



**WORKING PAPER**

**DANGEROUS GOODS PANEL (DGP)  
WORKING GROUP MEETING (DGP-WG/21)**

**Virtual Meeting, 24 to 28 May 2021**

**Agenda Item 1: Harmonizing ICAO dangerous goods provisions with UN Recommendations on the Transport of Dangerous Goods**

**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 2023-2024 Edition**

**DRAFT AMENDMENTS TO PART 3 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 3 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, 11 December 2020).

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

## Part 3

## DANGEROUS GOODS LIST, SPECIAL PROVISIONS AND LIMITED AND EXCEPTED QUANTITIES

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Table 3-1. Dangerous Goods List

| Name | UN No. | Class or division | Subsidiary hazard | Labels | State variations | Special provisions | UN packing group | Excepted quantity | Passenger and cargo aircraft |                               | Cargo aircraft only |                               |
|------|--------|-------------------|-------------------|--------|------------------|--------------------|------------------|-------------------|------------------------------|-------------------------------|---------------------|-------------------------------|
|      |        |                   |                   |        |                  |                    |                  |                   | Packing instruction          | Max. net quantity per package | Packing instruction | Max. net quantity per package |
| 1    | 2      | 3                 | 4                 |        | 6                | 7                  | 8                | 9                 | 10                           | 11                            | 12                  | 13                            |

UN Model Regulations, Chapter 3.2, dangerous goods list (see ST/SG/AC.10/48/Add.1):

|                        |      |     |  |                   |  |             |  |    |     |       |     |        |
|------------------------|------|-----|--|-------------------|--|-------------|--|----|-----|-------|-----|--------|
| <b>Air, compressed</b> | 1002 | 2.2 |  | Gas non-flammable |  | <u>A221</u> |  | E1 | 200 | 75 kg | 200 | 150 kg |
|------------------------|------|-----|--|-------------------|--|-------------|--|----|-----|-------|-----|--------|

DGP-WG/UN Harmonization recommends modifying the maximum net quantity per package limit because UN specification packaging is required for UN 3292. The need for this was identified while reviewing the UN's adoption of a note in specific packing instructions in cases where exceptions from design type testing in Part 6 are provided to clarify that the packaging used can be larger than the 400 kg (see DGP-WG/21-WP/21):

|  |      |   |  |           |  |                     |  |    |     |       |     |                           |
|--|------|---|--|-----------|--|---------------------|--|----|-----|-------|-----|---------------------------|
| <b>Batteries, wet, filled with acid</b> , electric storage †   | 2794 | 8 |  | Corrosive |  | A51<br>A164<br>A183 |  | E0 | 870 | 30 kg | 870 | No limit<br><u>400 kg</u> |
| <b>Batteries, wet, filled with alkali</b> , electric storage † | 2795 | 8 |  | Corrosive |  | A51<br>A164<br>A183 |  | E0 | 870 | 30 kg | 870 | No limit<br><u>400 kg</u> |

UN Model Regulations, Chapter 3.2, dangerous goods list (see ST/SG/AC.10/48/Add.1):

|                 |      |     |  |               |                                      |                   |  |    |           |  |     |        |
|-----------------|------|-----|--|---------------|--------------------------------------|-------------------|--|----|-----------|--|-----|--------|
| <b>Butylene</b> | 1012 | 2.1 |  | Gas flammable | AU 1<br>CA 7<br>IR 3<br>NL 1<br>US 3 | A1<br><u>A222</u> |  | E0 | FORBIDDEN |  | 200 | 150 kg |
|-----------------|------|-----|--|---------------|--------------------------------------|-------------------|--|----|-----------|--|-----|--------|

DGP-WG/UN Harmonization recommends modifying the maximum net quantity per package limit because UN specification packaging is required for UN 3292. The need for this was identified while reviewing the UN's adoption of a note in specific packing instructions in cases where exceptions from design type testing in Part 6 are provided to clarify that the packaging used can be larger than the 400 kg (see DGP-WG/21-WP/21):

|                            |      |     |  |               |     |  |    |     |       |     |                            |
|----------------------------|------|-----|--|---------------|-----|--|----|-----|-------|-----|----------------------------|
| Cells, containing sodium † | 3292 | 4.3 |  | Danger if wet | A94 |  | E0 | 492 | 25 kg | 492 | No limit <del>400 kg</del> |
|----------------------------|------|-----|--|---------------|-----|--|----|-----|-------|-----|----------------------------|

