



# Dangerous Goods Label Placement

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## Overview

This document contains information relating to the placement of dangerous goods labels as identified within *Specification for the Environment – Dangerous Goods*, 914-1769-xx. This document supports and must be used in conjunction with that specification.

## Audience

This document is for Manufacturing, External Manufacturers, and Shipping and Receiving.

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## 1. Introduction

### Purpose

This document defines the label placement for products classified as 'Dangerous Goods' according to International Civil Aviation Organization (ICAO), International Air Transport Association (IATA), International Maritime Dangerous Goods (IMDG) Code, and United States Department of Transportation (DOT) Dangerous Goods Regulations (DGRs).

This document must be used in conjunction with *Specification for the Environment – Dangerous Goods*, 914-1769-xx, which provides detailed requirements for dangerous goods.

### Applicability

This requirement applies to all hardware products designed and manufactured by Oracle, as well as all products purchased from Oracle's Original Equipment Manufacturer (OEM), External Manufacturer (EM), and other third party suppliers which are shipped on behalf of Oracle.

### Area of Responsibility

The Oracle Dangerous Goods team is responsible for maintaining this document.

### Precedence

The product specification must take precedence over the requirements specified in this document. Label locations defined in product packaging instructions take precedence over this document.

## 2. General

Labeling is always required regardless of whether shipment is by ground, ocean or air. When tendered for transport shipment must be in full compliance with ICAO, IATA, IMDG and DOT regulations depending on the mode of transportation.

### Multiple Dangerous Goods Labels

Some products can be classified in more than one dangerous goods category. In this case, all requirements of each category must be met. For example, a rack system can be a magnetized material and also have Electrical Double Layer Capacitors and Lithium Batteries; in this case the shipment must be treated according to *Section 2, Magnetized Material – UN2807, Class 9 – Label Placement*, below, *Section 3, Capacitors, Electric Double Layer – UN3499, Class 9 – Label Placement*, on page 5, and *Section 4, Lithium Battery – Label Placement*, on page 7.

### Label Quantity

Follow label quantity requirements as defined in each category.

### Label Location

When multiple dangerous goods labels are required for a product, each label must be placed and oriented according to the requirements defined in the category.

All dangerous goods labels must be placed on the same side or panel of the container contiguous with all shipping and handling labels.

It is preferred that dangerous goods labels be placed a minimum of 2 inches (50 mm) away from any other label or container artwork, but this may not be possible for some packages.

### 3. Magnetized Material – UN2807, Class 9 – Label Placement

This section defines the UN2807, Magnetized Material label (267-1924-01) placement requirements whenever labels are required by Oracle, DOT, ICAO, IATA, or IMDG. Consult the appropriate regulations for details on current material limits and product classifications.

## Magnetic Testing and Product Classification

### Magnetic Testing

Products tested and determined to be classified as 'Magnetized Material' must be labeled appropriately. These requirements apply to Oracle's products tested for magnetic field generation according to IATA DGR Packing Instruction 953.

### Product Classification

- Products not classified as 'Magnetized Material' cannot be labeled.
- Products classified as 'Magnetized Material' must be labeled according to this specification.
- Products classified as 'Forbidden' are not permitted to be transported by air.

### Label Quantity

One UN2807, Magnetized Material label (267-1924-01) must be applied to products classified as 'Magnetized Material'. Refer to Figure 2-1, UN2807, Magnetized Material Label (267-1924-01), below.

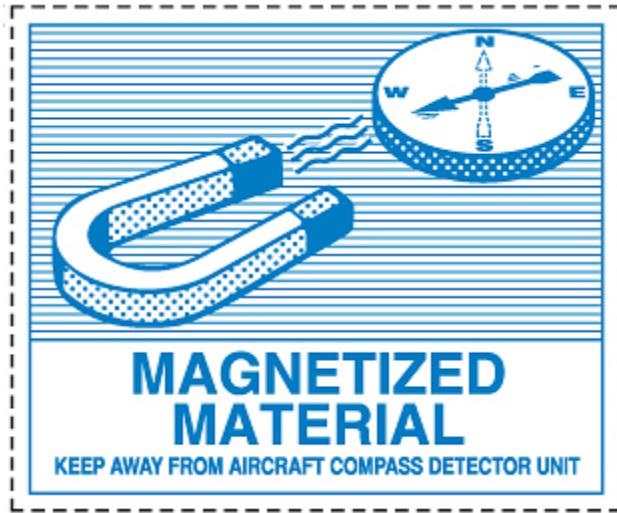


Figure 2-1 UN2807, Magnetized Material Label (267-1924-01)

### Label Location

The UN2807, Magnetized Material label (267-1924-01) must be applied on the vertical surface of the package adjacent to the shipping label.

