



Organisation de l'aviation civile internationale

NOTE DE TRAVAIL

DGP/23-WP/29
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GROUPE D'EXPERTS SUR LES MARCHANDISES DANGEREUSES (DGP)

VINGT-TROISIÈME RÉUNION

Montréal, 11 – 21 octobre 2011

Point 3 : Élaboration de recommandations relatives à des amendements du *Supplément aux Instructions techniques pour la sécurité du transport aérien des marchandises dangereuses* (Doc 9284, Supplément) à introduire dans l'édition de 2013-2014

**RÉVISION DES RENSEIGNEMENTS SUR LES MARCHANDISES DANGEREUSES
DE LA CLASSE 1**

(Note présentée par J. McLaughlin)

ADDITIF/RECTIFICATIF

Remplacer « — FIN — » à la page C-2 de la note DGP/23-WP/29 par « ----- ».

Ajouter l'Appendice D (ci-joint) à la note DGP/23-WP/29.

DGP/23-WP/29
Appendix D
English only

APPENDIX D

EXTRACT FROM THE 17TH EDITION OF THE UN MODEL REGULATIONS

P099	PACKING INSTRUCTION	P099
Only packagings which are approved by the competent authority for these goods may be used (see 4.1.3.7). A copy of the competent authority approval shall accompany each consignment or the transport document shall include an indication that the packaging was approved by the competent authority.		

P101	PACKING INSTRUCTION	P101
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..."		

P110(a)	PACKING INSTRUCTION	P110(a)
The following packagings are authorized, provided that the general packing provisions of 4.1.1, 4.1.3 and special packing provisions of 4.1.5 are met:		
Inner packagings	Intermediate packagings	Outer packagings
Bags plastics textile, plastic coated or lined rubber textile, rubberised textile	Bags plastics textile, plastic coated or lined rubber textile, rubberized	Drums steel (1A1, 1A2) metal, other than steel or aluminium (1N1, 1N2) plastics (1H1, 1H2)
Receptacles		
wood		
Additional requirements:		
1. The intermediate packagings shall be filled with water saturated material such as an anti-freeze solution or wetted cushioning. 2. Outer packagings shall be filled with water saturated material such as an anti-freeze solution or wetted cushioning. Outer packagings shall be constructed and sealed to prevent evaporation of the wetting solution, except for UN 0224 when carried dry.		

P110(b)	PACKING INSTRUCTION	P110(b)
The following packagings are authorized, provided that the general packing provisions of 4.1.1, 4.1.3 and special packing provisions of 4.1.5 are met:		
Inner packagings	Intermediate packagings	Outer packagings
Receptacles metal wood rubber, conductive plastics, conductive	Dividing partitions metal wood plastics fibreboard	Boxes natural wood, sift-proof wall (4C2) plywood (4D) reconstituted wood (4F)
Bags		
rubber, conductive plastics, conductive		
Special packing provision:		
PP42 For UN Nos. 0074, 0113, 0114, 0129, 0130, 0135 and 0224, the following conditions shall be met:		
(a) Inner packagings shall not contain more than 50 g of explosive substance (quantity corresponding to dry substance); (b) Compartments between dividing partitions shall not contain more than one inner packaging, firmly fitted; and (c) The outer packaging may be partitioned into up to 25 compartments.		

P111	PACKING INSTRUCTION		P111
Inner packagings	Intermediate packagings	Outer packagings	
Bags paper, waterproofed plastics textile, rubberized	Not necessary	Boxes steel (4A) aluminium (4B) other metal (4N) natural wood, ordinary (4C1) natural wood, sift-proof (4C2) plywood (4D) reconstituted wood (4F) fibreboard (4G) plastics, expanded (4H1) plastics, solid (4H2)	
Receptacles wood		Drums steel (1A1, 1A2) aluminium (1B1, 1B2) other metal (1N1, 1N2) plywood (1D) fibre (1G) plastics (1H1, 1H2)	
Sheets plastics textile, rubberized			

Special packing provision:

PP43 For UN 0159, inner packagings are not required when metal (1A2 or 1B2) or plastics (1H2) drums are used as outer packagings.

