



## DANGEROUS GOODS PANEL (DGP) MEETING OF THE WORKING GROUP OF THE WHOLE

**The Hague, 3 to 7 November 2008**

**Agenda Item 5: Resolution, where possible, of the non-recurrent work items identified by the Air Navigation Commission or the panel**  
**5.2: Reformatting of the packing instructions**

### PACKING INSTRUCTIONS FOR CLASS 1

(Presented by G. Leach)

#### **SUMMARY**

This information paper contains a first draft of the reformatted packing instructions for Class 1.

### 1. INTRODUCTION

1.1 Following the decision of the DGP to adopt new packing instructions for the 2011/12 Edition of the Technical Instructions it was agreed that the Class 1 packing instructions should be reformatted in the same style.

1.2 A first draft of the reformatted packing instructions is contained in the appendix. The text is from the 15th revised edition of the UN Model Regulations on the Transport of Dangerous Goods NOT the TIs. The Packing Instruction Working Group agreed that this was the preferred option as there was some concern that the TIs had not kept completely up to date with changes to the UN provisions.

1.3 Although the revised packing instructions take account of the ones adopted by the panel last year, complete alignment to the new style is not practical as the panel have always used UN packing instructions for Class 1. The possibility of merging different packing instructions was not possible.

1.4 There are a number of points which are in red and underlined in the packing instructions. These are comments which will need to be considered by the Packing Instruction Working Group and probably by the UN Committee of Experts on the Transport of Dangerous Goods.

1.5 Panel members will also see that there are a large number of UN numbers that appear in the TIs under "Additional Packing Requirements" which are listed as Forbidden/Forbidden in the blue pages.

1.6 Panel members are asked to provide comments by 27 February 2009 so that a proposal can be offered at DGP-WG09.

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## APPENDIX

### PACKING INSTRUCTIONS FOR CLASS 1

#### Packing Instruction 101

Only packagings which are approved by the competent authority may be used. The State's distinguishing sign for motor vehicles in international traffic of the country for which the authority acts, shall be marked on the transport documents as follows:

"Packaging approved by the competent authority of ..."

#### Packing Instruction 114(a)

Cargo aircraft only

This packing instruction applies to solid wetted substances.

##### General requirements

The following provisions must be met:

- 1) Part 4, Chapter 1.1 requirements, including:

##### Compatibility requirements

- Substances must be compatible with the packagings as required by 4;1.1.3. [Note — Wording intentionally different from other PIs because you can use inners or single]

##### Securing inner packagings

- Inner packagings shall be secured and cushioned as required by 4.1.1.9 [This paragraph needs to be reviewed at UN to make it applicable to articles]

- 2) Part 4, Chapter 2 requirements; and
- 3) Part 4 Chapter 3;3.1 to 3.3 requirements.

<i>Inner packagings</i>	<i>Intermediate packagings</i>	<i>Total quantity per package — passenger</i>	<i>Total quantity per package — cargo</i>
<b>Bags</b> plastics textile woven plastics	<b>Bags</b> plastics textile, plastic coated or lined	Forbidden	75 kg
<b>Receptacles</b> metal plastics	<b>Receptacles</b> metal plastics		

**ADDITIONAL PACKING REQUIREMENTS**

- Intermediate packagings are not required if leakproof removable head drums are used as the outer packaging.
- For UN Nos. 0077, **0132**, 0234, 0235 and 0236, packagings shall be lead free.  
**[All the UN nos. marked in red are Forbidden/Forbidden BUT appear in the current PI]**
- For UN 0342, inner packagings are not required when metal (1A2 or 1B2) or plastics (1H2) drums are used as outer packagings.

**OUTER PACKAGINGS**

<i>Boxes</i>	<i>Drums</i>
steel (4A)	steel, removable head (1A2)
natural wood, ordinary (4C1)	aluminium, removable head (1B2)
natural wood, sift-proof walls (4C2)	fibre (1G)
plywood (4D)	plastics, removable head (1H2)
reconstituted wood (4F)	
fibreboard (4G)	
plastics, solid (4H2)	

**Packing Instruction 114(b)**

Cargo aircraft only

This packing instruction applies to solid dry substances.

