DANGEROUS GOODS PANEL

Dubai, 31 March to 4 April 2003

Agenda Item 3: Resolution, where possible, of the non-recurrent work items identified by the (ANC) or the panel
3.1 Packing Instructions
:

PACKING INSTRUCTIONS

(Presented by G. A. Leach and R. Richard)

1. INTRODUCTION

1.1 During the working group meeting that was held in Frankfurt, Panel members provided comments on draft packing instructions developed by the United States and United Kingdom. The majority of members offered their support for the work and provided constructive comments to enhance the user friendliness of the packing instructions while ensuring an adequate level of safety. On the basis of the discussion during the Frankfurt working group and comments received to date, the United States and United Kingdom have developed revised draft packing instructions for consideration by the working group. These packing instructions apply for dangerous goods in classes 3, 4, 5, 6, 8 and 9. The working group is requested to consider the packing instructions and to provide comments so that a final proposal can be developed and considered for adoption in the 2005-2006 ICAO TI at the nineteenth meeting of the Dangerous Goods Panel.

1.2 This document consists of:

Annex 1 Draft revised packing instructions
Annex 2 An example of a revised Dangerous Goods List
Annex 3 Illustrates the numbering systems for Classes 4 and 5

1.3 The working group has continued to follow the guidelines established by the Panel at DGP 18 which include:

a) simplifying the packing instructions such as by reducing the number without reducing the level of safety. The packing instructions should consist of a small number of general

instructions covering the majority of dangerous goods and a limited number of more specific instructions for specific dangerous goods or specialized articles and substances;

b) aligning the packing instructions to the greatest extent practicable with the UN packing instructions in content and layout;

c) enhancing user friendliness. The packing instructions should be clear and provide as wide a choice of packagings as possible;

d) assigning the packing instructions to specific substances on the basis of a rationalized approach; and

e) The quantities per packaging (inner and outer) should not substantially vary from the current quantities.

1.4 As indicated in Frankfurt a few small changes were made to inner quantity limits on the basis of a rationalized approach, but overall package limits shown in the dangerous goods list have not been changed and none are proposed.

1.5 The PPRs that address compatibility have been maintained pending further discussion in the notes below each packing instruction.

1.6 Paragraph 10.1.6 of the Frankfurt report listed by packing instructions comments from the Panel. The majority were editorial and have been taken into account in the revisions. The only major outstanding issue appears to be the issue of compatibility.

1.7 So far, no renumbering of the packing instructions has taken place but a comparison in Annex 3 illustrates the numbering systems for Class 5.

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Annex 1
Draft Packing Instructions

Editorial Note: We are recommending use of Times New Roman Font and have attempted to standardize the font sizes in the draft packing instructions. The format of the draft instructions is not entirely consistent amongst the various classes. The working group is requested to consider the differences in formatting and comment on the user-friendliness of each of the formats shown.

Class 3

PI 301

301	PACKING INSTRUCTION 301	301

The general packing requirements of Part 4, Chapter 1 must be met.

Aircraft hydraulic power unit fuel tanks containing a mixture of anhydrous hydrazine and methyl hydrazine (M86 fuel) and designed for installation as complete units in aircraft are acceptable, subject to either of the following conditions:

a) the unit must consist of an aluminium pressure vessel made from tubing and having welded heads. Primary containment of the fuel within this vessel must consist of a welded aluminium bladder having a maximum internal volume of 46 L. The outer vessel must have a minimum design gauge pressure of 1 275 kPa and a minimum burst gauge pressure of 2 755 kPa. Each vessel must be leak checked during manufacture and before shipment and must be found leakproof. The complete inner unit must be securely packed in non combustible cushioning material, such as vermiculite, in a strong outer tightly closed metal packaging which will adequately protect all fittings. Maximum quantity of fuel per unit and package is 42 L; or

b) the unit must consist of an aluminium pressure vessel. Primary containment of the fuel within this vessel must consist of a welded hermetically sealed fuel compartment with an elastomeric bladder having a maximum internal volume of 46 L. The pressure vessel must have a minimum design gauge pressure of 2 860 kPa and a minimum burst gauge pressure of 5 170 kPa. Each vessel must be leak-checked during manufacture and before shipment and must be found leakproof. The complete inner unit must be securely packed in non-combustible cushioning material, such as vermiculite, in a strong outer tightly closed metal packaging which will adequately protect all fittings. Maximum quantity of fuel per unit and package is 42 L.

