iv) & (c)(3)

NAVIGATE (CLICK):

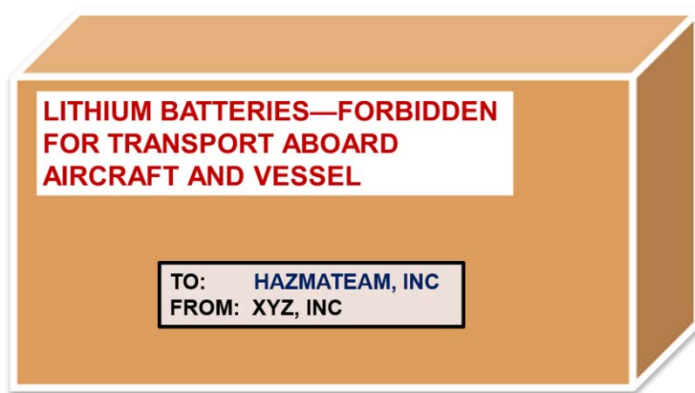


MEDIUM LITHIUM METAL BATTERIES CONTAINED IN EQUIPMENT

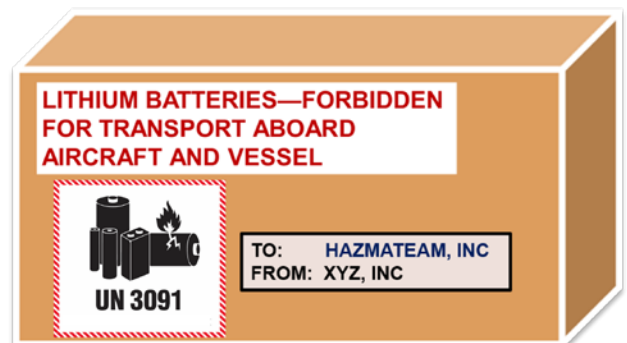
NO MORE THAN 4 CELLS OR 2 BATTERIES INSTALLED PER PACKAGE



- **LITHIUM METAL BATTERIES CONTAINED IN EQUIPMENT, UN 3091**
- GROUND ONLY – DOMESTIC USA ONLY
- BATTERY SIZE: MEDIUM ([UN Tested](#))
- NO MORE THAN 4 CELLS OR 2 BATTERIES INSTALLED IN EQUIPMENT OR BUTTON CELLS INSTALLED
- DECLARATION/SHIPPING PAPER: NO
- BATTERY INSTALLED IN EQUIPMENT.
- [CLICK HERE IF MORE THAN 4 CELLS OR 2 BATTERIES ARE CONTAINED IN EQUIPMENT PER PACKAGE](#)
- [CLICK HERE FOR ACTIVATED TRACKING DEVICES CONTAINING A LITHIUM METAL BATTERY](#)



Address label optional



Address label optional



IF MORE THAN 2 PACKAGES PER CONSIGNMENT.

© HAZMATEAM, INC

REFERENCE:

GROUND: 49 CFR 173.185 (c)(1)(iv) & (c)(3)

NAVIGATE (CLICK):

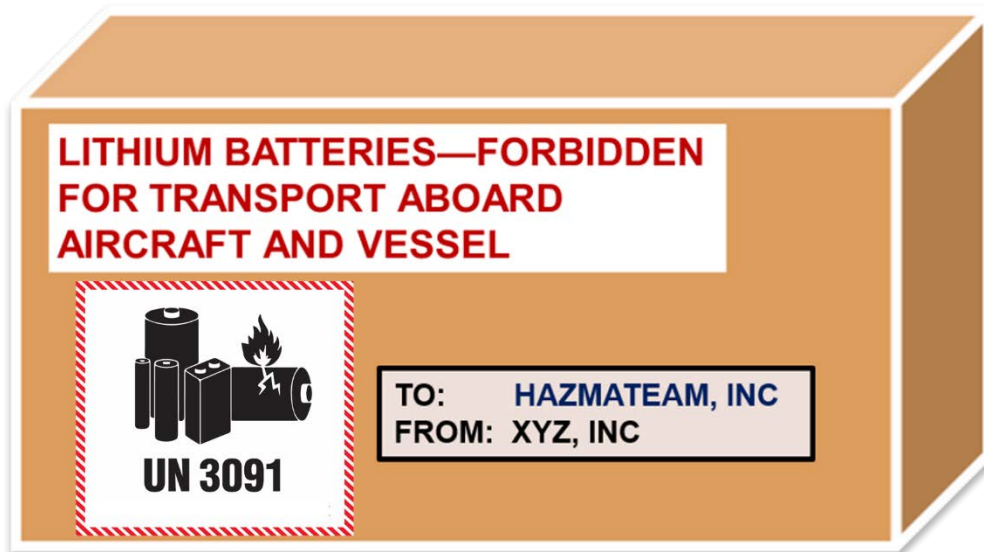


MEDIUM LITHIUM METAL BATTERIES CONTAINED IN EQUIPMENT

MORE THAN 4 CELLS OR 2 BATTERIES CONTAINED IN EQUIPMENT PER PACKAGE



- **LITHIUM METAL BATTERIES CONTAINED IN EQUIPMENT, UN 3091**
- GROUND ONLY --- DOMESTIC USA ONLY
- BATTERY SIZE: MEDIUM ([UN Tested](#))
- DECLARATION/SHIPPING PAPER: NO
- BATTERIES INSTALLED IN EQUIPMENT
- [CLICK HERE IF NO MORE THAN 4 CELLS OR 2 BATTERIES CONTAINED IN EQUIPMENT PER PACKAGE](#)
- [CLICK HERE FOR ACTIVATED TRACKING DEVICES CONTAINING A LITHIUM METAL BATTERY](#)



Address label optional

© HAZMATEAM, INC

REFERENCE:

GROUND: 49 CFR 173.185 (c)(1)(iv) & (c)(3)

NAVIGATE (CLICK):



FULLY REGULATED LITHIUM METAL BATTERIES – NO EQUIPMENT

- **LITHIUM METAL BATTERIES, UN 3090**
- GROUND & VESSEL TRANSPORT
- NO EQUIPMENT
- BATTERY SIZE: FULLY REGULATED ([UN Tested](#))
- DECLARATION/SHIPPING PAPER & ER INFO (SDS or ERG Page): YES
- Limit: REFER TO PACKAGE CLOSURE INSTRUCTION



Address label: IMDG optional; DOT see 49 CFR 172.301(d)



© HAZMATEAM, INC

REFERENCE:

GROUND: 49 CFR 172.301 & 172.447, 173.185

VESSEL: IMDG CODE, CHAPTER 5.2, PI P903

NAVIGATE (CLICK):



FULLY REGULATED LITHIUM METAL BATTERIES PACKED WITH EQUIPMENT

- **LITHIUM METAL BATTERIES PACKED WITH EQUIPMENT, UN 3091**
- GROUND & VESSEL TRANSPORT
- BATTERY SIZE: FULLY REGULATED ([UN Tested](#))
- DECLARATION/SHIPPING PAPER & ER INFO (SDS or ERG Page): YES
- EQUIPMENT AND BATTERY IN SAME PACKAGE. BATTERY NOT INSTALLED.
- Limit: REFER TO PACKAGE CLOSURE INSTRUCTION



Address label: IMDG optional; DOT see 49 CFR 172.301(d)

© HAZMATEAM, INC

REFERENCE:

GROUND: 49 CFR 172.301, 172.447 & 173.185

VESSEL: IMDG CODE, CHAPTER 5.2, PI P903

NAVIGATE (CLICK):



FULLY REGULATED LITHIUM METAL BATTERIES CONTAINED IN EQUIPMENT

- **LITHIUM METAL BATTERIES CONTAINED IN EQUIPMENT, UN 3091**
- GROUND & VESSEL TRANSPORT
- BATTERY SIZE: FULLY REGULATED ([UN Tested](#))
- DECLARATION/SHIPPING PAPER & ER INFO (SDS or ERG Page): YES
- BATTERY INSTALLED IN EQUIPMENT
- [CLICK HERE FOR ACTIVATED TRACKING DEVICES CONTAINING A LITHIUM METAL BATTERY](#)



Address label: IMDG optional; DOT see 49 CFR 172.301(d)

© HAZMATEAM, INC

REFERENCE:

GROUND: 49 CFR 172.301 & 172.400 (b)

SPEC PKG NOT REQUIRED: 49 CFR 173.185 (b)(4)

VESSEL: IMDG CODE, CHAPTER 5.2, PI P903

NAVIGATE (CLICK):



FULLY REGULATED LITHIUM METAL BATTERIES – NO EQUIPMENT (PI 968 SECTION IA)

- **LITHIUM METAL BATTERIES, UN 3090**
- AIR TRANSPORT
- NO EQUIPMENT
- BATTERY SIZE: FULLY REGULATED ([UN Tested](#))
- DECLARATION/SHIPPING PAPER & ER INFO (SDS or ERG Page): YES
- FORBIDDEN FOR PASSENGER AIRCRAFT; MAX NET QTY PER CARGO AIRCRAFT = 35 KG
- REFER TO PACKAGE CLOSURE INSTRUCTION



Address label mandatory



NET QTY
(KG OF BATTERIES)
MUST JIVE WITH
NET QTY
DESCRIBED ON
DECLARATION

CELLS AND BATTERIES
MUST NOT BE
PACKED IN THE SAME
OUTER PACKAGING
WITH CLASS 1 (OTHER
THAN 1.4S), DIV 2.1,
CLASS 3, DIV 4.1 or
DIV 5.1

© HAZMATEAM, INC

REFERENCE:

DOMESTIC USA: 49 CFR 172.301 & 172.400(b), 172.402(c)

INTERNATIONAL AIR: IATA 7.1.4.1, 7.2.3.1, PI 968 SECTION IA

NAVIGATE (CLICK):