**General requirements**

The following provisions must be met:

- 1) Part 4, Chapter 1.1 requirements, including:

**Compatibility requirements**

- Substances must be compatible with the packagings as required by 4.1.1.3. **[Note — Wording intentionally different from other PIs because you can use inners or single]**

**Securing inner packagings**

- Inner packagings shall be secured and cushioned as required by 4.1.1.9 **[This paragraph needs to be reviewed at UN to make it applicable to articles]**

- 2) Part 4, Chapter 2 requirements; and

- 3) Part 4 Chapter 3;3.1 to 3.3 requirements.

<i>Inner packagings</i>	<i>Intermediate packagings</i>	<i>Total quantity per package — passenger</i>	<i>Total quantity per package — cargo</i>
<b>Bags</b> paper, kraft plastics textile, sift-proof woven plastics, sift-proof			
<b>Receptacles</b> fibreboard metal paper plastics woven plastics, sift-proof	Not necessary	Forbidden	75 kg

**ADDITIONAL PACKING REQUIREMENTS**

- For UN Nos. 0077, 0132, 0234, 0235 and 0236, packagings shall be lead free.
- For UN 0508, metal packagings shall not be used.
- For UN Nos. 0160, 0161 and 0508, inner packagings are not necessary if drums are used as the outer packaging.  
[All the UN nos. marked in red are Forbidden/Forbidden BUT appear in the current PI].
- For UN 0160 and UN 0161, when metal drums (1A2 or 1B2) are used as the outer packaging, metal packagings shall be so constructed that the risk of explosion, by reason of increase internal pressure from internal or external causes is prevented.

**OUTER PACKAGINGS**

<i>Boxes</i>	<i>Drums</i>
fibreboard (4G)	aluminium, removable head (1B2)
natural wood, ordinary (4C1)	fibre (1G)
natural wood, sift-proof walls (4C2)	plastics, removable head (1H2)
plywood (4D)	plywood (1D)
reconstituted wood (4F)	steel, removable head (1A2)

**Packing Instruction 130**

Passenger and cargo aircraft

**General requirements**

The following provisions must be met:

- 1) Part 4, Chapter 1.1 requirements, including:

**Securing inner packagings**

- Inner packagings shall be secured and cushioned as required by 4.1.1.9 [This paragraph needs to be reviewed at UN to make it applicable to articles]
- 2) Part 4, Chapter 2 requirements; and
  - 3) Part 4 Chapter 3;3.1 to 3.3 requirements.

<i>Inner packagings</i>	<i>Intermediate packagings</i>	<i>Total quantity per package — passenger</i>	<i>Total quantity per package — cargo</i>
Not necessary	Not necessary	Forbidden UN 0345 25kg	For UN 0186 220 kg  For UN 0297, 0300, 0301, 0303, 0344, 0345, 0347, 0362, 0363, 0370, 0412, 0425, 0435, 0437, 0438 75 kg

**ADDITIONAL PACKING REQUIREMENTS**

- The following applies to UN Nos. 0006, 0009, 0010, 0015, 0016, 0018, 0019, 0034, 0035, 0038, 0039, 0048, 0056, 0137, 0138, 0168, 0169, 0171, 0181, 0182, 0183, 0186, 0221, 0243, 0244, 0245, 0246, 0254, 0280, 0281, 0286, 0287, 0297, 0299, 0300, 0301, 0303, 0321, 0328, 0329, 0344, 0345, 0346, 0347, 0362, 0363, 0370, 0412, 0424, 0425, 0434, 0435, 0436, 0437, 0438, 0451, 0488 and 0502: Large and robust explosives articles, normally intended for military use, without their means of initiation or with their means of initiation containing at least two effective protective features, may be carried unpackaged. When such articles have propelling charges or are self-propelled, their ignition systems shall be protected against stimuli encountered during normal conditions of transport. A negative result in Test Series 4 on an unpackaged article indicates that the article can be considered for transport unpackaged. Such unpackaged articles may be fixed to cradles or contained in crates or other suitable handling devices.