**NOTE 1: Dangerous goods labels cannot be affixed to the top or bottom surface of a package.**

The vertical edge of the label must be parallel to the vertical edge of the package so that the text is legible when the package is placed upright.

**NOTE 2: Labels must not be affixed in such a manner that parts of the same label appear on different surfaces of the package.**

The UN2807, Magnetized Material label (267-1924-01) must not cover or touch other labels, handling symbols, or other printed container artwork. It is preferred that the label be placed 2 inches (50 mm) away from any other label or container artwork, but this may not be possible for some packages. Do not cover handling symbols or other printed container artwork, if possible.

**NOTE 3: Dangerous goods labels cannot be obscured by banding, edge protectors, or any other labels or markings.**

#### 4. Capacitors, Electric Double Layer – UN3499, Class 9 – Label Placement

This section defines the Class 9 Miscellaneous DG Label (7317326) placement requirements for UN3499 Electric Double Layer Capacitor (EDLC) whenever labels are required by Oracle, DOT, ICAO, IATA, or IMDG. Consult the appropriate regulations for details on current material limits and product classifications.

This requirement applies to any shipping packages containing EDLC's with an electrolyte meeting the classification criteria of any class or division of dangerous goods that are not installed in equipment and with an energy storage capacity of more than 10 Wh per capacitor. Notify the DG team ([dg\\_questions\\_us\\_grp@oracle.com](mailto:dg_questions_us_grp@oracle.com)) for determination of the Dangerous Goods status for use of EDLC's.

**NOTE 4: Electrical Double Layer Capacitors, EDLC's are also referred to as Ultra Capacitors or Super Capacitors.**

#### Label Quantity

One Class 9 Miscellaneous DG Label (7317326) must be applied to the shipping package of EDLC's containing an electrolyte meeting the classification criteria of any class or division of dangerous goods that are not installed in equipment and with an energy storage capacity of more than 10 Wh per capacitor.. Refer to *Figure 3-1, Class 9 Miscellaneous DG Label*, below.

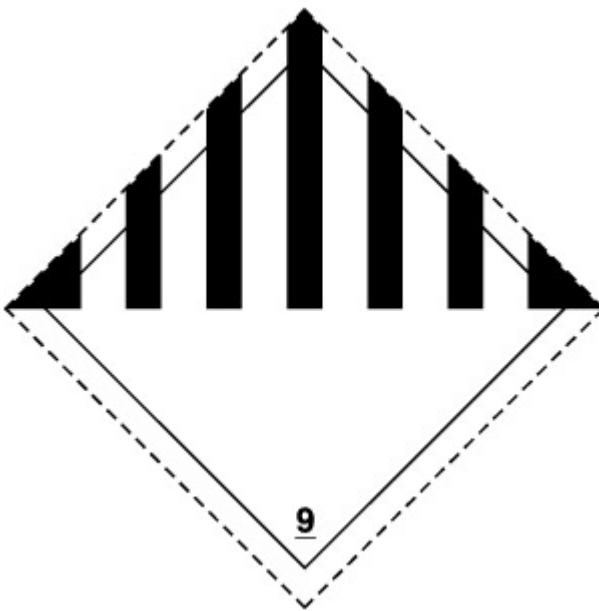


Figure 3-1 Class 9 Miscellaneous DG Label (7317326)

## Label Location

The Class 9 Miscellaneous DG Label (7317326) must be applied on the vertical surface of the package adjacent to the shipping label.

**NOTE 5: Dangerous goods labels cannot be affixed to the top or bottom surface of a package.**

Diamond orientation of 45 degrees is preferred, unless package dimensions are inadequate, in which case the label can be on its side.