FULLY REGULATED LITHIUM METAL BATTERIES PACKED WITH EQUIPMENT

LITHIUM METAL BATTERIES PACKED WITH EQUIPMENT, UN 3091

- AIR TRANSPORT
- BATTERY SIZE: FULLY REGULATED ([UN Tested](#))
- EQUIPMENT AND BATTERY IN SAME PACKAGE. BATTERY NOT INSTALLED.
- DECLARATION/SHIPPING PAPER & ER INFO (SDS or ERG Page): YES
- MAX NET PER PKG PASSENGER AIR = 5 KG;
- MAX NET QTY PER PKG CARGO AIRCRAFT = 35 KG
- REFER TO PACKAGE CLOSURE INSTRUCTION



Address label: IMDG optional; DOT see 49 CFR 172.301(d)



ADD THIS LABEL IF PACKAGE CONTAINS
GREATER THAN 5 KG NET LITHIUM
METAL BATTERIES (35 KG MAX)

NET QTY (KG OF BATTERIES) MUST JIVE
WITH NET QTY DESCRIBED ON DECLARATION



© HAZMATEAM, INC

REFERENCE:

DOMESTIC USA: 49 CFR 172.301 & 172.400(b), 172.402(c)

INTERNATIONAL AIR: IATA 7.1.4.1, 7.2.3.1, PI 969 SECTION I

NAVIGATE (CLICK):



FULLY REGULATED LITHIUM METAL BATTERIES CONTAINED IN EQUIPMENT

- **LITHIUM METAL BATTERIES CONTAINED IN EQUIPMENT, UN 3091**
- AIR TRANSPORT
- BATTERY SIZE: FULLY REGULATED ([UN Tested](#))
- DECLARATION/SHIPPING PAPER & ER INFO (SDS or ERG Page): YES
- BATTERY INSTALLED IN EQUIPMENT
- MAX NET PER PKG PASSENGER AIR = 5 KG; MAX NET QTY PER PKG CARGO AIRCRAFT = 35 KG



Address label mandatory



ADD THIS LABEL IF PACKAGE CONTAINS
GREATER THAN 5 KG NET LITHIUM METAL
BATTERIES (35 KG MAX)

NET QTY (KG OF BATTERIES) MUST JIVE
WITH NET QTY DESCRIBED ON DECLARATION



© HAZMATEAM, INC

REFERENCE:

DOMESTIC USA: 49 CFR 172.301, 172.447, 172.402(c) & 173.185

SPEC PKG NOT REQUIRED: 49 CFR 173.185 (b)(4)

INTERNATIONAL AIR: IATA 7.1.4.1, 7.2.3.1, PI 970 SECTION I

NAVIGATE (CLICK):



TRACKING DEVICE

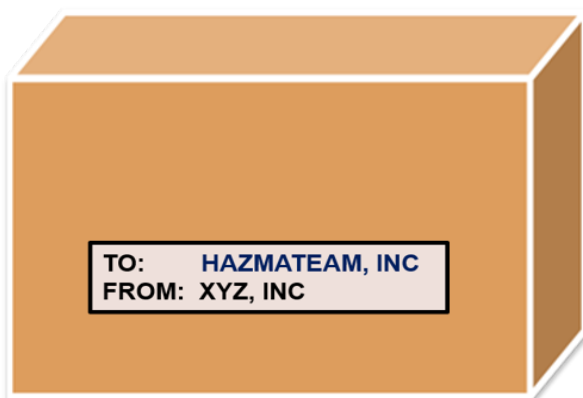




TRACKING DEVICE WITH A LITHIUM METAL BATTERY CONTAINED IN EQUIPMENT

TRACKING DEVICE (SUCH AS A DATA LOGGER) ACTIVATED DURING GROUND OR VESSEL TRANSPORT

- **LITHIUM METAL BATTERIES CONTAINED IN EQUIPMENT, UN 3091**
- GROUND AND VESSEL TRANSPORT
- BATTERY SIZE: ALL SIZES
- BATTERY/CELL INSTALLED
- BATTERY MUST BE UN 38.3 TESTED ([UN Tested](#))
- DECLARATION/SHIPPING PAPER: NO
- **THE EQUIPMENT MUST BE IN USE OR INTENDED FOR USE DURING TRANSPORTATION, NOT AS CARGO.**
- DEVICE IS NOT CAPABLE OF GENERATING A DANGEROUS EVOLUTION OF HEAT. WHEN ACTIVE, THESE DEVICES MUST MEET STANDARDS FOR ELECTROMAGNETIC RADIATION TO ENSURE THAT THE OPERATION OF THE DEVICE DOES NOT INTERFERE WITH AIRCRAFT SYSTEMS. THE DEVICES MUST NOT BE CAPABLE OF EMITTING DISTURBING SIGNALS (SUCH AS BUZZING ALARMS, STROBE LIGHTS).
- FOR VESSEL TRANSPORT, TRACKING DEVICES MUST BE SECURELY INSTALLED AND MUST BE OF A CERTIFIED SAFE TYPE FOR THE HAZARDOUS MATERIALS THAT WILL BE CARRIED WITHIN THE FREIGHT CONTAINER OR TRANSPORT VEHICLE IN WHICH SUCH AS DEVICE OR EQUIPMENT IS INSTALLED.



Address label optional

© HAZMATEAM, INC

REFERENCE:

DOMESTIC USA: 49 CFR 173.14, 176.76 (a)(9)

INTERNATIONAL VESSEL: IMDG PI 903, IMDG SP 188

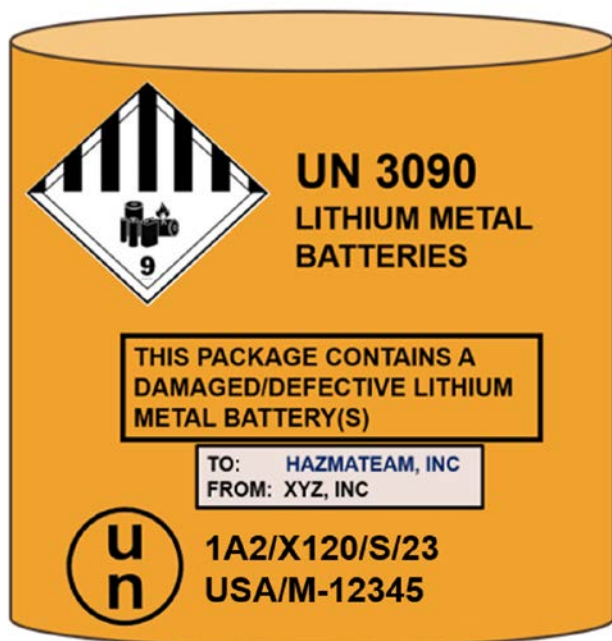
NAVIGATE (CLICK):



DAMAGED/DEFECTIVE LITHIUM METAL BATTERIES SHIPPED GROUND & VESSEL

LITHIUM CELLS OR BATTERIES, THAT HAVE BEEN DAMAGED OR IDENTIFIED BY THE MANUFACTURER AS BEING DEFECTIVE FOR SAFETY REASONS, 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)

- **LITHIUM METAL BATTERIES, UN 3090**
- BATTERY SIZE: ALL ([UN Tested](#))
- GROUND AND VESSEL ONLY
- ONLY PACKAGING DESIGNED FOR DAMAGED OR DEFECTIVE BATTERIES MAY BE USED
- DECLARATION/SHIPPING PAPER & ER INFO (SDS or ERG Page): YES
- CELLS AND BATTERIES LIABLE TO RAPIDLY DISASSEMBLE, DANGEROUSLY REACT, PRODUCE A FLAME OR A DANGEROUS EVOLUTION OF HEAT OR DANGEROUS EMISSION OF TOXIC, CORROSIVE OR FLAMMABLE GASES OR VAPORS UNDER NORMAL CONDITIONS OF TRANSPORT SHALL NOT BE TRANSPORTED



Address label: IMDG optional; DOT see 49 CFR 172.301(d)



BOTH REQUIRED

© HAZMATEAM, INC

REFERENCE:

IMDG

MARKS AND LABEL: IMDG Code Chapter 5.2 AND SP 376

PACKAGING: IMDG Code Chapter 4.1.4, PI P903 & PI P908

DOT GROUND

MARKS AND LABELS: 49 CFR 172 SUBPARTS D & E & 173.185 (f)(4)

PACKAGING: [49 CFR 173.185 \(b\), \(f\) \(CLICK\)](#)

NAVIGATE (CLICK):





BATTERY-POWERED VEHICLES SHIPPED GROUND

- **BATTERY-POWERED VEHICLE, UN 3171**
- BATTERY SIZE: ALL
- BATTERY MUST BE UN 38.3 TESTED ([UN Tested](#))
- MODE: GROUND
- BATTERY MUST BE INSTALLED & NOT DAMAGED/DEFECTIVE
- NO SPARE BATTERIES ARE PERMITTED
- DECLARATION/SHIPPING PAPER & ER INFO (SDS or ERG Page): NO
- THIS INFORMATION APPLIES TO VEHICLES POWERED ONLY BY A LITHIUM METAL OR LITHIUM ION BATTERY. IF THE VEHICLE IS POWERED BY OTHER BATTERY TYPES OR OTHER FUELS, REFER TO 49 CFR 173.220
- “BATTERY-POWERED VEHICLES” ARE SELF-PROPELLED APPARATUS DESIGNED TO CARRY ONE OR MORE PERSONS OR GOODS. EXAMPLES OF SUCH VEHICLES ARE ELECTRICALLY-POWERED CARS, MOTORCYCLES, SCOOTERS, THREE AND FOUR-WHEELED VEHICLES OR MOTORCYCLES, TRUCKS, LOCOMOTIVES, BICYCLES (PEDAL CYCLES WITH AN ELECTRIC MOTOR) AND OTHER VEHICLES OF THIS TYPE (E.G. SELF-BALANCING VEHICLES OR VEHICLES NOT EQUIPPED WITH AT LEAST ONE SEATING POSITION), LAWN TRACTORS, SELF-PROPELLED FARMING AND CONSTRUCTION EQUIPMENT, BOATS, AIRCRAFT, WHEELCHAIRS AND OTHER MOBILITY AIDS. THIS INCLUDES VEHICLES TRANSPORTED IN A PACKAGING. IN THIS CASE SOME PARTS OF THE VEHICLE MAY BE DETACHED FROM ITS FRAME TO FIT INTO THE PACKAGING. REFERENCE: 49 CFR 172.102, SP 134.
- VEHICLE MUST BE RESTRAINED WITHIN THE OUTER PACKAGE.