[UN0238 is listed in TIs BUT NOT in UN, UN502 has been added as it is in UN but not TIs]

[All the UN nos. marked in red are Forbidden/Forbidden BUT appear in the current PI]

**OUTER PACKAGINGS**

<i>Boxes</i>	<i>Drums</i>
aluminium (4B)	aluminium, removable head (1B2)
fibreboard (4G)	fibre (1G)
natural wood, ordinary (4C1)	plastics, removable head (1H2)
natural wood, sift-proof walls (4C2)	plywood (1D)
plywood (4D)	steel, removable head (1A2)
plastics, expanded (4H1)	
plastics, solid (4H2)	
reconstituted wood (4F)	
steel (4A)	

## Packing Instruction 131

Cargo aircraft only

This packing instruction applies to solid dry substances.

### General requirements

The following provisions must be met:

- 1) Part 4, Chapter 1.1 requirements, including:

#### Securing inner packagings

— Inner packagings shall be secured and cushioned as required by 4.1.1.9 [\[This paragraph needs to be reviewed at UN to make it applicable to articles\]](#)

- 2) Part 4, Chapter 2 requirements; and
- 3) Part 4 Chapter 3;3.1 to 3.3 requirements.

<i>Inner packagings</i>	<i>Intermediate packagings</i>	<i>Total quantity per package — passenger</i>	<i>Total quantity per package — cargo</i>
<b>Bags</b> paper, kraft plastics			
<b>Receptacles</b> fibreboard metal plastics wood	Not necessary	Forbidden	75 kg except for UN 0455, 0456 100 kg
<b>Reels</b>			

### ADDITIONAL PACKING REQUIREMENTS

- For UN Nos. 0029, 0267 and 0455, bags and reels shall not be used as inner packagings.

### OUTER PACKAGINGS

<i>Boxes</i>	<i>Drums</i>
aluminium (4B)	aluminium, removable head (1B2)
fibreboard (4G)	fibre (1G)
natural wood, ordinary (4C1)	plastics, removable head (1H2)
natural wood, sift-proof walls (4C2)	plywood (1D)
plywood (4D)	steel, removable head (1A2)
plastics, expanded (4H1)	
plastics, solid (4H2)	
reconstituted wood (4F)	
steel (4A)	

## Packing Instruction 133

Passenger and cargo aircraft

### **General requirements**

The following provisions must be met:

- 1) Part 4, Chapter 1.1 requirements, including:

#### **Securing inner packagings**

— Inner packagings shall be secured and cushioned as required by 4.1.1.9 [\[This paragraph needs to be reviewed at UN to make it applicable to articles\]](#)

- 2) Part 4, Chapter 2 requirements; and
- 3) Part 4 Chapter 3;3.1 to 3.3 requirements.

<i>Inner packagings</i>	<i>Intermediate packagings</i>	<i>Total quantity per package — passenger</i>	<i>Total quantity per package — cargo</i>
<b>Receptacles</b>			
fibreboard metal plastics wood	Not necessary	Forbidden Except for UN 0044, 0366, 0376 25 kg	75 kg Except for UN 0455, 0456 100 kg
<b>Trays fitted with dividing partitions</b>			
fibreboard plastic wood			

### **ADDITIONAL PACKING REQUIREMENTS**

- Receptacles are only required as intermediate packagings when the inner packagings are trays.
- For UN Nos. 0043, 0212, 0225, 0268 and 0306, trays shall not be used as inner packagings.