**NOTE 6: Labels must not be affixed in such a manner that parts of the same label appear on different surfaces of the package.**

Do not cover handling symbols or other printed container artwork, if possible.

**NOTE 7: Dangerous goods labels cannot be obscured by banding, edge protectors or any other labels or markings.**

## Labeling Requirements for Pallets

Individual single packages that are marked and labeled as 'Dangerous Goods' can be placed on a pallet, in this case, each of the individual single packages on the pallet requires the following:

One Class 9 Miscellaneous DG Label (7317326).

The full name and address of the Shipper and Consignee must be labeled (so that individual packages can be directed to their final destination if they are separated from the pallet).

## Over-Boxing and Consolidation Requirements

Over-boxing is allowed.

- One Class 9 Miscellaneous DG label (7317326) must be applied.
- The Shipper's Declaration for Dangerous Goods (DGD) must be accompanied.

## 5. Lithium Battery – Label Placement

This section defines the lithium battery labels placement requirements when labels are required by Oracle, DOT, ICAO, IATA, or IMDG.

### Label Quantity

For lithium ion batteries (secondary, including Lithium polymer or Lithium ion polymer batteries):

- One UN3480 lithium ion battery mark (7344559) and one Cargo Aircraft Only Label (267-4196-01, L20R) must be applied on packages of standalone lithium ion batteries (UN3480). Refer to Figure 4-1 UN3480 Lithium Ion Battery Mark (7344559), and Figure 4-3 Cargo Aircraft Only Label (267-4196-01, L20R), **Error! Reference source not found..**
- One UN3481 lithium ion battery mark (7344560) must be applied on packages containing lithium ion batteries packed with or installed in equipment (UN3481). Refer to Figure 4-2 UN3481 Lithium Ion Battery Mark (7344560), **Error! Reference source not found..**



Figure 4-1 UN3480 Lithium Ion Battery Mark (7344559)

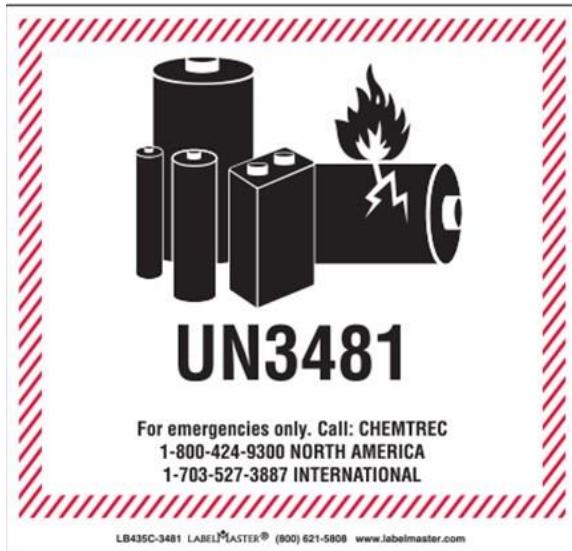


Figure 4-2 UN3481 Lithium Ion Battery Mark (7344560)



Figure 4-3 Cargo Aircraft Only Label (267-4196-01, L20R)

For lithium metal batteries (primary):

- One UN3090 lithium metal battery mark (7345099), one Cargo Aircraft Only Label (267-4196-01, L20R) and one Forbidden for Transportation Aboard Passenger Aircraft Label (267-4194-01) must be applied on packages of standalone lithium metal batteries (UN3090). Refer to Figure 4-4 UN3090 Lithium Metal Battery Mark (7345099), Figure 4-3 Cargo Aircraft Only Label (267-4196-01, L20R), and Figure 4-5 Forbidden for Transportation Aboard Passenger Aircraft Label (267-4194-01).

- One UN3091 lithium metal battery mark must be applied on packages containing lithium metal batteries packed with or installed in equipment. Button cells or coin cells contained in equipment are exempted from this labeling requirement. Oracle currently does not ship packages that require the UN3091 lithium metal battery mark.