P112(a)	PACKING INSTRUCTION (Solid wetted, 1.1D)		P112(a)
Inner packagings	Intermediate packagings	Outer packagings	
Bags paper, multiwall, water resistant textile textile, rubberised woven plastics	Bags plastics textile, plastic coated or lined	Boxes steel (4A) aluminium (4B) other metal (4N) natural wood, ordinary (4C1) natural wood, sift-proof (4C2) plywood (4D) reconstituted wood (4F) fibreboard (4G) plastics, expanded (4H1) plastics, solid (4H2)	
Receptacles metal plastics wood	Receptacles metal plastics wood	Drums steel (1A1, 1A2) aluminium (1B1, 1B2) other metal (1N1, 1N2) plywood (1D) fibre (1G) plastics (1H1, 1H2)	

Additional requirement:
Intermediate packagings are not required if leakproof removable head drums are used as the outer packaging.

Special packing provisions:

PP26 For UN Nos. 0004, 0076, 0078, 0154, 0219 and 0394, packagings shall be lead free.

PP45 For UN 0072 and UN 0226, intermediate packagings are not required.

P112(b)	PACKING INSTRUCTION (Solid dry, other than powder 1.ID)		P112(b)
Inner packagings	Intermediate packagings	Outer packagings	
Bags paper, kraft paper, multiwall, water resistant plastics textile textile, rubberised woven plastics	Bags (for UN 0150 only) plastics textile, plastic coated or lined	Bags woven plastics, sift-proof (5H2) woven plastics, water-resistant (5H3) plastics, film (5H4) textile, sift-proof (5L2) textile, water resistant (5L3) paper, multiwall, water resistant (5M2)	Boxes steel (4A) aluminium (4B) other metal (4N) natural wood, ordinary (4C1) natural wood, sift-proof (4C2) plywood (4D) reconstituted wood (4F) fibreboard (4G) plastics, expanded (4H1) plastics, solid (4H2)
Special packing provisions:			
PP26 For UN Nos. 0004, 0076, 0078, 0154, 0216, 0219 and 0386, packagings shall be lead free.			
PP46 For UN 0209, bags, sift-proof (5H2) are recommended for flake or prilled TNT in the dry state and a maximum net mass of 30 kg.			
PP47 For UN 0222 inner packagings are not required when the outer packaging is a bag.			

P112(c)	PACKING INSTRUCTION (Solid dry powder 1.1D)		P112(c)
The following packagings are authorized, provided that the general packing provisions of 4.1.1, 4.1.3 and special packing provisions of 4.1.5 are met:			
Inner packagings	Intermediate packagings	Outer packagings	
Bags paper, multiwall, water resistant plastics woven plastics	Bags paper, multiwall, water resistant with inner lining plastics	Boxes steel (4A) aluminium (4B) other metal (4N) natural wood, ordinary (4C1) natural wood, sift-proof (4C2) plywood (4D) reconstituted wood (4F) fibreboard (4G) plastics, solid (4H2)	
Receptacles fibreboard metal plastics wood	Receptacles metal plastics wood	Drums steel (1A1, 1A2) aluminium (1B1, 1B2) other metal (1N1, 1N2) plywood (1D) fibre (1G) plastics (1H1, 1H2)	
Additional requirements:			
1. Inner packagings are not required if drums are used as the outer packaging. 2. The packaging shall be sift-proof.			
Special packing provision:			
PP26 For UN Nos. 0004, 0076, 0078, 0154, 0216, 0219 and 0386, packagings shall be lead free.			
PP46 For UN 0209, bags, sift-proof (5H2) are recommended for flake or prilled TNT in the dry state and a maximum net mass of 30 kg.			
PP48 For UN 0504, metal packagings shall not be used.			

