



WORKING PAPER

DANGEROUS GOODS PANEL (DGP)

THIRTIETH MEETING

Montréal, 6 to 10 October 2025

Agenda Item 1: Harmonizing ICAO dangerous goods provisions with UN Recommendations on the Transport of Dangerous Goods (REC-A-DGS-2027)

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 2027-2028 Edition

AMENDMENTS TO PART 5 OF THE TECHNICAL INSTRUCTIONS DEVELOPED BY DGP-WG/24 AND DGP-WG/25

(Presented by DGP-WG/UN Harmonization)

SUMMARY

This working paper contains consolidated draft amendments to Part 5 of the Technical Instructions developed by the Working Group of the DGP in 2024 (DGP-WG/2024) and 2025 (DGP-WG/2025). The amendments:

- a) 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 twelfth session to amend the 23rd revised edition of the UN Model Regulations (Geneva, 6 December 2024); and
- c) address issues related to energy storage devices.

The DGP Working Group on UN Harmonization (DGP-WG/UN Harmonization) conducted an extensive review of the amendments to Part 5 proposed for the sake of harmonization with the UN Recommendations by DGP-WG/2025. It identified a need to:

- a) remove a reference to “UN 3511” for sodium ion cells or batteries as one of the UN numbers that needed to appear on the battery mark, given that there was no requirement for a such a mark for sodium ion batteries;
- b) add a reference to Special Provision A239 to the list of special provisions that need to be included on the dangerous goods document in 5;4.1.5.8.1 b) (see also DGP/30-WP/13, Special Provision A239).

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

Part 5

SHIPPER'S RESPONSIBILITIES

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Chapter 2

MARKING

UN harmonization amendments

Paragraph 4.1.2.1 of DGP-WG/25 report:

UN Model Regulations, Chapter 5.2, 5.2.1.9.1 (see ST/SG/AC.10/52/Add.1):

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2.4.16 ~~Special marking requirements for lithium batteries or sodium ion batteries~~ Battery mark

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

UN harmonization amendments

Paragraph 4.1.2.1 of DGP-WG/25 report:

UN Model Regulations, Chapter 5.2, 5.2.1.9.2 (see ST/SG/AC.10/52/Add.1):

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. However, where equipment contains one or more button cells in addition to cells or batteries there is no requirement for the UN number indicating the button cell or cells to be included on the mark.

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, lithium metal or sodium ion cells or batteries) 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).

UN harmonization amendments

Paragraph 4.1.2.1 of DGP-WG/25 report:

UN Model Regulations, Chapter 5.2, 5.2.1.9.3 (see ST/SG/AC.10/52/Add.1):

2.4.16.4 When both the battery mark and labels in accordance with 3.5 other than the Class 9 label for lithium batteries or sodium ion batteries (Figure 5-26) are required, the battery mark must be located on the same surface as the labels if the package dimensions are adequate.

~~2.4.16.4~~2.4.16.5 Packages containing lithium batteries that meet the requirements of Section IB of Packing Instructions 965 or 968 must bear both the battery mark (Figure 5-3) and the lithium battery or sodium ion battery Class 9 hazard label (Figure 5-26).

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Figure 5-3. Battery mark

~~Note. The mark shown in Figure 5-3 of the 2021–2022 edition of the Technical Instructions may continue to be applied until 31 December 2026.~~

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Chapter 3

LABELLING

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UN harmonization amendments

Paragraph 4.1.2.1 of DGP-WG/25 report:

UN Model Regulations, Chapter 5.2, 5.2.2.2.1 (see ST/SG/AC.10/52/Add.1):

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. Corresponding specimen labels required for various modes of transport, with minor variations which do not affect the obvious meaning of the label, are also acceptable.

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Chapter 4

DOCUMENTATION

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4.1 DANGEROUS GOODS TRANSPORT INFORMATION

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4.1.5 Information required in addition to the dangerous goods description

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Amendments to manage aviation specific risks and address anomalies

Paragraph 4.2.2.3 of DGP-WG/25 report:

4.1.5.1 ~~Quantity of dangerous goods, number of packages, and type of packaging~~ and quantity of dangerous goods

4.1.5.1.1 ~~Except as specified in 4.1.5.2 to 4.1.5.1.7, the number of packages, type of packaging (such as steel drum, fibreboard box, etc.) and net quantity of dangerous goods in each package (by volume or mass, as appropriate) must be indicated~~ included for each item of dangerous goods bearing a different proper shipping name, UN number or packing group. Abbreviations may be used to specify the unit of measurement for the quantity.