Notes: No change. This could be formatted in a more tabular form but considering that it is so specialized there did not seem to be much benefit in reformatting it.

PI 311

311	PACKING INSTRUCTION 311	311

The general packing requirements of Part 4, Chapter 1 must be met.

The general packing requirements of Part 4, Chapter 1 must be met. Nitroglycerin solution in alcohol, UN 3064, must be shipped in IP.3 metal cans (other than aluminium) of not more than 1 L capacity each, overpacked in a wooden box (4C1, 4C2, 4D or 4F) containing not more than 5 L capacity each. Metal cans must be completely surrounded with absorbent cushioning material of sufficient quantity to absorb the entire liquid content. Wooden boxes must be completely lined with a suitable material impervious to water, alcohol and nitroglycerin.

Notes: This PI only applies to UN 3064. Added wooden boxes (4D and 4F) as authorized outer packages to be consistent with the UN Model Regulation P300. Rearranged some text for consistency. Revised the text to indicate that there must be sufficient absorbent material to absorb the entire liquid content and to require the liner to also be impervious to alcohol.

Revised PI 312

312	PACKING INSTRUCTION 312	312

A polyester resin kit or fibreglass repair kit (un 3269) consists of two components: a base material in class 3, packing group ii or iii, and an activator (organic peroxide).

The general packing requirements of Part 4, Chapter 1 must be met.

Single packagings are not permitted.

COMBINATION PACKAGINGS:

INNER:

The activator must be in IP.2 plastic packagings or metal or plastic tubes. The quantity must not exceed 125 ml per inner packaging if liquid, and 500 grams per inner packaging if solid.

The flammable liquid must be in IP.1 glass or earthenware, IP.2 plastic, IP.3 metal inner packagings.

The components may be placed in the same outer packaging provided they will not interact dangerously in the event of leakage (see 4;1.1.7).

OUTER:

	Boxes	Drums	Jerricans	
	aluminium (4B) fibreboard (4G) plywood (4D) reconstituted wood (4F) expanded plastic (4H1) solid plastic (4H2) steel (4A) wooden (4C1, 4C2)	aluminium (1B2) fibre (1G) plywood (1D) steel (1A2) plastic (1H2) other metal (1N2)	aluminium (3B2) steel (3A2) plastic (3H2)	

Notes:
-This PI only applies to Polyester resin kits, UN 3269.
- Harmonized with UN Model Regulation P302.
- Deleted reference to IP.9.
- We harmonized the inner packaging quantities with UN PI 302. This results in slight increases in inner packaging quantities for the activator when packed in metal or plastic tubes (liquids 60ml to 125ml and solids 250 g to 500g).
- We deleted the quantity limits for the flammable liquid since they were provided in kgs, the quantities were 4.75kg (except glass which was 1kg) and considering that the maximum quantity per package in Table 3-1 is 5kg. Request the working group consider adding a gross limit to the Dangerous Goods List (5kgG).
- Added additional authorized outer packagings to standardize with the new generalized Class 3 instruction and UN packing instructions.
- Request the working group consider modifying Special Provision A66 to harmonize with UN Model Regulation Special Provision 236. It is proposed that A66 be amended as follows:

A66 Polyester resin kits consist of two components: a base material (Class 3, Packing group II or III) and an activator (organic peroxide). The organic peroxide must be a formulation and type that is not forbidden for air transport. Organic peroxides that require temperature control are not authorized. The packing group shall be II or III, according to the criteria for Class 3, applied to the base material.

Revised PI Y312

Y312	PACKING INSTRUCTION	Y312

The following requirements apply to polyester resin kits (UN3269) transported as limited quantity:

The requirements of Part 3, Chapter 4 must be met.

Single packagings are not permitted.

COMBINATION PACKAGINGS:

INNER:

The activator (organic peroxide) must be in IP.2 plastic packagings or metal or plastic tubes and the quantity must not exceed 30 mL if liquid or 100 g if solid. The net quantity of activator per package must not exceed 125 mL if liquid or 500 g if solid. The flammable liquid must be in IP.1 glass or earthenware, IP.2 plastic, IP.3 metal packagings. The components may be placed in the same outer packaging provided they will not interact dangerously in the event of leakage.