PACKING INSTRUCTION		
P113		P113
The following packagings are authorized, provided that the general packing provisions of 4.1.1 , 4.1.3 and special packing provisions of 4.1.5 are met:		
Inner packagings	Intermediate packagings	Outer packagings
Bags paper plastics textile, rubberised	Not necessary	Boxes steel (4A) aluminium (4B) other metal (4N) natural wood, ordinary (4C1) natural wood, sift-proof walls (4C2) plywood (4D) reconstituted wood (4F) fibreboard (4G) plastics, solid (4H2)
Receptacles fibreboard metal plastics wood		Drums steel (1A1, 1A2) aluminium (1B1, 1B2) other metal (1N1, 1N2) plywood (1D) fibre (1G) plastics (1H1, 1H2)
Additional requirement: The packaging shall be sift-proof.		
Special packing provisions: PP49 For UN 0094 and UN 0305, no more than 50 g of substance shall be packed in an inner packaging. PP50 For UN 0027, inner packagings are not necessary when drums are used as the outer packaging. PP51 For UN 0028, paper kraft or waxed paper sheets may be used as inner packagings.		

P114(a)	PACKING INSTRUCTION (Solid wetted)		P114(a)
Inner packagings	Intermediate packagings	Outer packagings	
The following packagings are authorized, provided that the general packing provisions of 4.1.1, 4.1.3 and special packing provisions of 4.1.5 are met:			
Bags plastics woven plastics	Bags plastics	Boxes steel (4A) metal, other than steel or aluminium (4N) natural wood, ordinary (4C1) natural wood, sift-proof walls (4C2) plywood (4D) reconstituted wood (4F) fibreboard (4G) plastics, solid (4H2)	
Receptacles metal plastics wood	Receptacles metal plastics	Drums steel (1A1, 1A2) aluminium (1B1, 1B2) other metal (1N1, 1N2) fibre (1G) plastics (1H1, 1H2)	
	Dividing partitions wood		
Additional requirement: Intermediate packagings are not required if leakproof removable head drums are used as the outer packaging.			
Special packing provisions:			
PP26 For UN Nos. 0077, 0132, 0234, 0235 and 0236, packagings shall be lead free.			
PP43 For UN 0342, inner packagings are not required when metal (1A2, 1B2 or 1N2) or plastics (1H2) drums are used as outer packagings.			

P114(b)	PACKING INSTRUCTION (Solid dry)		P114(b)
Inner packagings	Intermediate packagings	Outer packagings	
The following packagings are authorized, provided that the general packing provisions of 4.1.1, 4.1.3 and special packing provisions of 4.1.5 are met:			
Bags	Not necessary	Boxes	
paper, kraft		natural wood, ordinary (4C1)	
plastics		natural wood, sift-proof walls (4C2)	
textile, sift-proof		plywood (4D)	
woven plastics, sift-proof		reconstituted wood (4F)	
Receptacles		fibreboard (4G)	
fibreboard		Drums	
metal		steel (1A1, 1A2)	
paper		aluminium (1B1, 1B2)	
woven plastics, sift-proof		other metal (1N1, 1N2)	
wood		plywood (1D)	
		fibre (1G)	
		plastics (1H1, 1H2)	
Special packing provisions:			
PP26	For UN Nos. 0077, 0132, 0234, 0235 and 0236, packagings shall be lead free.		
PP48	For UN Nos. 0508 and 0509, metal packagings shall not be used.		
PP50	For UN Nos. 0160, 0161 and 0508, inner packagings are not necessary if drums are used as the outer packaging.		
PP52	For UN 0160 and UN 0161, when metal drums (1A1, 1A2, 1B1, 1B2, 1N1 or 1N2) 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.		