Moved from the end of 5.4.1.5.1 and replaced
“indicated” with “included”:

Note.— The number, type and capacity of each inner packaging within the outer packaging of a combination packaging is not required to be included.

For packages containing the same dangerous goods and quantity per package a multiple of the quantity may be ~~used~~ included.

For example:

UN 1263, Paint, 3, PG II, 5 fibreboard boxes x 5 L

Consignment comprising packages of different quantities of the same dangerous good must be clearly identified. For example:

UN 1263, Paint, 3, PG II, 5 fibreboard boxes x 5 L, 10 fibreboard boxes x 10 L

UN packaging codes may only be used to supplement the description of the kind of package (such as one fibreboard box (4G)).

4.1.5.1.2 For limited quantities, where the letter “G” follows the quantity in column 11 of Table 3-1:

a) the gross mass of each package must be ~~indicated~~, included rather than the net quantity (except:

b) for more than one package of limited quantities of ID 8000, Consumer commodity, either the actual gross mass of each package or the average gross mass of the packages must be included. For example: if there are 10 packages and the total gross mass of them is 100 kg, the dangerous goods transport document may show this as “average gross mass per package 10 kg”; or

c) when there are different dangerous goods packed together in the same outer packaging ~~which must be described as shown in paragraph e)~~ and, the net quantity of each dangerous goods followed by the gross mass of the completed package must be included.

4.1.5.1.3 ~~a) For empty uncleaned packagings as described by 4.1.4.3 b) only the number and type of packagings need must be shown~~ included.

4.1.5.1.4 ~~b) For chemical kits and first aid kits, the total net mass of dangerous goods must be included. Where the kits contain solids and/or liquids, the net mass of liquids within the kits is to be calculated on a 1 to 1 basis of their volume, that is, 1 L equal to 1 kg.~~

4.1.5.1.5 ~~c) For dangerous goods in apparatus, articles or machinery or apparatus, the individual total quantities of dangerous goods in solid, liquid or gaseous state, contained in the article(s) must be included.~~

~~4.1.5.1.6~~ ~~d)~~ ~~f~~ For dangerous goods transported in salvage packagings, an estimate of the quantity of dangerous goods must be ~~given~~ included.

~~e) for dangerous goods in limited quantities with a 30 kg G limit in Table 3-1, where different dangerous goods are packed together in the same outer packaging, the net quantity of each dangerous goods followed by the gross mass of the completed package;~~

~~4.1.5.1.7~~ ~~f)~~ ~~f~~ For explosive articles of Class 1, the net quantity ~~indicated~~ included for each package must be supplemented with the net explosive mass (see Part 1;3.1.1 for the definition of net explosive mass) contained in the package followed by the unit of measurement. The abbreviations "NEQ", "NEM" or "NEW" may be ~~indicated~~ included in association with the value provided.

Moved to below first paragraph under
5;4.1.5.1:

~~Note. The number, type and capacity of each inner packaging within the outer packaging of a combination packaging is not required to be indicated.~~

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DGP-WG/UN Harmonization proposes the following amendment to ensure transport in accordance with Special Provision A239, a new special provision excepting packaging performance tests for certain mixtures assigned to UN 3082, is noted on the dangerous goods transport document

4.1.5.8 Additional requirements

4.1.5.8.1 The dangerous goods transport document must also contain:

- a) except for radioactive material, the packing instruction applied. For shipments of lithium batteries prepared in accordance with Section IB of Packing Instruction 965 or Packing Instruction 968, the letters "IB" must be added following the packing instruction number;
- b) when applicable, reference to Special Provision A1, A2, A4, A5, A51, A88, A99, A176, A190, A191, A201, A202, A211, A212, A224 ~~or~~ A225 or A239;

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