Figure 4-4 UN3090 Lithium Metal Battery Mark (7345099)



Figure 4-5 Forbidden for Transportation Aboard Passenger Aircraft Label (267-4194-01)

## Label Location

The lithium battery labels must be applied on the vertical surface of the package adjacent to the shipping label.

**NOTE 8: Dangerous goods labels cannot be affixed to the top or bottom surface of a package.**

The vertical edges of the labels must be parallel to the vertical edge of the package so that the text is legible when the package is placed upright.

**NOTE 9: Labels must not be affixed in such a manner that parts of the same label appear on different surfaces of the package.**

The lithium battery labels must not cover or touch other labels, handling symbols, or other printed container artwork. It is preferred that the labels be placed 2 inches (50 mm) away from any other label or container artwork, but this may not be possible for some packages. Do not cover handling symbols or other printed container artwork, if possible.

**NOTE: Dangerous goods labels cannot be obscured by banding, edge protectors or any other labels or markings.**

## Over-Packing and Consolidation Requirements

Only one (1) package of lithium ion batteries (PI965 section II) or lithium metal batteries (PI968 section II) shipped separately may be offered for transport in a single consignment. No more than one (1) package may be placed in an overpack. The gross weight of the individual packages must not exceed 2.5 kg (5.51 pounds) for lithium metal batteries and 2.5 kg (5.51 pounds) for lithium ion batteries, and the individual packages must withstand a 1.2 meter drop test. In this case, the individual package and the over-pack require labeling according to *Section 4.1, Label Quantity*, on page 7.

## 6. Lead Acid Batteries

The outer packagings of non-spillable wet batteries (e.g. sealed Lead acid batteries) must be plainly and durably marked "NONSPILLABLE" or "NONSPILLABLE BATTERY". For more details on shipping requirements, please refer to AQP DG spec 914-1769.

## 7. Reference Information

### Reference Documents and Records

| <b>Document Title</b>                                      | <b>Number</b> | <b>ESO Controlled<sup>1</sup></b> |           | <b>Quality Record<sup>2</sup></b> |           |
|--|---------------|-----------------------------------|-----------|-----------------------------------|-----------|
|  |               | <b>Yes</b>                        | <b>No</b> | <b>Yes</b>                        | <b>No</b> |
| <i>Specification for the Environment - Dangerous Goods</i> | 914-1769-xx   | X                                 |           |                                   | X         |

## 8. Related Information

| DASH                  | REV | DATE        | DESCRIPTION OF CHANGE  | ORIGINATOR |
|-----------------------|-----|-------------|--|------------|
| 01                    | A   | 07 Oct 2010 | Initial release.   | N/A        |
| <b>Agile History</b>  |     |             |  |            |
| 02                    |     | 13 Aug 2015 | Updated Lithium Battery requirements based on the latest PI's. Added the Cargo Aircraft Label to Li Metal battery FRU packages (PI 968). Changed to the Supercap requirements, which now aligns with the EDLC's requirement. Updated the MM test requirement to equipment over 650 kgs. - based on test data. Updated the Applicability section, added Oracle part number for Dangerous Goods Class 9 Label and unified the terminology. | N/A        |
| 03                    |     | 25 Aug 2016 | Updated Lithium battery transportation requirements based on the latest IATA DGR (57th edition). Added the Cargo Aircraft Only Label for Lithium Ion batteries shipped separately (PI965). Deleted Section 3.6 Orientation Labels (This Way Up) - Label Placement.   |            |
| 04                    |     | 13 Sep 2017 | Updated Lithium battery transportation requirements based on the 58th edition IATA DGR. Added reference to IMDG code. Updated the Lithium battery labels. Added a section for Lead acid batteries.   |            |
| <b>Fusion History</b> |     |             |  |            |
| REV                   |     | DATE        | DESCRIPTION OF CHANGE  |            |
| 05                    |     | 02 Nov 2018 | Updated detailed IATA shipping requirements for UN3499 Electric double layer capacitors.   |            |

<sup>1</sup> All references to documents controlled by Engineering Services were current when this document was released.

<sup>2</sup> For quality record information, refer to *WWOPS Quality: Control of Quality Records*, 923-1764-xx.

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21 Aug 2023

Converted to Corporate Template. Simplified Title.