PACKING INSTRUCTION		
P115		P115
The following packagings are authorized, provided that the general packing provisions of 4.1.1, 4.1.3 and special packing provisions of 4.1.5 are met:		
Inner packagings	Intermediate packagings	Outer packagings
Receptacles plastics wood	Bags plastics in metal receptacles Drums metal Receptacles wood	Boxes natural wood, ordinary (4C1) natural wood, sift-proof walls (4C2) plywood (4D) reconstituted wood (4F) Drums steel (1A1, 1A2) aluminium (1B1, 1B2) other metal (1N1, 1N2) plywood (1D) fibre (1G) plastics (1H1, 1H2)
Special packing provisions:		
PP45	For UN 0144, intermediate packagings are not required.	
PP53	For UN Nos. 0075, 0143, 0495 and 0497, when boxes are used as the outer packaging, inner packagings shall have taped screw cap closures and be not more than 5 litres capacity each. Inner packagings shall be surrounded with non-combustible absorbent cushioning materials. The amount of absorbent cushioning material shall be sufficient to absorb the liquid contents. Metal receptacles shall be cushioned from each other. Net mass of propellant is limited to 30 kg for each package when outer packagings are boxes.	
PP54	For UN Nos. 0075, 0143, 0495 and 0497, when drums are used as the outer packaging and when intermediate packagings are drums, they shall be surrounded with non-combustible cushioning material in a quantity sufficient to absorb the liquid contents. A composite packaging consisting of a plastic receptacle in a metal drum may be used instead of the inner and intermediate packagings. The net volume of propellant in each package shall not exceed 120 litres.	
PP55	For UN 0144, absorbent cushioning material shall be inserted.	
PP56	For UN 0144, metal receptacles may be used as inner packagings.	
PP57	For UN Nos. 0075, 0143, 0495 and 0497, bags shall be used as intermediate packagings when boxes are used as outer packagings.	
PP58	For UN Nos. 0075, 0143, 0495 and 0497, drums shall be used as intermediate packagings when drums are used as outer packagings.	
PP59	For UN 0144, fibreboard boxes (4G) may be used as outer packagings.	
PP60	For UN 0144, aluminium drums (1B1 and 1B2) and metal, other than steel or aluminium, drums (1N1 and 1N2) shall not be used.	

P116	PACKING INSTRUCTION		P116
Inner packagings	Intermediate packagings	Outer packagings	
The following packagings are authorized, provided that the general packing provisions of 4.1.1, 4.1.3 and special packing provisions of 4.1.5 are met:			
Bags paper, water and oil resistant plastics textile, plastic coated or lined woven plastics, sift-proof	Not necessary	Bags woven plastics (5H1) paper, multiwall, water resistant (5M2) plastics, film (5H4) textile, sift-proof (5L2) textile, water resistant (5L3)	
Receptacles fibreboard, water resistant metal plastics		Boxes steel (4A) aluminium (4B) other metal (4N) natural wood, ordinary (4C1) natural wood, sift-proof walls (4C2) plywood (4D) reconstituted wood (4F) fibreboard (4G) plastics, solid (4H2)	
Sheets paper, water resistant paper, waxed plastics		Drums steel (1A1, 1A2) aluminium (1B1, 1B2) other metal (1N1, 1N2) plywood (1D) fibre (1G) plastics (1H1, 1H2)	
		Jerricans steel (3A1, 3A2) plastics (3H1, 3H2)	
Special packing provisions:			
PP61	For UN Nos. 0082, 0241, 0331 and 0332, inner packagings are not required if leakproof removable head drums are used as the outer packaging.		
PP62	For UN Nos. 0082, 0241, 0331 and 0332, inner packagings are not required when the explosive is contained in a material impervious to liquid.		
PP63	For UN 0081, inner packagings are not required when contained in rigid plastics which is impervious to nitric esters.		
PP64	For UN 0331, inner packagings are not required when bags (5H2), (5H3) or (5H4) are used as outer packagings.		
PP65	For UN Nos. 0082, 0241, 0331 and 0332, bags (5H2 or 5H3) may be used as outer packagings.		
PP66	For UN 0081, bags shall not be used as outer packagings.		

P130	PACKING INSTRUCTION		P130
The following packagings are authorized, provided that the general packing provisions of 4.1.1, 4.1.3 and special packing provisions of 4.1.5 are met:			
Inner packagings	Intermediate packagings	Outer packagings	
Not necessary	Not necessary	Boxes steel (4A) aluminium (4B) other metal (4N) natural wood, ordinary (4C1) natural wood, sift-proof walls (4C2) plywood (4D) reconstituted wood (4F) fibreboard (4G) plastics, expanded (4H1) plastics, solid (4H2) Drums steel (1A1, 1A2) aluminium (1B1, 1B2) other metal (1N1, 1N2) plywood (1D) fibre (1G) plastics (1H1, 1H2)	
Special packing provision:			
PP67 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.			