**PACKAGE DOES NOT REQUIRE ANY
HAZARD MARKS OR LABELS.**

© HAZMATEAM, INC, REFERENCE:

DOT GROUND

Applicability of UN 3171: [49 CFR 172.102, SP 134 \(CLICK\)](#)

Requirements: [49 CFR 173.220 \(a\),\(d\) and \(h\) \(CLICK\)](#)

NAVIGATE (CLICK):



[BATTERY-POWERED VEHICLES](#)

BATTERY-POWERED VEHICLES SHIPPED VESSEL



- **BATTERY-POWERED VEHICLE, UN 3171**
- BATTERY SIZE: ALL
- BATTERY MUST BE UN 38.3 TESTED ([UN Tested](#))
- MODE: VESSEL
- BATTERY MUST BE INSTALLED & NOT DAMAGED/DEFECTIVE
- NO SPARE BATTERIES ARE PERMITTED
- DECLARATION & ER INFO (SDS or ERG Page): YES
- DECLARATION & ER INFO NOT REQUIRED IF IMDG SP 961 IS APPLICABLE
- FREIGHT CONTAINERS DO NOT REQUIRE PLACARDS
- THIS INFORMATION APPLIES TO VEHICLES POWERED ONLY BY A LITHIUM METAL OR LITHIUM ION BATTERY. IF THE VEHICLE IS POWERED BY OTHER BATTERY TYPES OR OTHER FUELS, REFER TO IMDG SP 388 & 962.
- **"BATTERY-POWERED VEHICLES"** ARE SELF-PROPELLED APPARATUS DESIGNED TO CARRY ONE OR MORE PERSONS OR GOODS. EXAMPLES OF SUCH VEHICLES ARE ELECTRICALLY-POWERED CARS, MOTORCYCLES, SCOOTERS, THREE- AND FOUR-WHEELED VEHICLES OR MOTORCYCLES, TRUCKS, LOCOMOTIVES, BICYCLES (PEDAL CYCLES WITH AN ELECTRIC MOTOR) AND OTHER VEHICLES OF THIS TYPE (E.G. SELF-BALANCING VEHICLES OR VEHICLES NOT EQUIPPED WITH AT LEAST ONE SEATING POSITION), LAWN TRACTORS, SELF-PROPELLED FARMING AND CONSTRUCTION EQUIPMENT, BOATS, AIRCRAFT, WHEELCHAIRS AND OTHER MOBILITY AIDS. THIS INCLUDES VEHICLES TRANSPORTED IN A PACKAGING. IN THIS CASE SOME PARTS OF THE VEHICLE MAY BE DETACHED FROM ITS FRAME TO FIT INTO THE PACKAGING. REFERENCE: IMDG CODE, SP 388.
- VEHICLE MUST BE RESTRAINED WITHIN THE OUTER PACKAGE.



**PACKAGE DOES NOT REQUIRE ANY
HAZARD MARKS OR LABELS.**



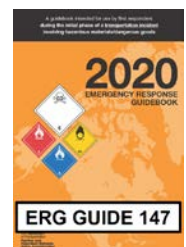
© HAZMATEAM, INC, REFERENCE:

IMDG CODE:

IMDG SPECIAL PROVISIONS 388, 961, & 962

NAVIGATE (CLICK):

[BATTERY-POWERED VEHICLES](#)

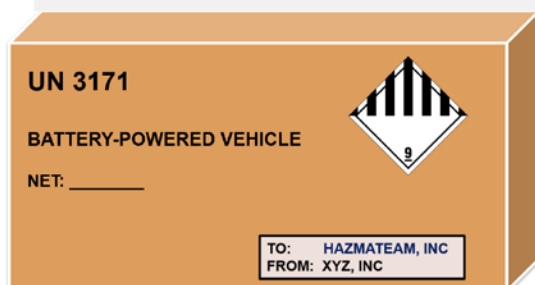




BATTERY-POWERED VEHICLES SHIPPED AIR

- **BATTERY-POWERED VEHICLE, UN 3171**
- BATTERY SIZE: ALL
- BATTERY MUST BE UN 38.3 TESTED ([UN Tested](#))
- MODE: AIR
- BATTERY MUST BE INSTALLED & NOT DAMAGED/DEFECTIVE
- NO SPARE BATTERIES ARE PERMITTED
- DECLARATION & ER INFO (SDS or ERG Page): YES
- THIS INFORMATION APPLIES TO VEHICLES POWERED ONLY BY A LITHIUM METAL OR LITHIUM ION BATTERY. IF THE VEHICLE IS POWERED BY OTHER BATTERY TYPES / OTHER FUELS, REFER TO IATA PI 952.
- “BATTERY-POWERED VEHICLES” ARE SELF-PROPELLED APPARATUS DESIGNED TO CARRY ONE OR MORE PERSONS OR GOODS. EXAMPLES OF SUCH VEHICLES ARE ELECTRICALLY-POWERED CARS, MOTORCYCLES, SCOOTERS, THREE- AND FOUR-WHEELED VEHICLES OR MOTORCYCLES, TRUCKS, LOCOMOTIVES, BICYCLES (PEDAL CYCLES WITH AN ELECTRIC MOTOR) AND OTHER VEHICLES OF THIS TYPE (E.G. SELF-BALANCING VEHICLES OR VEHICLES NOT EQUIPPED WITH AT LEAST ONE SEATING POSITION), LAWN TRACTORS, SELF-PROPELLED FARMING AND CONSTRUCTION EQUIPMENT, BOATS, AIRCRAFT, WHEELCHAIRS AND OTHER MOBILITY AIDS. THIS INCLUDES VEHICLES TRANSPORTED IN A PACKAGING. IN THIS CASE SOME PARTS OF THE VEHICLE MAY BE DETACHED FROM ITS FRAME TO FIT INTO THE PACKAGING. REF: IATA DGR SP 214
- VEHICLE MUST BE RESTRAINED WITHIN THE OUTER PACKAGE.

IF VEHICLE IS IN OUTER PACKAGE & NOT VISIBLE:



NET IS THE WEIGHT OF THE VEHICLE

IF VEHICLE IS VISIBLE, NO MARKS OR LABELS (A87):



RESTRICTIONS:

- FOR UN 3171 in USA, 49 CFR 173.220 (d) prohibits Lithium Metal Batteries installed in vehicle on passenger aircraft.
- Many airlines have restrictions with UN 3171.



BOTH REQUIRED

© HAZMATEAM, INC,

IATA DGR REFERENCE:

SPECIAL PROVISIONS: A87, A185, A214 & PI 952

NAVIGATE (CLICK):

[BATTERY-POWERED VEHICLES](#)



SHIPPING PAPER/DECLARATION EXAMPLES

The following are examples of completed shipping papers/declarations. Always consult the appropriate regulation for complete details:

USA Ground: [49 CFR 172.200 \(CLICK\)](#)
International vessel: IMDG Code, Volume 1, Chapter 5.4
International air: IATA DGR, Section 8 (**Note:** New declaration format as of IATA 60th Edition, 2019; May use declaration illustrated in the 59th Edition until 31-Dec-2024.

EXAMPLE #	MODE	CONSIGNMENT
1 (click)	Ground	UN 3480 and non-regulated material
2 (click)	Ground	UN 3091, Lithium Metal Batteries Packed with Equipment in an overpack
3 (click)	Ground	Wooden crates - UN 3481, Lithium Ion Batteries Contained in equipment and non-regulated material
4 (click)	Vessel	Consignment of UN 3090, UN 3091 ('packed with') and UN 3091 ('contained in')
5 (click)	Vessel	250 packages of UN 3480 loaded into a freight container
6 (click)	Vessel	Packages of UN 3480 and UN 3090 contained in an overpack
7 (click)	Air	Fully regulated UN 3090 shipped according to IATA PI 968 Section IA
8 (click)	Air	Small UN 3090 shipped according to IATA PI 968 Section IB
9 (click)	Air	Fully regulated UN 3480 shipped according to IATA PI 965 Section IA
10 (click)	Air	SMALL UN 3480 batteries shipped according to IATA PI 965 Section IB
11 (click)	Air	UN 3481, Lithium Ion Batteries Contained in Equipment within an overpack
12 (click)	Air	UN 3091, Lithium Metal Batteries packed with equipment. Shipped out of USA.
13 (click)	Vessel	UN 3171, Battery-Powered Vehicle. Powered by a lithium metal battery.
14 (click)	Air	UN 3171, Battery-Powered Vehicle. Powered by a lithium ion battery.

NAVIGATE (CLICK):



- **10 FIBREBOARD BOXES of UN 3480 (NO EQUIPMENT) : Each Box contains 5 KG net batteries; Each Box weighs 11 KG, GROSS**
- **1 box of non-regulated material**

Date **1-JAN-2023**

24 hr. Emergency Contact Tel. No. **800-535-5053, CONTRACT 12345**

**IF USING 3RD PARTY
ER PHONE SERVICE,
INCLUDE CONTRACT
NUMBER**

**TRAINED PERSON'S
SIGNATURE**

**EMERGENCY
RESPONSE
INFORMATION**

- **20 Plywood boxes of Lithium Metal Batteries Packed with Equipment: Each Package contains 3 Kg, net lithium metal batteries; Each Package weighs 10 KG, GROSS WT**
- **All 20 boxes are on a pallet, shrunk wrapped (an overpack)**

(SCAC)

**EMERGENCY
RESPONSE
INFORMATION**

Consignment also includes 2 bags of non-regulated material.

**EMERGENCY
RESPONSE
INFORMATION**

EXAMPLE 4

UN 3090: Each box contains 5 kg of lithium metal batteries; UN 3091, 'packed with', box contains one 5 kg lithium metal battery in same package with equipment; UN 3091, 'contained in' box contains one 12 kg lithium battery installed in equipment

The four packages are sent to a freight forwarder.

