



**WORKING PAPER**

**DANGEROUS GOODS PANEL (DGP)  
WORKING GROUP MEETING (DGP-WG/20)**

Virtual, 19 to 23 October 2020

- 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**

**ALLOWANCE FOR LARGE ARTICLES CONTAINING  
ENVIRONMENTALLY HAZARDOUS SUBSTANCES**

(Presented by D. Brennan)

**SUMMARY**

This working paper proposes a revision to the entry UN 3548 — **Articles containing miscellaneous dangerous goods, n.o.s.** to amend it from “forbidden / forbidden” to be permitted on both passenger aircraft and cargo aircraft provided that the article contains only an environmentally hazardous substance. It is also proposed to adopt a new packing instruction for these articles.

**Action by the DGP-WG:** The DGP-WG is invited to consider the amendments to Table 3-1 and the adoption of a new packing instruction as shown in the appendix to this working paper.

**1. INTRODUCTION**

1.1 At DGP-WG/17 and DGP/26 the panel considered amendments arising from the decisions of the UN Committee of Experts to amend the provisions of the UN Model Regulations. Among the amendments considered was the adoption of new entries for articles containing dangerous goods, n.o.s.

1.2 In considering these new entries, in all classes and divisions except for Classes 1 and 7 and Division 6.2, the panel decided that the entries should be adopted into Table 3-1 as “forbidden / forbidden”, with most entries being assigned Special Provision A2 to permit transport on a cargo aircraft with the approval of the authorities of the States of Origin and of the Operator.

1.3 At the time the panel considered that there was a lack of experience with articles that may contain large quantities of dangerous goods and a lack of knowledge on just what types of dangerous goods and what quantity may be in such articles. On that basis it was believed that making the entries “forbidden / forbidden”, with Special Provision A2 was appropriate.

1.4 Recently we have been made aware of aircraft components, landing gear assemblies, that are shipped with a large quantity of hydraulic fluid as part of the assembly. The hydraulic fluid is classified as UN 3082 — **Environmentally hazardous substance, liquid, n.o.s.** The quantity of the hydraulic fluid in the assembly exceeds that permitted as UN 3363 — **Dangerous goods in apparatus** either in the Technical Instructions, which is 0.5 L or that would be permitted by Special Provision A107 under UN special provision 301, which is 5 L.

1.5 There is a need for operators to be able to move these landing gear assemblies as part of their maintenance activities, some of which may require the operator to transport an assembly at short notice to address an “aircraft on ground” situation. Given that environmentally hazardous substances pose a very low hazard in air transport, it is proposed that the entry UN 3548 be revised to permit carriage on both passenger aircraft and cargo aircraft with a “No limit” value for the net quantity, subject to the article containing only an environmentally hazardous substance.

## 2. ACTION BY THE DGP-WG

2.1 The DGP-WG is invited to consider the revisions to Table 3-1 and to Part 4 as shown in the appendix to this working paper.

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APPENDIX

PROPOSED AMENDMENT TO PARTS 3 AND 4 OF THE TECHNICAL INSTRUCTIONS

Part 3

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

Revise Table 3-1 as shown:

Table 3-1. Dangerous Goods List

Name 1	UN No. 2	Class or division 3	Subsidiary hazard 4	Labels 5	State variations 6	Special provisions 7	UN packing group 8	Excepted quantity 9	Passenger aircraft		Cargo aircraft	
									Packing instruction 10	Max. net quantity per package 11	Packing instruction 12	Max. net quantity per package 13
Articles containing miscellaneous dangerous goods, n.o.s.*	3548	9	See 2;0.6	Miscellaneous		A2			FORB1 9XX	DDEN No limit	FORB1 9XX	DDEN No limit
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## Part 4

# PACKING INSTRUCTIONS

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## Chapter 11

### CLASS 9 — MISCELLANEOUS DANGEROUS GOODS

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#### Packing Instruction 9XX

Passenger and cargo aircraft for UN 3548 only

##### Introduction

This packing instruction is only permitted for articles which do not have an existing proper shipping name and which contain only environmentally hazardous substances where the quantity of the environmentally hazardous substance exceeds both the quantity limits for UN 3363 as prescribed in Special Provision A107 and the quantity limits permitted by Special Provision 301 of the UN Model Regulations.

##### General requirements

Part 4;1.1.1, 4;1.1.3, [4;1.1.4,] 4;1.1.12 and 4;2 requirements must be met.

<u>UN number and proper shipping name</u>	<u>Quantity — passenger</u>	<u>Quantity — cargo</u>
<u>UN 3548 Articles containing miscellaneous dangerous goods, n.o.s.*</u>	<u>No limit</u>	<u>No limit</u>

##### ADDITIONAL PACKING REQUIREMENTS

- Packagings must meet Packing Group II performance requirements.
- Receptacles containing liquids or solids within articles must be constructed of suitable materials and secured in the article in such a way that, under normal conditions of transport, they cannot break, be punctured or leak their contents into the article itself or the outer packaging.
- Receptacles containing liquids with closures must be packed with their closures correctly oriented. The receptacles must in addition conform to the internal pressure test provisions of 6;4.5.
- Receptacles that are liable to break or be punctured easily, such as those made of glass or of certain plastics materials must be properly secured, and any leakage of the contents must not substantially impair the protective properties of the article or of the outer packaging.
- Where there is no receptacle within the article, the article must fully enclose the dangerous goods and prevent their release under normal conditions of transport.
- Articles must be packed to prevent movement and inadvertent operation during normal conditions of transport.

##### ROBUST ARTICLES

Robust articles may alternatively be transported in strong outer packagings constructed of suitable material and of adequate strength and design in relation to the packaging capacity and its intended use. The packagings must achieve a level of protection that is at least equivalent to that provided by 6;1. Articles may be transported unpackaged or on pallets when the dangerous goods are afforded equivalent protection by the article in which they are contained. In such cases the additional requirement related to Packing Group II performance requirements and the requirement for UN specification outer packagings do not apply.

**OUTER PACKAGINGS (see 6:3.1)**Boxes

Aluminium (4B)  
Fibreboard (4G)  
Natural wood (4C1, 4C2)  
Other metal (4N)  
Plastics (4H1, 4H2)  
Plywood (4D)  
Reconstituted wood (4F)  
Steel (4A)

Drums

Aluminium (1B2)  
Fibre (1G)  
Other metal (1N2)  
Plastics (1H2)  
Plywood (1D)  
Steel (1A2)

Jerricans

Aluminium (3B2)  
Plastics (3H2)  
Steel (3A2)

— END —