



**WORKING PAPER**

**DANGEROUS GOODS PANEL (DGP)  
WORKING GROUP MEETING (DGP-WG/23)**

**Rio de Janeiro, Brazil, 15 to 19 May 2023**

- Agenda Item 1: Harmonizing ICAO dangerous goods provisions with UN Recommendations on the Transport of Dangerous Goods (REC-A-DGS-2025)**  
**1.2: Develop proposals, if necessary, for amendments to the *Technical Instructions for the Safe Transport of Dangerous Goods by Air* (Doc 9284) for incorporation in the 2025-2026 Edition**

**DRAFT AMENDMENTS TO PART 5 OF THE TECHNICAL INSTRUCTIONS TO ALIGN WITH THE UN RECOMMENDATIONS**

(Presented by the DGP Working Group on UN Harmonization)

**SUMMARY**

This working paper contains draft amendments to Part 5 of the Technical Instructions to reflect the decisions taken by the UN Committee of Experts on the Transport of Dangerous Goods and on the Globally Harmonized System of Classification and Labelling of Chemicals at its ninth session (Geneva, 9 December 2022).

Action by the DGP-WG: The DGP-WG is invited to agree to the draft amendments in this working paper.

## Part 5

### SHIPPER'S RESPONSIBILITIES

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### Chapter 2

### MARKING

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#### 2.4 MARKING SPECIFICATIONS AND REQUIREMENTS

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UN Model Regulations, Chapter 5.2, 5.2.1.9 (see ST/SG/AC.10/50/Add.1)

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#### 2.4.16 Special marking requirements for lithium or sodium ion batteries

2.4.16.1 Packages containing lithium or sodium ion cells or batteries prepared in accordance with Section II of Packing Instructions 966, 967, 969 or 970 and Section IB of Packing Instructions 965 and 968 must be marked as shown in Figure 5-3.

2.4.16.2 The mark must indicate the appropriate UN number preceded by the letters "UN" as follows:

- a) "UN 3090" for lithium metal cells or batteries;
- b) "UN 3480" for lithium ion cells or batteries;
- c) "UN 3091" for lithium metal cells or batteries contained in, or packed with, equipment; ~~or~~
- d) "UN 3481" for lithium ion cells or batteries contained in, or packed with, equipment; ~~;~~
- e) "UN 3551" for sodium ion cells or batteries; or
- f) "UN 3552" for sodium ion cells or batteries contained in, or packed with, equipment.

Where a package contains lithium cells or batteries assigned to different UN numbers, all applicable UN numbers must be indicated on one or more marks.

2.4.16.3 The mark must be in the form of a rectangle or a square with hatched edging. The symbol (group of batteries, one damaged and emitting flame, above the UN number for lithium ion ~~or~~, lithium metal or sodium ion batteries or cells) must be black on white or suitable contrasting background. The hatching must be red. The mark must be a minimum dimension of 100 mm wide × 100 mm high and the minimum width of the hatching must be 5 mm. If the size of the package so requires, the dimensions may be reduced to not less than 100 mm wide × 70 mm high. Where dimensions are not specified, all features must be in approximate proportion to those shown on the full-size mark (Figure 5-3).