### **OUTER PACKAGINGS**

#### *Boxes*

aluminium (4B)  
fibreboard (4G)  
natural wood, ordinary (4C1)  
natural wood, sift-proof walls (4C2)  
plywood (4D)  
plastics, expanded (4H1)  
plastics, solid (4H2)  
reconstituted wood (4F)  
steel (4A)

**Packing Instruction 134**

Passenger and cargo aircraft

**General requirements**

The following provisions must be met:

- 1) Part 4, Chapter 1.1 requirements, including:

**Securing inner packagings**

— Inner packagings shall be secured and cushioned as required by 4.1.1.9 [\[This paragraph needs to be reviewed at UN to make it applicable to articles\]](#)

- 2) Part 4, Chapter 2 requirements; and
- 3) Part 4 Chapter 3;3.1 to 3.3 requirements.

<i>Inner packagings</i>	<i>Intermediate packagings</i>	<i>Total quantity per package — passenger</i>	<i>Total quantity per package — cargo</i>
<b>Bags</b> water resistant <sup>1</sup>			
<b>Receptacles</b> fibreboard metal plastics wood	Not necessary	Forbidden except for UN 0070, 0173, 0174, 0323 25 kg	75 kg
<b>Sheets</b> Fibreboard, corrugated			
<b>Tubes</b> Fibreboard			

**OUTER PACKAGINGS***Boxes*

aluminium (4B)  
fibreboard (4G)  
natural wood, ordinary (4C1)  
natural wood, sift-proof walls (4C2)  
plywood (4D)  
plastics, expanded (4H1)  
plastics, solid (4H2)  
reconstituted wood (4F)  
steel (4A)

*Drums*

aluminium, removable head (1B2)  
fibreboard (1G)  
plywood (1D)  
plastics, removable head (1H2)  
steel, removable head (1A2)

[\[Inconsistent terminology when compared to other bag requirements e.g. 131 UN needs to resolve\]](#)

## Packing Instruction 135

Passenger and cargo aircraft

### **General requirements**

The following provisions must be met:

- 1) Part 4, Chapter 1.1 requirements, including:

#### **Securing inner packagings**

— Inner packagings shall be secured and cushioned as required by 4.1.1.9 [This paragraph needs to be reviewed at UN to make it applicable to articles]

- 2) Part 4, Chapter 2 requirements; and
- 3) Part 4 Chapter 3;3.1 to 3.3 requirements.

<i>Inner packagings</i>	<i>Intermediate packagings</i>	<i>Total quantity per package — passenger</i>	<i>Total quantity per package — cargo</i>
<b>Bags</b>			
Paper			
Plastic			
<b>Receptacles</b>			
fibreboard			
metal			
plastics	Not necessary		
wood			
<b>Sheets</b>			
paper			
plastic			

### **OUTER PACKAGINGS**

#### *Boxes*

aluminium (4B)  
fibreboard (4G)  
natural wood, ordinary (4C1)  
natural wood, sift-proof walls (4C2)  
plywood (4D)  
plastics, expanded (4H1)  
plastics, solid (4H2)  
reconstituted wood (4F)  
steel (4A)

#### *Drums*

aluminium, removable head (1B2)  
fibreboard (1G)  
plywood (1D)  
plastics, removable head (1H2)  
steel, removable head (1A2)

## Packing Instruction 136

Passenger and cargo aircraft

### General requirements

The following provisions must be met:

- 1) Part 4, Chapter 1.1 requirements, including:

#### Securing inner packagings

— Inner packagings shall be secured and cushioned as required by 4.1.1.9 [\[This paragraph needs to be reviewed at UN to make it applicable to articles\]](#)

- 2) Part 4, Chapter 2 requirements; and
- 3) Part 4 Chapter 3;3.1 to 3.3 requirements.