PACKING INSTRUCTION		
The following packagings are authorized, provided that the general packing provisions of 4.1.1, 4.1.3 and special packing provisions of 4.1.5 are met:		
Inner packagings	Intermediate packagings	Outer packagings
Bags	Not necessary	Boxes steel (4A) aluminium (4B) other metal (4N) natural wood, ordinary (4C1) natural wood, sift-proof walls (4C2) plywood (4D) reconstituted wood (4F) fibreboard (4G)
paper plastics fibreboard metal plastics wood		Drums steel (1A1, 1A2) aluminium (1B1, 1B2) other metal (1N1, 1N2) plywood (1D) fibre (1G) plastics (1H1, 1H2)
Reels		
Special packing provision:		
PP68 For UN Nos. 0029, 0267 and 0455, bags and reels shall not be used as inner packagings.		

PACKING INSTRUCTION		P132(a)
(Articles consisting of closed metal, plastics or fibreboard casings that contain a detonating explosive, or consisting of plastics-bonded detonating explosives)		
The following packagings are authorized, provided that the general packing provisions of 4.1.1, 4.1.3 and special packing provisions of 4.1.5 are met:		
Inner packagings	Intermediate packagings	Outer packagings
Not necessary	Not necessary	Boxes steel (4A) aluminium (4B) other metal (4N) wood, natural, ordinary (4C1) wood, natural, sift-proof walls (4C2) plywood (4D) reconstituted wood (4F) fibreboard (4G) plastics, solid (4H2)

P132(b)	PACKING INSTRUCTION (Articles without closed casings)		P132(b)
Inner packagings	Intermediate packagings	Outer packagings	
The following packagings are authorized, provided that the general packing provisions of 4.1.1, 4.1.3 and special packing provisions of 4.1.5 are met:			
Receptacles	Not necessary	Boxes	
fibreboard		steel (4A)	
metal		aluminium (4B)	
plastics		other metal (4N)	
wood		natural wood, ordinary (4C1)	
Sheets		natural wood, sift-proof walls (4C2)	
paper		plywood (4D)	
plastics		reconstituted wood (4F)	
		fibreboard (4G)	
		plastics, solid (4H2)	

P133	PACKING INSTRUCTION		P133
Inner packagings	Intermediate packagings	Outer packagings	
The following packagings are authorized, provided that the general packing provisions of 4.1.1, 4.1.3 and special packing provisions of 4.1.5 are met:			
Receptacles	Receptacles	Boxes	
fibreboard	fibreboard	steel (4A)	
metal	metal	aluminium (4B)	
plastics	plastics	other metal (4N)	
wood	wood	natural wood, ordinary (4C1)	
Trays, fitted with dividing partitions		natural wood, sift-proof walls (4C2)	
fibreboard		plywood (4D)	
plastics		reconstituted wood (4F)	
wood		fibreboard (4G)	
		plastics, solid (4H2)	
Additional requirement: Receptacles are only required as intermediate packagings when the inner packagings are trays.			
Special packing provision:			
PP69 For UN Nos. 0043, 0212, 0225, 0268 and 0306, trays shall not be used as inner packagings.			

PACKING INSTRUCTION		
P134		P134
The following packagings are authorized, provided that the general packing provisions of 4.1.1, 4.1.3 and special packing provisions of 4.1.5 are met:		
Inner packagings	Intermediate packagings	Outer packagings
Bags water resistant	Not necessary	Boxes steel (4A) aluminium (4B) other metal (4N) natural wood, ordinary (4C1) natural wood, sift-proof walls (4C2) plywood (4D) reconstituted wood (4F) fibreboard (4G) plastics, expanded (4H1) plastics, solid (4H2)
Receptacles metal plastics wood		
Sheets fibreboard, corrugated		
Tubes fibreboard		Drums steel (1A1, 1A2) aluminium (1B1, 1B2) other metal (1N1, 1N2) plywood (1D) fibre (1G) plastics (1H1, 1H2)