MULTIMODAL DANGEROUS GOODS FORM

1 Shipper/Consignor/Sender HAZMATEAM, INC 12 KIMBALL HILL ROAD HUDSON NH 03051 USA		2 Transport document number	
		3 Page 1 of 1 pages	4 Shipper's reference
		Booking Number	5 Freight forwarder's reference
6 Consignee HAZMATEAM - JAMAICA 21 RASTA WAY KINGSTON JAMAICA		7 Carrier	
		IF USING 3RD PARTY ER PHONE SERVICE, INCLUDE CONTRACT NUMBER, FOR INTERNATIONAL DO NOT USE 800 NUMBERS	
10 Vessel	11 Port of loading	SHIPPER'S I hereby de ty the Prop are in all re national government regulations.	
12 Port of discharge	13 Destination	9 Additional handling instructions 24 HR ER - INFOTRAC 1-011-352-323-3500; Contract ID - 123S3B	
14 Shipping marks		*) Number and kind of packages: description of goods	
		Gross mass (kg) Net Cube (m ³)	
		UN 3090, LITHIUM METAL BATTERIES, 9 30 KG 10 KG	
		IMDG EMS: F-A, S-I; DOT ERG 138	
		2 (4G) FIBREBOARD BOXES	
		UN 3091, LITHIUM METAL BATTERIES 25 KG 5 KG	
		PACKED WITH EQUIPMENT, 9	
		IMDG EMS: F-A, S-I; DOT ERG 138	
		1 (4G) FIBREBOARD BOX	
		UN 3091, LITHIUM METAL BATTERIES 66 KG 12 KG	
		CONTAINED IN EQUIPMENT, 9	
		IMDG EMS: F-A, S-I; DOT ERG 138	
		1 PLYWOOD BOX	
15 Container identification No./		16 Seal number(s)	17 Cont./vehicle size & type
18 T			
CONTAINER/VEHICLE PACKING CERTIFICATE I hereby declare that the goods described above have been packed/loaded, packed together, into the container/vehicle identified above in accordance with the applicable provisions.**) MUST BE COMPLETED AND SIGNED FOR ALL CONTAINER/VEHICLE LOADS BY PERSON RESPONSIBLE FOR PACKING/LOADING		21 RECEIVING ORGANIZATION Received the above number of pac unless stated hereon: RECEIVING	
20 Name of company		Haulier's name	
		Vehicle reg. no	
Name/status of declarant		Signature and date	
Place and date			
Signature of declarant		Driver's signature	
		22 Name of co. of shipper preparing this note HAZMATEAM	
		Name/status of declarant Elon Musk, Shipper	
		Place and date Hudson, NH, 6-JAN-2023	
		Signature of declarant Elon Musk	

IMDG EMS –
COLUMN 15
OF DGL

DOT ERG –
'ORANGE
BOOK' CODE

PACKAGE
CODES
(EX – 4G)
OPTIONAL

**BOX 22 ALWAYS
REQUIRES A
SIGNATURE BY
TRAINED SHIPPER**

NAVIGATE (CLICK):



**EMERGENCY
RESPONSE
INFORMATION**

EXAMPLE 5

250 Packages of rechargeable lithium batteries loaded into a freight container at the shipper's facility. Each package contains a 10 Kg battery. Gross wt of each package is 20 KG.

MULTIMODAL DANGEROUS GOODS FORM

1 Shipper/Consignor/Sender HAZMATEAM, INC 12 KIMBALL HILL ROAD HUDSON NH 03051 USA		2 Transport document number	
6 Consignee HAZMATEAM - NETHERLANDS ZANDERSTEEN 66 2669 VL AMSTERDAM NETHERLANDS		3 Page 1 of 1 pages	4 Shipper's reference
		Booking Number	5 Freight forwarder's reference
		7 Carrier IF USING 3RD PARTY ER PHONE SERVICE, INCLUDE CONTRACT NUMBER, FOR INTERNATIONAL DO NOT USE 800 NUMBERS	
10 Vessel	11 Port of loading	SHIPPER'S I hereby declare that the goods described below by the Proper Shipping Name, and are classified, packed, marked and labelled/placarded and are in all respects in proper condition for transport according to the applicable international and national government regulations.	
12 Port of discharge	13 Destination	9 Additional handling instructions 24 HR ER - INFOTRAC 1-011-352-323-3500; Contract ID - 123S3B	
14 Shipping marks	*) Number and kind of packages: description of goods		Gross mass (kg) Net Cube (m³)
	UN 3480, LITHIUM ION BATTERIES, 9 IMDG EMS: F-A, S-I; ERG 147 250 (4G) FIBREBOARD BOXES		5000 KG 2500 KG
IMDG EMS - COLUMN 15 OF DGL			
DOT ERG - 'ORANGE BOOK' CODE		PACKAGE CODES (EX - 4G) OPTIONAL	
IF LOADING FREIGHT CTN, SIGN BOX 20		BOX 22 ALWAYS REQUIRES A SIGNATURE BY TRAINED SHIPPER	
17 Cont./vehicle size & type		18 Tare mass (kg)	19 Total gross mass (including tare) (kg)
CONTAINER/VEHICLE PACKING CERTIFICATE I hereby declare that the goods described above have been packed/loaded, packed together, into the container/vehicle identified above in accordance with the applicable provisions.**) MUST BE COMPLETED AND SIGNED FOR ALL CONTAINER/VEHICLE LOADS BY PERSON RESPONSIBLE FOR PACKING/LOADING		21 RECEIVING ORGANIZATION RECEIPT Received the above number of packages/containers/trailers in apparent good order and condition, unless stated hereon: RECEIVING ORGANIZATION REMARKS:	
20 Name of company HAZMATEAM, INC		Haulier's name	22 Name of co. of shipper preparing this note HAZMATEAM
Name/status of declarant Paul Dambek, Shipper		Vehicle reg. no	Name/status of declarant Leo Traverse, Shipper
Place and date Hudson, NH, 9-JAN-2023		Signature and date	Place and date Hudson, NH, 9-JAN-2023
Signature of declarant Paul Dambek		Driver's signature	Signature of declarant Leo Traverse

NAVIGATE (CLICK):**EMERGENCY
RESPONSE
INFORMATION**

EXAMPLE 6

UN 3480: 5 Packages of rechargeable lithium batteries (no equipment), each box contains 5 kg of batteries;
UN 3090: 10 packages of non-rechargeable lithium batteries (no equipment), each box contains 3 KG of batteries.
 The 15 packages are placed on pallet and shrunk wrapped. The overpack was sent to a freight forwarder.

MULTIMODAL DANGEROUS GOODS FORM

1 Shipper/Consignor/Sender HAZMATEAM, INC 12 KIMBALL HILL ROAD HUDSON NH 03051 USA		2 Transport document number	
		3 Page 1 of 1 pages	4 Shipper's reference
		Booking Number	5 Freight forwarder's reference
6 Consignee HAZMATEAM - NETHERLANDS ZANDERSTEEN 66 2669 VL AMSTERDAM NETHERLANDS		7 Carrier	
10 Vessel	11 Port of loading	SHIPPER'S I hereby declare that the Properly described below are in all respects in accordance with the applicable international and national government regulations.	
12 Port of discharge	13 Destination	9 Additional handling instructions 24 HR ER - INFOTRAC 1-011-352-323-3500; Contract ID - 123S3B	
14 Shipping marks			
*) Number and kind of packages: description of goods			
IMDG EMS – COLUMN 15 OF DGL		Gross mass (kg) Net Cube (m³)	
UN 3480, LITHIUM ION BATTERIES, 9 IMDG EMS: F-A, S-I; DOT ERG 147 5 (4G) FIBREBOARD BOXES		50 KG	25 KG
DOT ERG – 'ORANGE BOOK' CODE			
UN 3090, LITHIUM METAL BATTERIES, 9 IMDG EMS: F-A, S-I; DOT ERG 138 10 (4G) FIBREBOARD BOXES		120 KG	30 KG
PACKAGE CODES (EX – 4G) OPTIONAL			
ABOVE PLACED INTO 1 OVERPACK			
15 Container identification No./	16 Seal number(s)	17 Cont./vehicle size & type	18 Tariff (kg)
CONTAINER/VEHICLE PACKING CERTIFICATE I hereby declare that the goods described above have been packed/loaded, packed together, into the container/vehicle identified above in accordance with the applicable provisions.**) MUST BE COMPLETED AND SIGNED FOR ALL CONTAINER/VEHICLE LOADS BY PERSON RESPONSIBLE FOR PACKING/LOADING		21 RECEIVING ORGANIZATION RECEIVED Received the above number of packages and contents unless stated hereon: RECEIVING ORGANIZATION	
20 Name of company		Haulier's name	22 Name of co. of shipper preparing this note
		Vehicle reg. no.	HAZMATEAM, INC.
Name/status of declarant		Signature and date	Name/status of declarant
			Stephanie Traverse, Shipper
Place and date			Place and date
			Hudson, NH, 1-JAN-2023
Signature of declarant		Driver's signature	Signature of declarant
			Steph Traverse

IF USING 3RD PARTY ER PHONE SERVICE, INCLUDE CONTRACT NUMBER, FOR INTERNATIONAL DO NOT USE 800 NUMBERS

BOX 22 ALWAYS REQUIRES A SIGNATURE BY TRAINED SHIPPER

NAVIGATE (CLICK):



**EMERGENCY
RESPONSE
INFORMATION**

EXAMPLE 7

2 FIBREBOARD BOXES. Each box contains 4 KG net of FULLY REGULATED lithium metal batteries shipped according to IATA PI 968 Section IA

