



Dangerous Goods Safety Advisers Ltd

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6 Keswick Road, Solihull, West Midlands B92 7PJ



2009 saw the introduction of a New Identification for Lithium Batteries into the Road – Sea – Air Modal Regulations:-

UN3090, Lithium Metal Batteries, 9

UN3091, Lithium Ion Batteries, 9

The “Default” **Packing, Marking & Labelling** for these Classifications is that Batteries are packed in “UN” certified packaging & Equipment is packed into “Packages that are NOT certified but meet Performance Level II criteria

The packages are marked with the Proper Shipping Name, UN Number and display Class 9 Labels.

All these packages **MUST** be declared and documented for carriage. There are no Ltd Qty provisions.

Within the Modal Regulations there is an exemption common to all modes that “EXEMPTS” packages from displaying the Class 9 Label // UN number// Proper Shipping Name

UN3090 & UN3091 exemptions are within Special Provision 188 and Packing Instruction Part 1 qualifying batteries and equipment will now be eligible for shipment as “EXEMPTED QUANTITIES” and marked accordingly”

All these packages **MUST** be declared for carriage

This “Exempted” form for marking/labelling is **NOT prescribed in ADR – IMDG but is within IATA.**

Within ADR & IMDG the requirement for “Exempted Batteries” is that the package is marked/labelled:-

- (f) **Except for packages containing no more than four cells installed in equipment or no more than two batteries installed in equipment, each package shall be marked with the following:**
 - (i) an indication that the package contains "lithium metal" or "lithium ion" cells or batteries, as appropriate;
 - (ii) an indication that the package shall be handled with care and that a flammability hazard exists if the package is damaged;
 - (iii) an indication that special procedures shall be followed in the event the package is damaged, to include inspection and repacking if necessary; and
 - (iv) a telephone number for additional information;

Within IATA the Marking/Labelling requirement is specific:-

Each package containing more than four cells or more than two batteries installed in equipment must be labelled with a lithium battery handling label (Figure 7.4.I).

□ 7.4.8 Lithium Battery Label

FIGURE 7.4.I

Lithium Battery Label

* Place for “Lithium ion battery” or “Lithium metal battery”, as applicable

Name: Lithium Battery Label

Minimum dimensions: 120 × 110 mm

Colour: The border of the label must have red diagonal hatchings. Text and symbols black on a white background.

Registered Office: The Lakes, 6 Keswick Road, Solihull, West Midlands, B92 7PJ Registered Number England: 3824531

Directors: R.L.Kagan, FlntSP, FlntD, MIMgt, MIEx, DGSA, A.R.Williams, FlntFP, DGSA, C.Savigar, FlntFP (Grad), MIEx DGSA. All consultation given on the basis of our letter of engagement supplied on application.

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THIS LABEL IS NOT A REQUIREMENT OF PACKAGES THAT ARE SUBJECT TO CLASS 9 LABELLING REQUIREMENTS

Example there is no reference to this in Packing Instructions by Airfreight that relate to Lithium Batteries-

Part 2

Part 2 requirements apply to each cell or battery type that has been determined to meet the criteria for assignment to Class 9. Each cell or battery must:

1. Be of the type proven to meet the requirements of each test in the UN Manual of Tests and Criteria, Part III, subsection 38.3.
2. Incorporate a safety venting device or be designed to preclude a violent rupture under conditions normally incident to transport and be equipped with an effective means of preventing external short circuits. Each battery containing cells or series of cells connected in parallel must be equipped with an effective means, as necessary, to prevent dangerous reverse current flow (e.g. diodes, fuses). Cells with a liquid cathode containing sulphur dioxide, sulphuryl chloride or thionyl chloride which have been discharged to the extent that the open circuit voltage is less than the lower of:

- 2 volts; or
 - two-thirds of the voltage of the undischarged cell;
- and batteries containing one or more such cells, are forbidden for transport.

General requirements The General Packing Requirements of 5.0.2 must be met. Additional requirements

- outer packaging must be waterproof or made waterproof through the use of a liner, such as a plastic bag unless the equipment is made waterproof by nature of its construction;
- the equipment must be secured against movement within the outer packaging and be packed so as to prevent accidental operation during air transport;
- the quantity of lithium metal contained in any piece of equipment must not exceed 12 g per cell and 500 g per battery;

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