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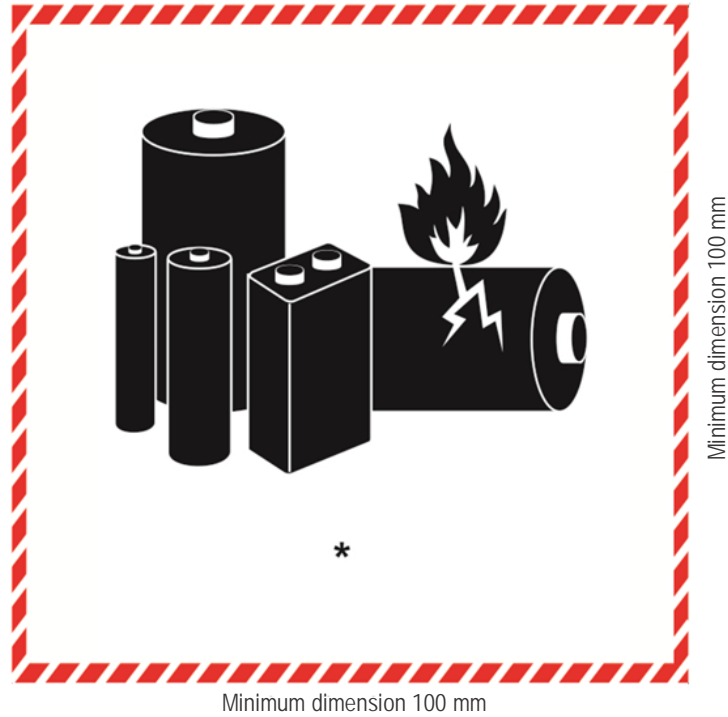
UN Model Regulations, Chapter 3.2, dangerous goods list (see ST/SG/AC.10/50/Add.1):

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2.4.16.4 Packages containing lithium batteries or sodium ion batteries that meet the requirements of Section IB of Packing Instructions 965 or 968 must bear both the lithium or sodium ion battery mark (Figure 5-3) and the lithium or sodium ion battery Class 9 hazard label (Figure 5-26).

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UN Model Regulations, Chapter 5.2, Figure 5.2.5 (see ST/SG/AC.10/50/Add.1)



\* Place for UN number(s)

Figure 5-3. Lithium or sodium ion battery mark

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### Chapter 3

## LABELLING

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### 3.5 LABEL SPECIFICATIONS

#### 3.5.1 Class hazard label specifications

3.5.1.1 Labels must satisfy the provisions of this section and conform, in terms of colour, symbols and general format, to the specimen labels shown in Figures 5-4 to 5-26.

*Note.— Where appropriate, labels in Figures 5-4 to 5-26 are shown with a dotted outer boundary as provided for in 3.5.1.1 a). This is not required when the label is applied on a background of contrasting colour.*

Class hazard labels must conform to the following specifications:

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UN Model Regulations, Chapter 3.2, dangerous goods list (see ST/SG/AC.10/50/Add.1):

- c) With the exception of labels for Divisions 1.4, 1.5 and 1.6 of Class 1, the upper half of the label must contain the pictorial symbol and the lower half must contain the class or, in the case of labels for Class 5, the division number,

as appropriate. However for the Class 9 label for lithium or sodium ion batteries (Figure 5-26), the upper half of the label must only contain the seven vertical stripes of the symbol and the lower half must contain the group of batteries of the symbol and the class number. Except for the Class 9 label for lithium or sodium ion batteries (Figure 5-26), the label may include such text as the UN number, or words describing the hazard class (e.g. “flammable”) in accordance with 3.5.1.1 e) provided that the text does not obscure or detract from the other required label elements.

- d) In addition, except for Divisions 1.4, 1.5 and 1.6, labels for Class 1 must show in the lower half, above the class number, the division number and compatibility group letter for the substance or article. Labels for Divisions 1.4, 1.5 and 1.6 must show in the upper half the division number and in the lower half the class number and the compatibility group letter.
- e) On labels other than those for material of Class 7, the insertion of any text (other than the class or division number or compatibility group) in the space below the symbol must be confined to particulars indicating the nature of the hazard and precautions to be taken in handling. In the case of the Class 9 label for lithium or sodium ion batteries (Figure 5-26), no text other than the class number must be included in the bottom part of the label.