SHIPPER'S DECLARATION FOR DANGEROUS GOODS

Shipper HAZMATEAM, INC 12 KIMBALL HILL ROAD HUDSON, NH 03051		Air Waybill No. 6980 Page 1 of 1 Pages Shipper's Reference Number (optional)				
Consignee PHOENIX PARTS 123 MAIN STREET PHOENIX, AZ 77777		AIRWAYBILL #, AIRPORTS OF DEPARTURE OR DESTINATION CAN BE COMPLETED BY AIRLINE				
This shipment is in compliance with the limitations prescribed for: (delete non-applicable) <table border="1"><tr><td>PASSENGER AIRCRAFT</td><td>ERG ONLY</td></tr></table>		PASSENGER AIRCRAFT	ERG ONLY	on must be handed to the operator. WARNING Failure to comply in all respects with the applicable Dangerous Goods Regulations may be in breach of the applicable law, subject to legal penalties.		
PASSENGER AIRCRAFT	ERG ONLY					
Airport of Departure MANCHESTER, NH		Shipment Type (delete non-applicable) <table border="1"><tr><td>NON-RADIOACTIVE</td><td>HAZARDOUS</td></tr></table>		NON-RADIOACTIVE	HAZARDOUS	
NON-RADIOACTIVE	HAZARDOUS					
Airport of Destination PHOENIX, AZ						
NATURE AND QUANTITY OF DANGEROUS GOODS						
Dangerous Goods Identification						
UN or ID No.	Proper Shipping Name	Class or Division (Subsidiary Hazard)	Packing Group	Quantity and Type of Packing	Packing Instructions	Authorization
UN 3090	LITHIUM METAL BATTERIES	9		2 FIBREBOARD BOXES x 4 KG	968	
Additional Handling Information ICAO/IATA ERG CODE: 12FZ; DOT ERG 138						
Emergency Telephone Number INFOTRAC, 800-535-5053 (CONTRACT 12345)						
I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packed, marked and labelled/placarded, and are in all respects in proper condition for transport according to the applicable international and national government regulations. I declare that all of the applicable international and national government regulations have been met.				Name of signatory Paul Dambek Date 1-JAN-2023 Signature <i>Paul J. Dambek</i> (see warning above)		

SHIPMENT CANNOT GO ON PASSENGER AIR

**ICAO/IATA ERG CODE FROM COLUMN N OF DGL;
DOT ERG – 'ORANGE BOOK' CODE**

**NUMBER OF
PACKAGES X NET
WT PER PACKAGE**

**IF USING 3RD PARTY ER PHONE SERVICE,
INCLUDE CONTRACT NUMBER**

NAVIGATE (CLICK):



**EMERGENCY
RESPONSE
INFORMATION**

EXAMPLE 8

One box contains 2 KG net of SMALL lithium metal batteries shipped according to IATA PI 968 Section IB. Cannot exceed 2.5 kg (net) per pkg.

SHIPPER'S DECLARATION FOR DANGEROUS GOODS

Shipper HAZMATEAM, INC 12 KIMBALL HILL ROAD HUDSON, NH 03051		Air Waybill No. 6980 Page 1 of 1 Pages Shipper's Reference Number (optional)				
Consignee PHOENIX PARTS 123 MAIN STREET PHOENIX, AZ 77777		AIRWAYBILL #, AIRPORTS OF DEPARTURE OR DESTINATION CAN BE COMPLETED BY AIRLINE				
Person SHIPMENT CANNOT GO ON PASSENGER AIR		WARNING Failure to comply in all respects with the applicable Dangerous Goods Regulations may be in breach of the applicable law, subject to legal penalties.				
Transport Details This shipment is with the limitations prescribed for: (delete non-applicable) <table border="1"><tr><td>PASSENGER AIRCRAFT</td><td>CARGO AIRCRAFT ONLY</td></tr></table>		PASSENGER AIRCRAFT	CARGO AIRCRAFT ONLY	Airport of Departure MANCHESTER, NH		
PASSENGER AIRCRAFT	CARGO AIRCRAFT ONLY					
Airport of Destination PHOENIX, AZ		Shipment Type (delete non-applicable) <table border="1"><tr><td>NON-RADIOACTIVE</td><td>XXXXXX</td></tr></table>		NON-RADIOACTIVE	XXXXXX	
NON-RADIOACTIVE	XXXXXX					
NATURE AND QUANTITY OF DANGEROUS GOODS						
Dangerous Goods Identification						
UN or ID No.	Proper Shipping Name	Class or Division (Subsidiary Hazard)	Packing Group	Quantity and Type of Packing	Packing Instructions	Authorization
UN 3090	LITHIUM METAL BATTERIES	9		1 FIBREBOARD BOX x 2 KG	968 IB	
ICAO/IATA ERG CODE FROM COLUMN N OF DGL; DOT ERG – 'ORANGE BOOK' CODE				NUMBER OF PACKAGES X NET WT PER PACKAGE		WHEN SHIPPING PI SECTION IB, MUST INCLUDE 'IB'. ALTERNATIVELY, CAN ADD 'IB' TO AUTHORIZATION COLUMN
Additional Handling Information ICAO/IATA ERG CODE: 12FZ; DOT ERG 138						
Emergency Telephone Number INFOTRAC, 800-535-5053 (CONTRACT 12345)						
I hereby declare that the contents of this consignment are fully and accurately described on this shipping paper, and that the consignment is properly packaged, labeled, and secured in accordance with the applicable regulations.		Name of Signatory Paul Dambek				
IF USING 3 RD PARTY ER PHONE SERVICE, INCLUDE CONTRACT NUMBER		Date 1-JAN-2023				
		Signature (see warning above) <i>Paul J. Dambek</i>				

NAVIGATE (CLICK):**EMERGENCY
RESPONSE
INFORMATION**

EXAMPLE 9

5 FIBREBOARD BOXES. Each box contains 20 KG net of FULLY REGULATED lithium ion batteries shipped according to IATA PI 965 Section IA

SHIPPER'S DECLARATION FOR DANGEROUS GOODS

Shipper HAZMATEAM, INC 12 KIMBALL HILL ROAD HUDSON, NH 03051		Air Waybill No. Page 1 of 1 Pages Shipper's Reference Number (optional)				
Consignee GIZMO EMPORIUM 19 BOWDOIN STREET BLOOMINGTON, IL 61761		AIRWAYBILL #, AIRPORTS OF DEPARTURE OR DESTINATION CAN BE COMPLETED BY AIRLINE				
SHIPMENT CANNOT GO ON PASSENGER AIR		WARNING Failure to comply in all respects with the applicable Dangerous Goods Regulations may be in breach of the applicable law, subject to legal penalties.				
TRANSPORT DETAILS This shipment is within the limitations prescribed for: (delete non-applicable) <table border="1"><tr><td>PASSENGER AIRCRAFT</td><td>CARGO AIRCRAFT ONLY</td></tr></table>		PASSENGER AIRCRAFT	CARGO AIRCRAFT ONLY	must be handed to the operator.		
PASSENGER AIRCRAFT	CARGO AIRCRAFT ONLY					
Airport of Departure		Shipment Type (delete non-applicable) <table border="1"><tr><td>NON-RADIOACTIVE</td><td>OTHER</td></tr></table>		NON-RADIOACTIVE	OTHER	
NON-RADIOACTIVE	OTHER					
Airport of Destination						
NATURE AND QUANTITY OF DANGEROUS GOODS						
Dangerous Goods Identification						
UN or ID No.	Proper Shipping Name	Class or Division (Subsidiary Hazard)	Packing Group	Quantity and Type of Packing	Packing Instructions	Authorization
UN 3480	LITHIUM ION BATTERIES	9		5 FIBREBOARD BOXES x 20 KG	965	
ICAO/IATA ERG CODE FROM COLUMN N OF DGL; DOT ERG – 'ORANGE BOOK' CODE						
NUMBER OF PACKAGES X NET WT PER PACKAGE						
Additional Handling Information ICAO/IATA ERG CODE: 12FZ; DOT ERG 147						
Emergency Telephone Number INFOTRAC, 800-535-5053 (CONTRACT 12345)						
I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labelled/placarded, and are in all respects in proper condition for transport.				Name of Signatory Stephanie Traverse		
IF USING 3RD PARTY ER PHONE SERVICE, INCLUDE CONTRACT NUMBER				Date 5-FEB-2023		
				Signature <i>Steph Traverse</i>		
				(see warnings above)		

NAVIGATE (CLICK):**EMERGENCY
RESPONSE
INFORMATION**

EXAMPLE 10

2 Fibreboard boxes each containing 9 KG (net) of SMALL lithium ion batteries shipped according to IATA PI 965 Section IB

SHIPPER'S DECLARATION FOR DANGEROUS GOODS

Shipper HAZMATEAM, INC 12 KIMBALL HILL ROAD HUDSON, NH 03051		Air Waybill No. Page 1 of 1 Pages Shipper's Reference Number (optional)				
Consignee GIZMO EMPORIUM 19 BOWDOIN STREET BLOOMINGTON, IL 61761		AIRWAYBILL #, AIRPORTS OF DEPARTURE OR DESTINATION CAN BE COMPLETED BY AIRLINE				
Permitted to the operator. SHIPMENT CANNOT GO ON PASSENGER AIR		WARNING Failure to comply in all respects with the applicable Dangerous Goods Regulations may be in breach of the applicable law, subject to legal penalties.				
TRANSPORT DETAILS This shipment is within the limitations prescribed for: (delete non-applicable) <table border="1"><tr><td>PASSENGER AIRCRAFT XXXX</td><td>CARGO AIRCRAFT ONLY</td></tr></table>		PASSENGER AIRCRAFT XXXX	CARGO AIRCRAFT ONLY	Airport of Departure		
PASSENGER AIRCRAFT XXXX	CARGO AIRCRAFT ONLY					
Airport of Destination		Shipment Type (delete non-applicable) NON-RADIOACTIVE XXXX				
NATURE AND QUANTITY OF DANGEROUS GOODS						
Dangerous Goods Identification						
UN or ID No.	Proper Shipping Name	Class or Division (Subsidiary Hazard)	Packing Group	Quantity and Type of Packing	Packing Instructions	Authorization
UN 3480	LITHIUM ION BATTERIES	9		2 FIBREBOARD BOXES x 9 KG	965 IB	
Additional Handling Information ICAO/IATA ERG CODE: 12FZ; DOT ERG 147				NUMBER OF PACKAGES X NET WT PER PACKAGE		
Emergency Telephone Number INFOTRAC, 800-535-5053 (CONTRACT 12345)				WHEN SHIPPING PI SECTION IB, MUST INCLUDE 'IB'. ALTERNATIVELY, CAN ADD 'IB' TO AUTHORIZATION COLUMN		
I hereby declare that all of the applicable air transport requirements have been met. IF USING 3RD PARTY ER PHONE SERVICE, INCLUDE CONTRACT NUMBER				Name of Signatory Stephanie Traverse Date 11-JAN-2023 Signature <i>Steph Traverse</i> (see warning above)		

NAVIGATE (CLICK):**EMERGENCY
RESPONSE
INFORMATION**

EXAMPLE 11

10 boxes of UN 3481, LITHIUM ION BATTERIES CONTAINED IN EQUIPMENT. Shipped according to IATA PI 967 Section I. Each box contains 4 KG (net) of rechargeable lithium batteries. All 10 boxes placed onto a pallet and shrunk wrapped (i.e., 'OVERPACK').