<i>Inner packagings</i>	<i>Intermediate packagings</i>	<i>Total quantity per package — passenger</i>	<i>Total quantity per package — cargo</i>
<b>Bags</b> plastic textile			
<b>Receptacles</b> fibreboard plastics wood	Not necessary	Forbidden except for UN 0055 25 kg	75 kg
<b>Dividing partitions<sup>2</sup> in the outer packagings</b>			

### OUTER PACKAGINGS

#### Boxes

aluminium (4B)  
fibreboard (4G)  
natural wood, ordinary (4C1)  
natural wood, sift-proof walls (4C2)  
plywood (4D)  
plastics, expanded (4H1)  
plastics, solid (4H2)  
reconstituted wood (4F)  
steel (4A)

#### Drums

aluminium, removable head (1B2)  
fibreboard (1G)  
plywood (1D)  
plastics, removable head (1H2)  
steel, removable head (1A2)

<sup>2</sup>UN text read "portions" needs to be corrected

## Packing Instruction 137

Passenger and cargo aircraft

### **General requirements**

The following provisions must be met:

- 1) Part 4, Chapter 1.1 requirements, including:

#### **Securing inner packagings**

— Inner packagings shall be secured and cushioned as required by 4.1.1.9 [This paragraph needs to be reviewed at UN to make it applicable to articles]

- 2) Part 4, Chapter 2 requirements; and
- 3) Part 4 Chapter 3;3.1 to 3.3 requirements.

<i>Inner packagings</i>	<i>Intermediate packagings</i>	<i>Total quantity per package — passenger</i>	<i>Total quantity per package — cargo</i>
<b>Bags</b> plastics			For UN0440, 0440: 75 kg
<b>Boxes</b> fibreboard		Forbidden except for UN 0441, 0445 25 kg	For UN0441, 0445 100 kg
<b>Tubes</b> fibreboard metal plastics	Not necessary		
<b>Dividing partitions in the outer packagings</b>			

### **ADDITIONAL PACKING REQUIREMENTS**

- For UN Nos. 0059, 0439, 0440 and 0441, when the shaped charges are packed singly, the conical cavity shall face downwards and the package marked "THIS SIDE UP". When the shaped charges are packed in pairs, the conical cavities shall face inwards to minimize the jetting effect in the event of accidental initiation.

[All the UN nos. marked in red are Forbidden/Forbidden BUT appear in the current PI]

### **OUTER PACKAGINGS**

#### *Boxes*

aluminium (4B)  
fibreboard (4G)  
natural wood, ordinary (4C1)  
natural wood, sift-proof walls (4C2)  
plywood (4D)  
reconstituted wood (4F)  
steel (4A)

Why no plastic boxes they are permitted in 133? UN to answer

## Packing Instruction 138

Cargo aircraft only

### General requirements

The following provisions must be met:

- 1) Part 4, Chapter 1.1 requirements, including:

#### Securing inner packagings

— Inner packagings shall be secured and cushioned as required by 4.1.1.9 [\[This paragraph needs to be reviewed at UN to make it applicable to articles\]](#)

- 2) Part 4, Chapter 2 requirements; and
- 3) Part 4 Chapter 3;3.1 to 3.3 requirements.

<i>Inner packagings</i>	<i>Intermediate packagings</i>	<i>Total quantity per package — passenger</i>	<i>Total quantity per package — cargo</i>
Bags plastic	Not necessary	Forbidden	75 kg

### ADDITIONAL PACKING REQUIREMENTS

- If the ends of the articles are sealed, inner packagings are not necessary

### OUTER PACKAGINGS

#### Boxes

aluminium (4B)  
fibreboard (4G)  
natural wood, ordinary (4C1)  
natural wood, sift-proof walls (4C2)  
plywood (4D)  
plastics, solid (4H2)  
reconstituted wood (4F)  
steel (4A)

#### Drums

aluminium, removable head (1B2)  
fibreboard (1G)  
plastics, removable head (1H2)  
plywood (1D)  
steel, removable head (1A2)

[plastics, expanded \(4H1\) not permitted why? Ask UN](#)

## Packing Instruction 139

Cargo aircraft only

### General requirements

The following provisions must be met:

- 1) Part 4, Chapter 1.1 requirements, including:

#### Securing inner packagings

— Inner packagings shall be secured and cushioned as required by 4.1.1.9 [\[This paragraph needs to be reviewed at UN to make it applicable to articles\]](#)

- 2) Part 4, Chapter 2 requirements; and
- 3) Part 4 Chapter 3;3.1 to 3.3 requirements.