PACKING INSTRUCTION		
P135		P135
The following packagings are authorized, provided that the general packing provisions of 4.1.1, 4.1.3 and special packing provisions of 4.1.5 are met:		
Inner packagings	Intermediate packagings	Outer packagings
Bags paper plastics fibreboard metal plastics wood	Not necessary	Boxes steel (4A) aluminium (4B) other metal (4N) natural wood, ordinary (4C1) natural wood, sift-proof walls (4C2) plywood (4D) reconstituted wood (4F) fibreboard (4G) plastics, expanded (4H1) plastics, solid (4H2)
Sheets paper plastics		Drums steel (1A1, 1A2) aluminium (1B1, 1B2) other metal (1N1, 1N2) plywood (1D) fibre (1G) plastics (1H1, 1H2)

PACKING INSTRUCTION		
P136		P136
The following packagings are authorized, provided that the general packing provisions of 4.1.1, 4.1.3 and special packing provisions of 4.1.5 are met:		
Inner packagings	Intermediate packagings	Outer packagings
Bags plastics textile fibreboard plastics wood	Not necessary	Boxes steel (4A) aluminium (4B) other metal (4N) natural wood, ordinary (4C1) natural wood, sift-proof walls (4C2) plywood (4D) reconstituted wood (4F) fibreboard (4G) plastics, solid (4H2)
Dividing portions in the outer packagings		Drums steel (1A1, 1A2) aluminium (1B1, 1B2) other metal (1N1, 1N2) plywood (1D) fibre (1G) plastics (1H1, 1H2)

PACKING INSTRUCTION		
P137		P137
The following packagings are authorized, provided that the general packing provisions of 4.1.1, 4.1.3 and special packing provisions of 4.1.5 are met:		
Inner packagings	Intermediate packagings	Outer packagings
Bags plastics	Not necessary	Boxes steel (4A) aluminium (4B) other metal (4N) natural wood, ordinary (4C1) natural wood, sift-proof walls (4C2) plywood (4D) reconstituted wood (4F) fibreboard (4G)
Boxes fibreboard wood		Drums steel (1A1, 1A2) aluminium (1B1, 1B2) other metal (1N1, 1N2) plywood (1D) fibre (1G) plastics (1H1, 1H2)
Tubes fibreboard metal plastics		
Dividing partitions in the outer packagings		
Special packing provision:		
PP70	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.	

PACKING INSTRUCTION		
The following packagings are authorized, provided that the general packing provisions of 4.1.1, 4.1.3 and special packing provisions of 4.1.5 are met:		
Inner packagings	Intermediate packagings	Outer packagings
Bags plastics	Not necessary	Boxes steel (4A) aluminium (4B) other metal (4N) natural wood, ordinary (4C1) natural wood, sift-proof walls (4C2) plywood (4D) reconstituted wood (4F) fibreboard (4G) plastics, solid (4H2) Drums steel (1A1, 1A2) aluminium (1B1, 1B2) other metal (1N1, 1N2) plywood (1D) fibre (1G) plastics (1H1, 1H2)
Additional requirement: If the ends of the articles are sealed, inner packagings are not necessary.		

PACKING INSTRUCTION		
The following packagings are authorized, provided that the general packing provisions of 4.1.1, 4.1.3 and special packing provisions of 4.1.5 are met:		
Inner packagings	Intermediate packagings	Outer packagings
Bags plastics	Not necessary	Boxes steel (4A) aluminium (4B) other metal (4N) natural wood, ordinary (4C1) natural wood, sift-proof walls (4C2) plywood (4D) reconstituted wood (4F) fibreboard (4G) plastics, solid (4H2) Drums steel (1A1, 1A2) aluminium (1B1, 1B2) other metal (1N1, 1N2) plywood (1D) fibre (1G) plastics (1H1, 1H2)
Receptacles metal plastics wood		
Reels		
Sheets paper plastics		

Special packing provisions:

- PP71** 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.
- PP72** For UN 0065 and UN 0289, inner packagings are not required when they are in coils.