SHIPPER'S DECLARATION FOR DANGEROUS GOODS

Shipper HAZMATEAM, INC 12 KIMBALL HILL ROAD HUDSON, NH 03051		Air Waybill No. Page 1 of 1 Pages Shipper's Reference Number (optional)					
Consignee GIZMO EMPORIUM 19 BOWDOIN STREET BLOOMINGTON, IL 61761		AIRWAYBILL #, AIRPORTS OF DEPARTURE OR DESTINATION CAN BE COMPLETED BY AIRLINE					
Per: PASSENGER AIR LIMIT PER PACKAGE = 5 KG		WARNING Failure to comply in all respects with the applicable Dangerous Goods Regulations may be in breach of the applicable law, subject to legal penalties.					
TRANSPORT DETAILS This shipment is within the limitations prescribed for: (delete non-applicable) <table border="1"><tr><td>PASSENGER AND CARGO AIRCRAFT</td><td>CARGO AIRCRAFT ONLY XXXX</td></tr></table>		PASSENGER AND CARGO AIRCRAFT	CARGO AIRCRAFT ONLY XXXX	Airport of Departure			
PASSENGER AND CARGO AIRCRAFT	CARGO AIRCRAFT ONLY XXXX						
Airport of Destination		Shipment Type (delete non-applicable) NON-RADIOACTIVE XXXXXX					
NATURE AND QUANTITY OF DANGEROUS GOODS							
Dangerous Goods Identification							
UN or ID No.	Proper Shipping Name	Class or Division (Subsidiary Hazard)	Packing Group	Quantity and Type of Packing	Packing Instructions	Authorization	
UN 3481	LITHIUM ION BATTERIES CONTAINED IN EQUIPMENT	9		10 FIBREBOARD BOXES x 4 KG OVERPACK USED	967		
ICAO/IATA ERG CODE FROM COLUMN N OF DGL; DOT ERG – 'ORANGE BOOK' CODE				NUMBER OF PACKAGES X NET WT PER PACKAGE			MUST USE PHRASE 'OVERPACK USED' WHEN PACKAGES WITHIN AN OVERPACK
Additional Handling Information ICAO/IATA ERG CODE: 12FZ; DOT ERG 147							
Emergency Telephone Number INFOTRAC, 800-535-5053 (CONTRACT 12345)							
IF USING 3 RD PARTY ER PHONE SERVICE, INCLUDE CONTRACT NUMBER				Name of Signatory Mac Jones Date 19-JAN-2023 Signature <i>M. Jones</i> (see warning above)			

NAVIGATE (CLICK):



EMERGENCY
RESPONSE
INFORMATION

EXAMPLE 12

4 packages of UN 3091, Lithium metal batteries packed with equipment. Shipped according to IATA PI 969 Section I. Each package contains 6 KG (net) of non-rechargeable lithium batteries and equipment (batteries not installed). Shipped out of USA.

SHIPPER'S DECLARATION FOR DANGEROUS GOODS

Shipper HAZMATEAM, INC 12 KIMBALL HILL ROAD HUDSON, NH 03051 USA		Air Waybill No. Page 1 of 1 Pages Shipper's Reference Number (optional)			
Consignee BATTERIES ITALIA VIA CASTRO PRETORIO 199 OFFICES VIA GAETA 99 00188 ROME ITALY		AIRWAYBILL #, AIRPORTS OF DEPARTURE OR DESTINATION CAN BE COMPLETED BY AIRLINE			
This shipment is within the limitations prescribed for: (delete non-applicable) <table border="1"><tr><td>PASSENGER AIRCRAFT</td><td>CARGO AIRCRAFT ONLY</td></tr></table>		PASSENGER AIRCRAFT	CARGO AIRCRAFT ONLY	WARNING Failure to comply in all respects with the applicable Dangerous Goods Regulations may be in breach of the applicable law, subject to legal penalties.	
PASSENGER AIRCRAFT	CARGO AIRCRAFT ONLY				
Airport of Departure		Shipment Type (delete non-applicable) <table border="1"><tr><td>NON-RADIOACTIVE</td><td>HAZARDOUS</td></tr></table>		NON-RADIOACTIVE	HAZARDOUS
NON-RADIOACTIVE	HAZARDOUS				
NATURE AND QUANTITY OF DANGEROUS GOODS					
Dangerous Goods Identification					
UN or ID No.	Proper Shipping Name	Class or Division (Subsidiary Hazard)	Quantity and Type of Packing	Packing Instructions	Authorization
UN 3091	LITHIUM METAL BATTERIES PACKED WITH EQUIPMENT	9	4 FIBREBOARD BOXES x 6 KG	969	
Additional Handling Information ICAO/IATA ERG CODE: 12FZ; DOT ERG 138					
Emergency Telephone Number INFOTRAC, 1-011-352-323-3500 (CONTRACT 12345)					
I hereby declare that the contents of this consignment are fully and accurately described, marked, labeled, and packaged in accordance with the applicable regulations.		Name of Signatory Paul Dambek Date 12-FEB-2023 Signature <i>Paul J. Dambek</i> (see warning above)			

NAVIGATE (CLICK):



EMERGENCY
RESPONSE
INFORMATION

EXAMPLE 13

2 packages (plywood boxes). Each box contains 1 robot with a lithium metal battery installed. The robot weighs 55 KG. The robot moves finished goods in a warehouse. Shipped out of USA via international vessel.

MULTIMODAL DANGEROUS GOODS FORM

1 Shipper/Consignor/Sender HAZMATEAM, INC 12 KIMBALL HILL ROAD HUDSON NH 03051 USA		2 Transport document number	
		3 Page 1 of 1 pages	4 Shipper's reference
		Booking Number	5 Freight forwarder's reference
6 Consignee BRITISH ROBOT COMPANY WESTMINSTER, LONDON, SW1A 1AA, UNITED KINGDOM		7 Carrier	
		IF USING 3RD PARTY ER PHONE SERVICE, INCLUDE CONTRACT NUMBER, FOR INTERNATIONAL DO NOT USE 800 NUMBERS	
10 Vessel	11 Port of loading	SHIPPER'S DECLARATION I hereby declare that the contents of this container are properly marked and labelled/placarded and are in all respects in proper condition for transport in accordance with the applicable international and national government regulations.	
12 Port of discharge	13 Destination	9 Additional handling instructions 24 HR ER - INFOTRAC 1-011-352-323-3500; Contract ID - 123S3B	
14 Shipping marks		*) Number and kind of packages: description of goods UN 3171, BATTERY-POWERED VEHICLE, 9, IMDG EMS: F-A, S-I; DOT ERG 138 2 PLYWOOD BOXES	
		Gross mass (kg)	Net 110 KG Cube (m³)
15 Container identification No./		16 Seal number(s)	17 Cont./vehicle size & type
18		21 RECEIVING ORGANIZATION Received the above number of packages unless stated hereon: RECEIVING	
CONTAINER/VEHICLE PACKING CERTIFICATE I hereby declare that the goods described above have been packed/loaded, packed together, into the container/vehicle identified above in accordance with the applicable provisions.**) MUST BE COMPLETED AND SIGNED FOR ALL CONTAINER/VEHICLE LOADS BY PERSON RESPONSIBLE FOR PACKING/LOADING		22 Name of co. of shipper preparing this note HAZMATEAM	
20 Name of company		Hauler's name	Name/status of declarant Leo Traverse, Shipper
		Vehicle reg. no.	Place and date Hudson, NH, 6-JAN-2023
Name/status of declarant		Signature and date	Signature of declarant Leo Traverse
Place and date		Driver's signature	
Signature of declarant			

IMDG EMS –
COLUMN 15
OF DGL

DOT ERG –
'ORANGE
BOOK' CODE

UN
PACKAGING
NOT R'D

**BOX 22 ALWAYS
REQUIRES A
SIGNATURE BY
TRAINED SHIPPER**

NAVIGATE (CLICK):



**EMERGENCY
RESPONSE
INFORMATION**

EXAMPLE 14

3 packages (fibreboard boxes). Each box contains 1 bicycle with a lithium ion battery installed. Each bicycle weighs 20 KG. Shipped air transport.