OUTER:

	Boxes	Drums	Jerricans	
	aluminium fibreboard plywood reconstituted wood expanded plastic solid plastic steel wooden	aluminium fibre plywood steel plastic other metal	aluminium steel plastic	

Notes:
-This PI only applies to Polyester resin kits, UN 3269.
- Harmonized with UN Model Regulation P302.
-Deleted reference to IP.9.
-We deleted the 900 gram quantity limit for the flammable liquid since it was provided in grams and because the maximum quantity per package in Table 3-1 is 1kg.
- Added additional authorized outer packagings to standardize with the new generalized Class 3 packing instruction and the UN packing instructions.

PI 3X1
Combined PI 302, 303, 305, 307, 309 and 310

3X1 **PACKING INSTRUCTION 3X1** **3X1**

The general packing requirements of Part 4, Chapter 1 must be met.

COMBINATION PACKAGINGS:

INNER:

The following inner packagings are authorized for the indicated volumes of liquid for passenger or cargo aircraft . When a packaging is not permitted the word "prohibited" is indicated.

	Passenger Aircraft			***Cargo Aircraft***		
	PG I	*PG II*	*PG III*	*PG I*	*PG II*	*PG III*
Glass or earthenware (IP.1)	0.5	1 L	2.5 L	1 L	2.5 L	5 L
Plastic (IP.2)	Prohibited	5 L	10 L	Prohibited	5 L	10 L
Metal (IP.3, IP.3A)	1	5 L	10 L	5 L	10 L	25 L

OUTER:

Boxes	***Drums***	***Jerricans***
aluminium (4B) fibreboard (4G) plywood (4D) reconstituted wood (4F) expanded plastic (4H1) solid plastic (4H2) steel (4A) wooden (4C1, 4C2)	aluminium (1B2) fibre (1G) plywood (1D) steel (1A2) plastic (1H2) other metal (1N2)	aluminium (3B2) steel (3A2) plastic (3H2)

SINGLE PACKAGINGS:

Passenger Aircraft			***Cargo Aircraft***		
PG I	PG II	PG III	PG I	PG II	PG III
FORBIDDEN	FORBIDDEN	**Drums:** 1A1, 1A2, 1B1, 1B2, 1H1, 1H2, 1N1, and 1N2	**Drums:** 1A1, 1B1, and 1N1	**Drums:** 1A1, 1B1, 1H1, 1N1	**Drums:** 1A1, 1A2, 1B1, 1B2, 1H1, 1H2, , 1N1, and 1N2
		Jerricans: 3A1, 3A2, 3B1, 3B2, 3H1 and 3H2	**Jerricans:** 3A1 and 3B1	**Jerricans:** 3A1 3B1,and 3H1	**Jerricans:** 3A1, 3A2, 3B1, 3B2, 3H1 and 3H2
		Composites (plastic): 6HA1, 6HB1, 6HG1, 6HH1 and 6HD1.	**Composites (plastic):** 6HA1, 6HB1, 6HG1, 6HH1 and 6HD1.	**Composites (plastic):** 6HA1, 6HB1, 6HG1, 6HH1, and 6HD1.	**Composites (plastic):** 6HA1, 6HB1, 6HG1, 6HH1, 6HD1, 6H2, 6HB2, 6HC, 6HD2, 6HG2, and 6HH2
		Cylinders: As permitted in Packing Instruction 200	**Cylinders:** As permitted in Packing Instruction 200	**Cylinders:** As permitted in Packing Instruction 200	**Cylinders:** As permitted in Packing Instruction 200

Particular Packing Requirements

PPR3X1 For UN 3079 experience has shown that this substance may leak from packagings that ordinarily are leakproof to other chemicals. Special precautions should be taken to ensure that the packaging remains leak tight. Inner packagings must be packed with absorbent material in sufficient quantity to absorb the entire liquid content.