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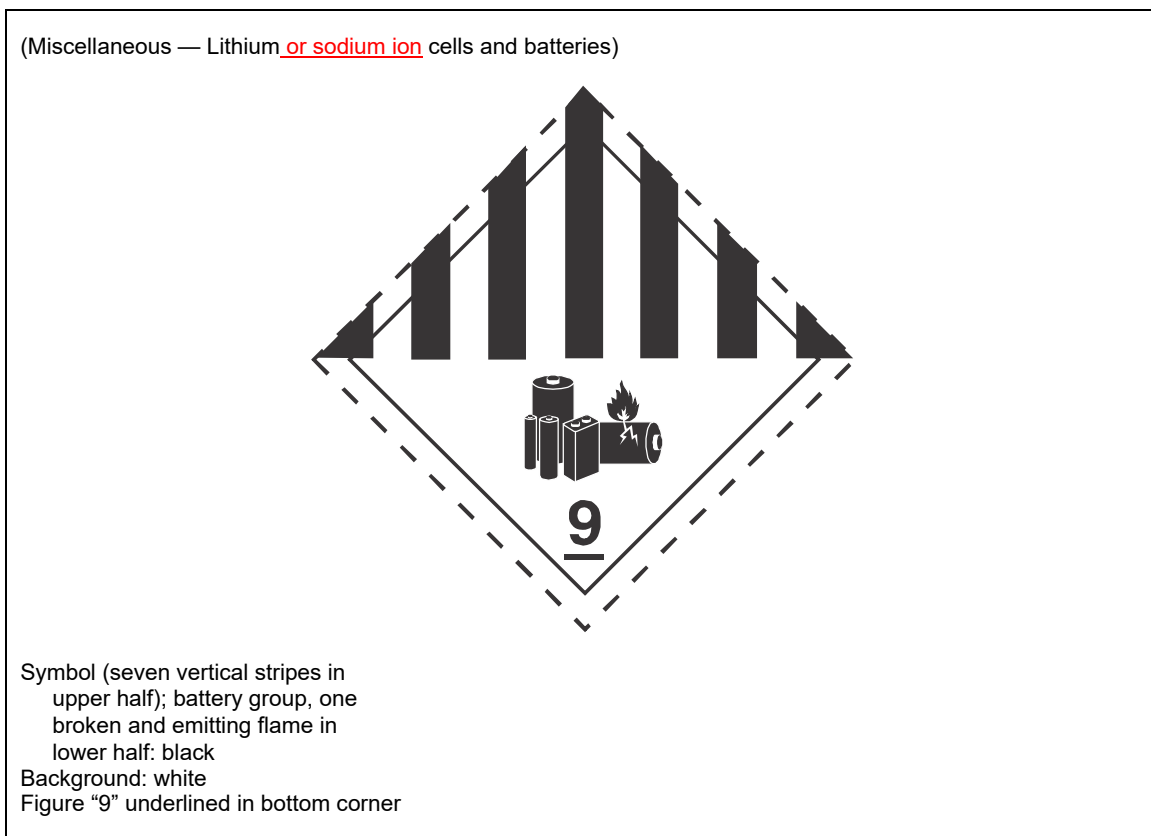


Figure 5-26. Miscellaneous dangerous goods — lithium or sodium ion batteries, Class 9

## Chapter 4

### DOCUMENTATION

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#### 4.1.4 Information required on the dangerous goods transport document

##### 4.1.4.1 *Dangerous goods description*

The dangerous goods transport document must contain the following information for each dangerous substance, material or article offered for transport:

- a) the UN or ID number preceded by the letters "UN" or "ID" as appropriate;
- b) the proper shipping name, as determined according to 3;1.2, including the technical name enclosed in parenthesis, as applicable (see 3;1.2.7);
- c) the primary hazard class or, when assigned, the division of the goods, including for Class 1 the compatibility group letter. The words "Class" or "Division" may be included preceding the primary hazard class or division numbers;
- d) subsidiary hazard class or division number(s) corresponding to the subsidiary hazard label(s) required to be applied, when assigned, must be entered following the primary hazard class or division and must be enclosed in parenthesis. The words "Class" or "Division" may be included preceding the subsidiary hazard class or division numbers;
- e) where assigned, the packing group for the substance or article which may be preceded by "PG" (e.g. "PG II").

DGP-WG/UN Harmonization proposes the following transitional period to implement new entries for "vehicles, lithium battery powered"

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*Note.— Until 31 March 2025, shippers may identify vehicles powered by lithium batteries, UN 3171 — **Battery powered vehicle** as shown in the 2023-2024 Edition of these Instructions. The marks and labels applied, when required, must be consistent with the information shown on the dangerous goods transport document.*

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