PACKING INSTRUCTION		
P140		P140
The following packagings are authorized, provided that the general packing provisions of 4.1.1 , 4.1.3 and special packing provisions of 4.1.5 are met:		
Inner packagings	Intermediate packagings	Outer packagings
Bags plastics	Not necessary	Boxes steel (4A) aluminium (4B) other metal (4N) natural wood, ordinary (4C1) natural wood, sift-proof walls (4C2) plywood (4D) reconstituted wood (4F) fibreboard (4G) plastics, solid (4H2)
Receptacles wood		Drums steel (1A1, 1A2) aluminium (1B1, 1B2) other metal (1N1, 1N2) plywood (1D) fibre (1G) plastics (1H1, 1H2)
Reels		
Sheets paper, kraft plastics		
Special packing provisions:		
PP73 For UN 0105, no inner packagings are required if the ends are sealed. PP74 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. PP75 For UN 0101, steel, aluminium or other metal boxes or drums shall not be used.		

PACKING INSTRUCTION		
P141		P141
The following packagings are authorized, provided that the general packing provisions of 4.1.1 , 4.1.3 and special packing provisions of 4.1.5 are met:		
Inner packagings	Intermediate packagings	Outer packagings
Receptacles fibreboard metal plastics wood	Not necessary	Boxes steel (4A) aluminium (4B) other metal (4N) natural wood, ordinary (4C1) natural wood, sift-proof walls (4C2) plywood (4D) reconstituted wood (4F) fibreboard (4G) plastics, solid (4H2)
Trays, fitted with dividing partitions plastics wood		Drums steel (1A1, 1A2) aluminium (1B1, 1B2) other metal (1N1, 1N2) plywood (1D) fibre (1G) plastics (1H1, 1H2)
Dividing partitions in the outer packagings		

PACKING INSTRUCTION		
P142		P142
The following packagings are authorized, provided that the general packing provisions of 4.1.1, 4.1.3 and special packing provisions of 4.1.5 are met:		
Inner packagings	Intermediate packagings	Outer packagings
Bags paper plastics	Not necessary	Boxes steel (4A) aluminium (4B) other metal (4N) natural wood, ordinary (4C1) natural wood, sift-proof walls (4C2) plywood (4D) reconstituted wood (4F) fibreboard (4G) plastics, solid (4H2)
Receptacles fibreboard metal plastics wood		Drums steel (1A1, 1A2) aluminium (1B1, 1B2) other metal (1N1, 1N2) plywood (1D) fibre (1G) plastics (1H1, 1H2)
Sheets paper		
Trays, fitted with dividing partitions plastics		

PACKING INSTRUCTION		
P143		P143
The following packagings are authorized, provided that the general packing provisions of 4.1.1, 4.1.3 and special packing provisions of 4.1.5 are met:		
Inner packagings	Intermediate packagings	Outer packagings
Bags paper, kraft plastics textile textile, rubberized	Not necessary	Boxes steel (4A) aluminium (4B) other metal (4N) natural wood, ordinary (4C1) natural wood, sift-proof walls (4C2) plywood (4D) reconstituted wood (4F) fibreboard (4G) plastics, solid (4H2)
Receptacles fibreboard metal plastics wood		Drums steel (1A1, 1A2) aluminium (1B1, 1B2) other metal (1N1, 1N2) plywood (1D) fibre (1G) plastics (1H1, 1H2)
Trays, fitted with dividing partitions plastics		

Additional requirement:

Instead of the above inner and outer packagings, composite packagings (6HH2) (plastic receptacle with outer solid box) may be used.

Special packing provision:

PP76 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.

PACKING INSTRUCTION		
P144		P144
The following packagings are authorized, provided that the general packing provisions of 4.1.1, 4.1.3 and special packing provisions of 4.1.5 are met:		
Inner packagings	Intermediate packagings	Outer packagings
Receptacles fibreboard metal wood	Not necessary	Boxes steel (4A) aluminium (4B) other metal (4N) natural wood, ordinary (4C1) with metal liner plywood (4D) with metal liner reconstituted wood (4F) with metal liner plastics, expanded (4H1) plastics, solid (4H2)
Dividing partitions in the outer packagings		Drums steel (1A1, 1A2) aluminium (1B1, 1B2) other metal (1N1, 1N2) plastics (1H1, 1H2)
Special packing provision:		
PP77 For UN Nos. 0248 and 0249, packagings shall be protected against the ingress of water. When water-activated contrivances are transported unpackaged, they shall be provided with at least two independent protective features which prevent the ingress of water.		