SHIPPER'S DECLARATION FOR DANGEROUS GOODS								
Shipper HAZMATEAM, INC 12 KIMBALL HILL ROAD HUDSON, NH 03051			Air Waybill No. Page 1 of 1 Pages Shipper's Reference Number (optional)					
Consignee NEW AGE BICYCLE INC 1214 COMMERCE BLVD ST. PAUL, MN 55105			AIRWAYBILL #, AIRPORTS OF DEPARTURE OR DESTINATION CAN BE COMPLETED BY AIRLINE					
Permitted for PERMITTED FOR PASSENGER AIR			Handed to the operator.		WARNING			
TRANSPORT DETAILS			Failure to comply in all respects with the applicable Dangerous Goods Regulations may be in breach of the applicable law, subject to legal penalties.					
This shipment is within the limitations prescribed for: (delete non-applicable) <table border="1"><tr><td>PASSENGER AND CARGO AIRCRAFT</td><td>CARGO AIRCRAFT ONLY XXXX</td></tr></table>			PASSENGER AND CARGO AIRCRAFT	CARGO AIRCRAFT ONLY XXXX	Airport of Departure			
PASSENGER AND CARGO AIRCRAFT	CARGO AIRCRAFT ONLY XXXX							
Airport of Destination			Shipment Type (delete non-applicable) <table border="1"><tr><td>NON-RADIOACTIVE</td><td>XXXXXX</td></tr></table>				NON-RADIOACTIVE	XXXXXX
NON-RADIOACTIVE	XXXXXX							
NATURE AND QUANTITY OF DANGEROUS GOODS								
Dangerous Goods Identification								
UN or ID No.	Proper Shipping Name	Class or Division (Subsidiary Hazard)	Packing Group	Quantity and Type of Packing	Packing Instructions	Authorization		
UN 3171	BATTERY-POWERED VEHICLE	9		3 FIBREBOARD BOXES x 20 KG	952			
ICAO/IATA ERG CODE FROM COLUMN N OF DGL; DOT ERG – 'ORANGE BOOK' CODE				NUMBER OF PACKAGES X WT OF EACH VEHICLE PER PACKAGE				
Additional Handling Information ICAO/IATA ERG CODE: 9L; DOT ERG 147								
Emergency Telephone Number INFOTRAC, 800-535-5053 (CONTRACT 12345)								
I hereby declare that the contents of this consignment are fully and accurately described, marked, transported, regulated, and have been accepted for transport.			Name of Signatory		Stephanie Traverse			
IF USING 3 RD PARTY ER PHONE SERVICE, INCLUDE CONTRACT NUMBER			Signature		11-MAR-2023			
			(see warning above)		Steph Traverse			

NAVIGATE (CLICK):



EMERGENCY
RESPONSE
INFORMATION

EMERGENCY RESPONSE INFORMATION

When shipping papers (Bill of lading forms, Dangerous Goods Declaration forms) are required, all lithium battery shipments to, from or through the United States must have written emergency response information accompany the shipment. This written document is typically either a SDS for the material or the applicable ERG pages from the DOT Emergency Response Guidebook (i.e., ‘Orange Book’). Applicable ERG Codes from the Orange Book are: Guide 138 (Lithium metal batteries) and Guide 147 (Lithium Ion batteries).

On each shipping paper example provided in this guide, either DOT ERG GUIDE 138 or 147 is referenced. Simply writing the guide number only on the BOL/declaration does not meet the emergency response information requirements described in [49 CFR 172.602](#). Written information (the SDS or ERG pages) must be provided along with the shipping paper.

All shipping papers for shipments from, to or through the United States must also have 24-hour emergency telephone number, as described in [49 CFR 172.604](#). Each shipping paper example provided in this guide illustrates placement of the ER phone number.

The shipping paper examples provided in this guide also reference emergency response guidebooks used by personnel on vessels or aircraft. The vessel and aircraft guides referenced are:

IMDG CODE: The EMS Code referenced in column 15 of the IMDG Dangerous Goods List (DGL) is listed in *“The EmS Guide – Emergency Response Procedures for Ships Carrying Dangerous Goods”*.

IATA DGR: The IACO/IATA ERG Code referenced in Column N of the IATA DGR Dangerous Goods List (DGL) is the Emergency Response Drill Code as found in the International Civil Aviation Organization (IACO) document, *“The Emergency Response Guidance for Aircraft Incidents Involving Dangerous Goods”* (ICAO Doc. 9481-AN/928).

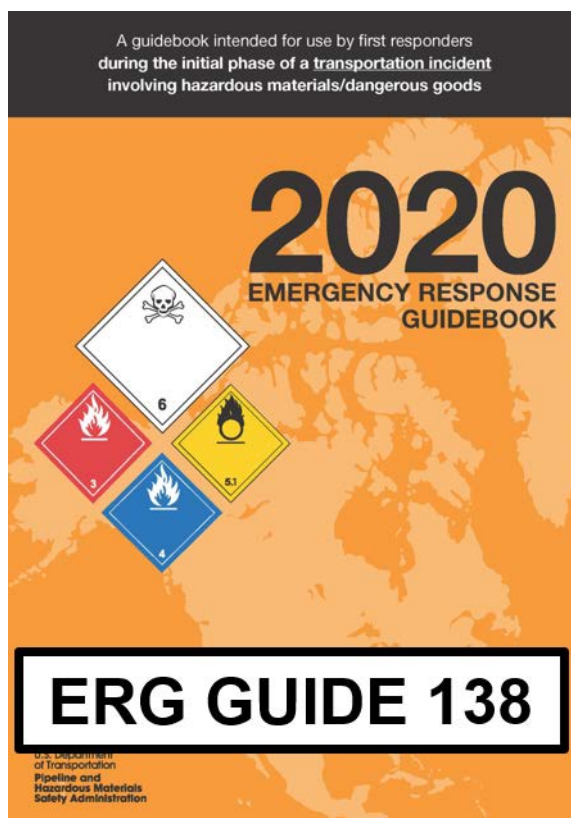
The IMDG Code and IATA DGR emergency response information described on the shipping paper examples in this guide are for the benefit of the operator of the vessel or aircraft.

NAVIGATE (CLICK):



EMERGENCY RESPONSE GUIDE #138 – NEXT PAGE

(THIS DOCUMENT OR A SDS FOR BATTERY MUST ACCOMPANY ALL FULLY REGULATED SHIPMENTS OF LITHIUM METAL BATTERIES)



NAVIGATE (CLICK):



POTENTIAL HAZARDS

FIRE OR EXPLOSION

- Produce flammable gases on contact with water.
- May ignite on contact with water or moist air.
- Some react vigorously or explosively on contact with water.
- May be ignited by heat, sparks or flames.
- May re-ignite after fire is extinguished.
- Some are transported in highly flammable liquids.
- Runoff may create fire or explosion hazard.

HEALTH

- Inhalation or contact with vapors, substance or decomposition products may cause severe injury or death.
- May produce corrosive solutions on contact with water.
- Fire will produce irritating, corrosive and/or toxic gases.
- Runoff from fire control or dilution water may cause environmental contamination.

PUBLIC SAFETY

- **CALL 911. Then call emergency response telephone number on shipping paper.** If shipping paper not available or no answer, refer to appropriate telephone number listed on the inside back cover.
- Keep unauthorized personnel away.
- Stay upwind, uphill and/or upstream.
- Ventilate closed spaces before entering, but only if properly trained and equipped.

PROTECTIVE CLOTHING

- Wear positive pressure self-contained breathing apparatus (SCBA).
- Wear chemical protective clothing that is specifically recommended by the manufacturer **when there is NO RISK OF FIRE.**
- Structural firefighters' protective clothing provides thermal protection **but only limited chemical protection.**

EVACUATION

Immediate precautionary measure

- Isolate spill or leak area in all directions for at least 50 meters (150 feet) for liquids and at least 25 meters (75 feet) for solids.

Spill

- For **highlighted materials**: see Table 1 - Initial Isolation and Protective Action Distances.
- For non-highlighted materials: increase the immediate precautionary measure distance, in the downwind direction, as necessary.

Fire

- If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also, consider initial evacuation for 800 meters (1/2 mile) in all directions.



In Canada, an Emergency Response Assistance Plan (ERAP) may be required for this product. Please consult the shipping paper and/or the ERAP Program Section (page 390).

EMERGENCY RESPONSE

FIRE

- **DO NOT USE WATER OR FOAM.**

Small Fire

- Dry chemical, soda ash, lime or sand.

Large Fire

- DRY sand, dry chemical, soda ash or lime or withdraw from area and let fire burn.
- If it can be done safely, move undamaged containers away from the area around the fire.

Fire Involving Metals or Powders (Aluminum, Lithium, Magnesium, etc.)

- Use dry chemical, DRY sand, sodium chloride powder, graphite powder or class D extinguishers; in addition, for Lithium you may use Lith-X® powder or copper powder. Also, see GUIDE 170.

Fire Involving Tanks or Car/Trailer Loads

- Fight fire from maximum distance or use unmanned master stream devices or monitor nozzles.
- Do not get water inside containers.
- Cool containers with flooding quantities of water until well after fire is out.
- Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank.
- ALWAYS stay away from tanks engulfed in fire.

SPILL OR LEAK

- ELIMINATE all ignition sources (no smoking, flares, sparks or flames) from immediate area.
- Do not touch or walk through spilled material.
- Stop leak if you can do it without risk.
- Use water spray to reduce vapors or divert vapor cloud drift. Avoid allowing water runoff to contact spilled material.
- **DO NOT GET WATER on spilled substance or inside containers.**

Small Spill

- Cover with DRY earth, DRY sand or other non-combustible material followed with plastic sheet to minimize spreading or contact with rain.
- Dike for later disposal; do not apply water unless directed to do so.