UN Model Regulations, Chapter 3.2, dangerous goods list (see ST/SG/AC.10/48/Add.1):

|   |      |                  |     |                          |    |  |           |          |                                |                            |                    |               |
|---|------|------------------|-----|--------------------------|----|--|-----------|----------|--------------------------------|----------------------------|--------------------|---------------|
| <u>Cobalt dihydroxide powder, containing not less than 10% respirable particles</u> | 3550 | 6.1              |     | Toxic                    |    |  | I         | E5       | 666                            | 5 kg                       | 673                | 50 kg         |
| Ethyl bromide   | 1891 | <del>6.1</del> 3 | 6.1 | Liquid flammable & Toxic |    |  | II        | E4E2     | <del>654</del> 352<br>Y641Y341 | 5 L<br>1 L                 | <del>662</del> 364 | 60 L          |
| Extracts, aromatic, liquid †  | 1169 | 3                |     | Liquid flammable         | A3 |  | II<br>III | E2<br>E1 | 353<br>Y341<br>355<br>Y344     | 5 L<br>1 L<br>60 L<br>10 L | 364<br>366         | 60 L<br>220 L |
| Extracts, flavouring, liquid, for flavour or aroma †                                | 1197 | 3                |     | Liquid flammable         | A3 |  | II<br>III | E2<br>E1 | 353<br>Y341<br>355<br>Y344     | 5 L<br>1 L<br>60 L<br>10 L | 364<br>366         | 60 L<br>220 L |

UN Model Regulations, Chapter 3.2, dangerous goods list (see ST/SG/AC.10/1/Rev.21, Vol. I and II Corrigendum 1):

|  |      |   |  |             |      |                     |  |  |  |  |                           |
|--|------|---|--|-------------|------|---------------------|--|--|--|--|---------------------------|
| Radioactive material, surface contaminated objects (SCO-I or SCO-II or SCO-III), non-fissile or fissile excepted | 2913 | 7 |  | Radioactive | CA 1 | A78<br>A139<br>A159 |  |  |  |  | See Part 2;7 and Part 4;9 |
|--|------|---|--|-------------|------|---------------------|--|--|--|--|---------------------------|

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## Chapter 3

### SPECIAL PROVISIONS

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Table 3-2. Special provisions

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UN Model Regulations, Chapter 3.3, SP 225 (see ST/SG/AC.10/48/Add.1):

Secretariat proposes minor editorial revision at beginning of note. UN text is: “This entry applies to portable fire extinguishers even if ...”. Referring to “entry” is confusing since the whole special provision is an “entry” as referred to in leading sentence, i.e. “Fire extinguishers under this entry include ...”

- A19 (225) Fire extinguishers under this entry may include installed actuating cartridges (cartridges, power device of Division 1.4C or 1.4S), without changing the classification of Division 2.2 provided the total quantity of deflagrating (propellant) explosives does not exceed 3.2 grams per extinguishing unit.

Fire extinguishers must be manufactured, tested, approved and labelled according to the provisions applied in the State of Manufacture. Fire extinguishers under this entry include:

*Note.— Provisions applied in the State of Manufacture means the provisions applicable in the State of Manufacture or those applicable in the State of use.*

- a) portable fire extinguishers for manual handling and operation;

*Note.— Fire extinguishers may be considered portable even if some components that are necessary for their proper functioning (e.g. hoses and nozzles) are temporarily detached, as long as the safety of the pressurized extinguishing agent containers is not compromised and the fire extinguishers continue to be identified as a portable fire extinguisher.*

- b) fire extinguishers for installation in aircraft;

- c) fire extinguishers mounted on wheels for manual handling;

- d) fire extinguishing equipment or machinery mounted on wheels or wheeled platforms or units transported similar to (small) trailers; and

- e) fire extinguishers composed of a non-rollable pressure drum and equipment, and handled, for example, by fork lift or crane when loaded or unloaded.

Cylinders which contain gases for use in the above-mentioned extinguishers or for use in stationary firefighting installations must meet the requirements in Part 6;5 and all requirements applicable to the relevant dangerous goods when these cylinders are transported separately.

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UN Model Regulations, Chapter 3.3, SP 397 (see ST/SG/AC.10/48/Add.1):

A221 (397) Mixtures of nitrogen and oxygen containing not less than 19.5 per cent and not more than 23.5 per cent oxygen by volume may be transported under this entry when no other oxidizing gases are present. A Division 5.1 subsidiary hazard label is not required for any concentrations within this limit.

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UN Model Regulations, Chapter 3.3, SP 398 (see ST/SG/AC.10/48/Add.1):

A222 (398) This entry applies to mixtures of butylenes, 1-butylene, cis-2-butylene and trans-2-butylene. For isobutylene, see UN 1055.

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