<i>Inner packagings</i>	<i>Intermediate packagings</i>	<i>Total quantity per package — passenger</i>	<i>Total quantity per package — cargo</i>
<b>Bags</b>			
plastic			
<b>Receptacles</b>			
fibreboard			
metal			
plastics	Not necessary	Forbidden	75 kg
wood			
<b>Reels</b>			
<b>Sheets</b>			
paper			
plastics			

### ADDITIONAL PACKING REQUIREMENTS

- For UN Nos. [0065](#), [0102](#), 0104, 0289 and [0290](#), the ends of the detonating cord shall be sealed, for example, by a plug firmly fixed so that the explosive cannot escape. The ends of flexible detonating cord shall be fastened securely
- For UN [0065](#) and UN 0289, inner packagings are not required when they are in coils.

[\[All the UN nos. marked in red are Forbidden/Forbidden BUT appear in the current PI\]](#)

### OUTER PACKAGINGS

<i>Boxes</i>	<i>Drums</i>
aluminium (4B)	aluminium, removable head (1B2)
fibreboard (4G)	fibreboard (1G)
natural wood, ordinary (4C1)	plastics, removable head (1H2)
natural wood, sift-proof walls (4C2)	plywood (1D)
plywood (4D)	steel, removable head (1A2)
plastics, solid (4H2)	
reconstituted wood (4F)	
steel (4A)	

## Packing Instruction 140

Passenger and cargo aircraft

### General requirements

The following provisions must be met:

- 1) Part 4, Chapter 1.1 requirements, including:

#### Securing inner packagings

— Inner packagings shall be secured and cushioned as required by 4.1.1.9 [This paragraph needs to be reviewed at UN to make it applicable to articles]

- 2) Part 4, Chapter 2 requirements; and

- 3) Part 4 Chapter 3;3.1 to 3.3 requirements.

<i>Inner packagings</i>	<i>Intermediate packagings</i>	<i>Total quantity per package — passenger</i>	<i>Total quantity per package — cargo</i>
<b>Bags</b> plastics		Forbidden	For UN 0066: 75 kg
<b>Reels</b>	Not necessary	Except for UN 0105 25kg	For UN 0105: 100 kg
<b>Sheets</b> paper, kraft plastics			

### ADDITIONAL PACKING REQUIREMENTS

- For UN 0105, no inner packagings are required if the ends are sealed
- For UN 0101, the packaging shall be sift-proof except when the fuse is covered by a paper tube and both ends of the tube are covered with removable caps.
- For UN 0101, steel or aluminium boxes or drums shall not be used.

[All the UN nos. marked in red are Forbidden/Forbidden BUT appear in the current PI]

### OUTER PACKAGINGS

#### Boxes

aluminium (4B)  
fibreboard (4G)  
natural wood, ordinary (4C1)  
natural wood, sift-proof walls (4C2)  
plywood (4D)  
plastics, solid (4H2)  
reconstituted wood (4F)  
steel (4A)

#### Drums

aluminium, removable head (1B2)  
fibreboard (1G)  
plastics, removable head (1H2)  
plywood (1D)  
steel, removable head (1A2)

## Packing Instruction 141

Passenger and cargo aircraft

### **General requirements**

The following provisions must be met:

- 1) Part 4, Chapter 1.1 requirements, including:

#### **Securing inner packagings**

— Inner packagings shall be secured and cushioned as required by 4.1.1.9 [This paragraph needs to be reviewed at UN to make it applicable to articles]

- 2) Part 4, Chapter 2 requirements; and
- 3) Part 4 Chapter 3;3.1 to 3.3 requirements.