Powder Spill

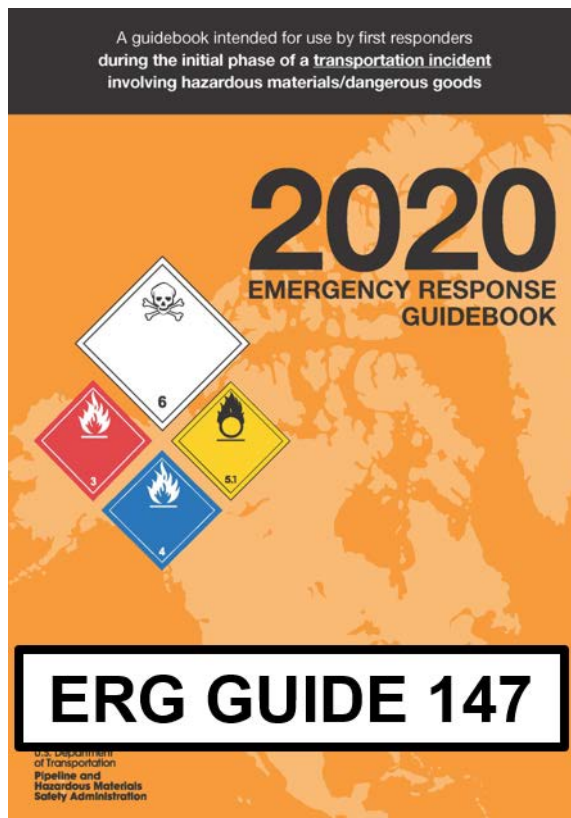
- Cover powder spill with plastic sheet or tarp to minimize spreading and keep powder dry.
- **DO NOT CLEAN-UP OR DISPOSE OF, EXCEPT UNDER SUPERVISION OF A SPECIALIST.**

FIRST AID

- Call 911 or emergency medical service.
- Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.
- Move victim to fresh air if it can be done safely.
- Give artificial respiration if victim is not breathing.
- Administer oxygen if breathing is difficult.
- Remove and isolate contaminated clothing and shoes.
- In case of contact with substance, wipe from skin immediately; flush skin or eyes with running water for at least 20 minutes.
- Keep victim calm and warm.

EMERGENCY RESPONSE GUIDE #147 – NEXT PAGE

(THIS DOCUMENT OR A SDS FOR BATTERY MUST ACCOMPANY ALL FULLY REGULATED SHIPMENTS OF LITHIUM ION BATTERIES)



NAVIGATE (CLICK):



GUIDE 147

LITHIUM ION BATTERIES

POTENTIAL HAZARDS

FIRE OR EXPLOSION

- Lithium ion batteries contain flammable liquid electrolyte that may vent, ignite and produce sparks when subjected to high temperatures ($> 150^{\circ}\text{C}$ (302°F)), when damaged or abused (e.g., mechanical damage or electrical overcharging).
- May burn rapidly with flare-burning effect.
- May ignite other batteries in close proximity.

HEALTH

- Contact with battery electrolyte may be irritating to skin, eyes and mucous membranes.
- Fire will produce irritating, corrosive and/or toxic gases.
- Burning batteries may produce toxic hydrogen fluoride gas (see GUIDE 125).
- Fumes may cause dizziness or asphyxiation.

PUBLIC SAFETY

- **CALL 911. Then call emergency response telephone number on shipping paper.** If shipping paper not available or no answer, refer to appropriate telephone number listed on the inside back cover.
- Keep unauthorized personnel away.
- Stay upwind, uphill and/or upstream.
- Ventilate closed spaces before entering, but only if properly trained and equipped.

PROTECTIVE CLOTHING

- Wear positive pressure self-contained breathing apparatus (SCBA).
- Structural firefighters' protective clothing provides thermal protection **but only limited chemical protection.**

EVACUATION

Immediate precautionary measure

- Isolate spill or leak area for at least 25 meters (75 feet) in all directions.

Large Spill

- Consider initial downwind evacuation for at least 100 meters (330 feet).

Fire

- If rail car or trailer is involved in a fire, ISOLATE for 500 meters (1/3 mile) in all directions; also initiate evacuation including emergency responders for 500 meters (1/3 mile) in all directions.

EMERGENCY RESPONSE

FIRE

Small Fire

- Dry chemical, CO₂, water spray or regular foam.

Large Fire

- Water spray, fog or regular foam.
- If it can be done safely, move undamaged containers away from the area around the fire.

SPILL OR LEAK

- ELIMINATE all ignition sources (no smoking, flares, sparks or flames) from immediate area.
- Do not touch or walk through spilled material.
- Absorb with earth, sand or other non-combustible material.
- Leaking batteries and contaminated absorbent material should be placed in metal containers.

FIRST AID

- Call 911 or emergency medical service.
- Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.
- Move victim to fresh air if it can be done safely.
- Give artificial respiration if victim is not breathing.
- Administer oxygen if breathing is difficult.
- Remove and isolate contaminated clothing and shoes.
- In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes.



PACKAGE TEST REQUIREMENTS

Most fully regulated packages of lithium batteries and cells require UN Specification packaging.

All packages of small and medium lithium batteries require some degree of testing. However, small and medium lithium batteries and cells do not require UN Specification packaging

The following pages summarizes package test requirement for the different sizes of batteries shipped via ground (USA), air and vessel.

HAZMATEAM, INC. offers package testing services for small and medium lithium batteries. Call 603-882-1112 for more information or for a quote.

To determine package test requirements, select (click) one of the following





















- [Small or Medium lithium batteries shipped ground domestic USA](#)
- [Small lithium batteries shipped international air](#)
- [Small lithium batteries shipped international vessel](#)
- [Fully regulated, damaged or prototype lithium batteries requiring UN specification packaging](#)

NAVIGATE (CLICK):





SMALL AND MEDIUM LITHIUM BATTERIES SHIPPED USA GROUND¹

PACKAGE	VIBRATION TEST ²	DROP TEST ³
Small UN 3480		
Small UN 3090		
Small UN 3481, "packed with"		
Small UN 3481, "contained in"		
Small UN 3091, "packed with"		
Small UN 3091, "contained in"		
Medium UN 3480		
Medium UN 3090		
Medium UN 3481, "packed with"		
Medium UN 3481, "contained in"		
Medium UN 3091, "packed with"		
Medium UN 3091, "contained in"		

1- Does not require UN Specification packaging

2- 173.185 (b)(1) references 49 CFR 173 Subpart B. 49 CFR 173 Subpart B includes 49 CFR 173.24a(a)(5) – vibration testing













3- 49 CFR 173.185 (c)(2)

NAVIGATE (CLICK):





SMALL LITHIUM BATTERIES SHIPPED AIR¹

PACKAGE	VIBRATION TEST ²	DROP TEST ³	STACK TEST ⁴
Small UN 3480			
Small UN 3090			
Small UN 3481, "packed with"			
Small UN 3481, "contained in"			
Small UN 3091, "packed with"			
Small UN 3091, "contained in"			

1- Does not require UN Specification packaging

2- Section IB of IATA PI 965 & 968 and Section II of PI 966,967,969 & 970 requires compliance with IATA DGR 5.0.2.4. IATA 5.0.2.4 requires shippers to ensure package is capable of withstanding vibrations normally encountered in transport.

3- IATA DGR, PI 965 Section IB, PI 966 Section II, PI 968 Section IB and PI 969 Section II

4- IATA DGR, PI 965 Section IB and PI 968 Section IB

NAVIGATE (CLICK):



SMALL LITHIUM BATTERIES SHIPPED VESSEL¹



PACKAGE	VIBRATION TEST ²	DROP TEST ³
Small UN 3480		
Small UN 3090		
Small UN 3481, "packed with"		
Small UN 3481, "contained in"		
Small UN 3091, "packed with"		
Small UN 3091, "contained in"		

1- Does not require UN Specification packaging

2- IMDG Special Provision 188 paragraph 4 references IMDG 4.1.1.1. IMDG 4.1.1.1 requires shippers to ensure package is capable of withstanding vibrations normally encountered in transport.

3- IMDG Special Provision 188 paragraph 7




















NAVIGATE (CLICK):





PACKAGING¹

FULL REGULATED, DAMAGED OR PROTOTYPE LITHIUM BATTERIES REQUIRING

PACKAGE ²	AIR TRANSPORT 	VESSEL TRANSPORT 	DOMESTIC USA GROUND TRANSPORT 
Fully regulated UN 3480			
Fully regulated UN 3090			
Fully regulated UN 3481, “packed with”			
Fully regulated UN 3481, “contained in”	Note 3	Note 4	Note 5
Fully regulated UN 3091, “packed with”			
Fully regulated UN 3091, “contained in”	Note 3	Note 4	Note 5
Damaged or defective batteries	Note 6	 Note 7	 Note 8
Prototype Batteries	Note 9	 Note 10	 Note 11
Lithium batteries weighing 12 KG or more with strong, impact resistant casing	Note 12	Note 13	Note 14

- 1- Unless otherwise specified, must meet PG II performance standards (“X” or “Y” rated packages).
- 2- Assemble according to package closure instructions
- 3- UN packaging not required. IATA 5.0.2.4 requires shippers to ensure package is capable of withstanding vibrations normally encountered in transport.
- 4- UN packaging not required. IMDG 4.1.1.1 requires shippers to ensure package is capable of withstanding vibrations normally encountered in transport.
- 5- UN packaging not required. 49 CFR 173.24a(a)(5) requires shippers to ensure package is capable of withstanding vibrations normally encountered in transport.
- 6- Forbidden for air transport, see IATA SP A154
- 7- Packaged according to IMDG P908
- 8- Packaged according to 49 CFR 173.185 (f) at the PG I performance level (“X” package)
- 9- Forbidden for air transport, unless approval from state of origin – see IATA SP A88
- 10- Packaged according to IMDG P910
- 11- Packaged according to 49 CFR 173.185 (e) at the PG I performance level (“X” package)
- 12- UN 3480 and UN 3090 weighing 12 kg or more with strong, impact resistant casing does not require UN packaging. Must have gov’t approval. Otherwise, use UN package. See IATA PI 965 and PI 968.
- 13- UN 3480 and UN 3090 weighing 12 kg or more with strong, impact resistant casing does not require UN packaging. See IMDG P903, paragraph (2).
- 14- UN 3480 and UN 3090 weighing 12 kg or more with strong, impact resistant casing does not require UN packaging. See 49 CFR 173.185 (b)(4)

NAVIGATE (CLICK):



DISCLAIMER

This guide provides a summary of Dangerous Goods (DG) regulatory transportation requirements and does not address product use. HAZMATEAM, INC shall not be held liable for any damage resulting from handling or from contact with the products described in this guide.

The user of this guide must be trained and use the classification, packaging instructions and guidance in the most recent versions of the applicable DG regulations (IMDG, IATA, ICAO, 49 CFR and/or other country specific DG regulations). The user must also consult the battery/equipment manufacturer for item specific transportation safety requirements (including verification a lithium battery has been UN tested). This guide does not address waste shipments: consult federal and state waste regulations for shipping requirements.

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