<i>Inner packagings</i>	<i>Intermediate packagings</i>	<i>Total quantity per package — passenger</i>	<i>Total quantity per package — cargo</i>
<b>Receptacles</b>			
fibreboard metal plastics wood		Forbidden Except for UN 0110, 0367, 0368 25kg	For UN 0257, 0317, 0410, 0452: 75 kg
<b>Trays fitted with dividing partitions</b>	Not necessary		For UN 0110, 0367, 0368: 100 kg
plastics wood			
<b>Dividing partitions in the outer packagings</b>			

### **OUTER PACKAGINGS**

#### *Boxes*

aluminium (4B)  
fibreboard (4G)  
natural wood, ordinary (4C1)  
natural wood, sift-proof walls (4C2)  
plywood (4D)  
plastics, solid (4H2)  
reconstituted wood (4F)  
steel (4A)

#### *Drums*

aluminium, removable head (1B2)  
fibreboard (1G)  
plastics, removable head (1H2)  
plywood (1D)  
steel, removable head (1A2)

**Packing Instruction 142**

Passenger and cargo aircraft

**General requirements**

The following provisions must be met:

- 1) Part 4, Chapter 1.1 requirements, including:

**Securing inner packagings**

— Inner packagings shall be secured and cushioned as required by 4.1.1.9 [\[This paragraph needs to be reviewed at UN to make it applicable to articles\]](#)

- 2) Part 4, Chapter 2 requirements; and
- 3) Part 4 Chapter 3;3.1 to 3.3 requirements.

<i>Inner packagings</i>	<i>Intermediate packagings</i>	<i>Total quantity per package — passenger</i>	<i>Total quantity per package — cargo</i>
<b>Bags</b>			
paper			
plastic			
<b>Receptacles</b>			
fibreboard			
metal			
plastics	Not necessary	Forbidden Except for UN 0131, 0454 25kg	75 kg Except for UN 0131, 0454: 100 kg
wood			
<b>Trays fitted with dividing partitions</b>			
plastics			
wood			
<b>Dividing partitions in the outer packagings</b>			

**OUTER PACKAGINGS***Boxes*

aluminium (4B)  
fibreboard (4G)  
natural wood, ordinary (4C1)  
natural wood, sift-proof walls (4C2)  
plywood (4D)  
plastics, solid (4H2)  
reconstituted wood (4F)  
steel (4A)

*Drums*

aluminium, removable head (1B2)  
fibreboard (1G)  
plastics, removable head (1H2)  
plywood (1D)  
steel, removable head (1A2)

## Packing Instruction 143

Cargo aircraft only

### **General requirements**

The following provisions must be met:

- 1) Part 4, Chapter 1.1 requirements, including:

#### **Securing inner packagings**

— Inner packagings shall be secured and cushioned as required by 4.1.1.9 [This paragraph needs to be reviewed at UN to make it applicable to articles]

- 2) Part 4, Chapter 2 requirements; and
- 3) Part 4 Chapter 3;3.1 to 3.3 requirements.

<i>Inner packagings</i>	<i>Intermediate packagings</i>	<i>Total quantity per package — passenger</i>	<i>Total quantity per package — cargo</i>
<b>Bags</b>			
paper, kraft plastics textile textile, rubberized			
<b>Receptacles</b>			
fibreboard metal plastics	Not necessary	Forbidden	75 kg
<b>Trays fitted with dividing partitions</b>			
plastics wood			

### **ADDITIONAL PACKING REQUIREMENTS**

- For UN Nos. 0271, 0272, 0415 and 0491, when metal packagings are used, metal packagings shall be so constructed that the risk of explosion, by reason of increase in internal pressure from internal or external causes is prevented.  
[All the UN nos. marked in red are Forbidden/Forbidden BUT appear in the current PI]
- Instead of the above inner and outer packagings, composite packagings (6HH2) (plastic receptacle with outer solid box) may be used.

**OUTER PACKAGINGS**

*Boxes*

aluminium (4B)  
fibreboard (4G)  
natural wood, ordinary (4C1)  
natural wood, sift-proof walls (4C2)  
plywood (4D)  
plastics, solid (4H2)  
reconstituted wood (4F)  
steel (4A)

*Drums*

aluminium, removable head (1B2)  
fibreboard (1G)  
plastics, removable head (1H2)  
plywood (1D)  
steel, removable head (1A2)

— END —