Notes: This instruction consolidates PI 302/303/305/307/309/310.
- Inner package quantity limits were not changed.
- Removed restrictions on inner packaging type based on material compatibility (see notes below).
- Inner packaging IP8 removed, now included in IP1 definition.
- Added outer packagings to harmonize with UN Model Regulations: Boxes, Expanded Plastic (4H1), Drums Other Metal (1N2), Drums

Plastic (1H2), Jerricans Plastic (3H2).

- Added specification codes for composite plastic single packagings.

-Propose to add a new PPR based on a property indicated in the IMDG Code:

For UN 3079 experience has shown that this substance may leak from packagings that ordinarily are leakproof to other chemicals. Special precautions should be taken to ensure that the packaging remains leak tight. Inner packagings must be packed with absorbent material in sufficient quantity to absorb the entire liquid content.

The UN numbers and proper shipping names assigned to PI 3X1 are:

UN#	ICAO PSN	CLASS	SUB-R	PASS PI	CARGO PI
	PG I				
UN3336	MERCAPTANS, LIQUID, FLAMMABLE, N.O.S.*	3		302	303
UN2778	MERCURY BASED PESTICIDE, LIQUID, FLAMMABLE, TOXIC*	3	6.1	302	303
UN3079	METHACRYLONITRILE, STABILIZED	3	6.1	302	303
UN2605	METHOXYMETHYL ISOCYANATE	3	6.1	302	303
UN1243	METHYL FORMATE	3		302	303
UN3273	NITRILES, FLAMMABLE, TOXIC, N.O.S.*	3	6.1	302	303
UN2059	NITROCELLULOSE SOLUTION, FLAMMABLE with not more than 12.6% nitrogen, by dry mass, and not more than 55% nitrocellulose	3		302	303
UN2762	ORGANOCHLORINE PESTICIDE, LIQUID, FLAMMABLE, TOXIC*	3	6.1	302	303
UN2784	ORGANOPHOSPHORUS PESTICIDE, LIQUID, FLAMMABLE, TOXIC*	3	6.1	302	303
UN2787	ORGANOTIN PESTICIDE, LIQUID, FLAMMABLE, TOXIC*	3	6.1	302	303
UN1263	PAINT (including paint, lacquer, enamel, stain, shellac, varnish, polish, liquid filler and liquid lacquer base)	3		302	303
UN1265	PENTANES	3		302	303
UN3021	PESTICIDE, LIQUID, FLAMMABLE, TOXIC, N.O.S.*	3	6.1	302	303
UN1267	PETROLEUM CRUDE OIL	3		302	303
UN1268	PETROLEUM DISTILLATES, N.O.S.	3		302	303
UN2766	PHENOXY PESTICIDE, LIQUID, FLAMMABLE, TOXIC*	3	6.1	302	303
UN3346	PHENOXYACETIC ACID DERIVATIVE PESTICIDE, LIQUID, FLAMMABLE, TOXIC,* flash point less than 23 degrees centigrade	3	6.1	302	303
UN2768	PHENYL UREA PESTICIDE, LIQUID, FLAMMABLE, TOXIC*	3	6.1	302	303
UN2774	PHTHALIMIDE DERIVATIVE PESTICIDE, LIQUID, FLAMMABLE, TOXIC*	3	6.1	302	303
UN1210	PRINTING INK, flammable	3		302	303
UN3350	PYRETHROID PESTICIDE, LIQUID FLAMMABLE, TOXIC*, flash point less than 23 degrees centigrade	3	6.1	302	303
UN1866	RESIN SOLUTION, flammable	3		302	303
UN2780	SUBSTITUTED NITROPHENOL PESTICIDE, LIQUID, FLAMMABLE, TOXIC*	3	6.1	302	303
UN2772	THIOCARBAMATE PESTICIDE, LIQUID, FLAMMABLE, TOXIC*, flash point less than 23 degrees centigrade	3	6.1	302	303
UN2764	TRIAZINE PESTICIDE, LIQUID, FLAMMABLE, TOXIC*	3	6.1	302	303
UN1297	TRIMETHYLAMINE, AQUEOUS SOLUTION	3	8	302	303
UN1303	VINYLIDENE CHLORIDE, STABILIZED	3		302	303
UN1308	ZIRCONIUM SUSPENDED IN A FLAMMABLE LIQUID	3		302	303

PG II

UN2362	1,1-DICHLOROETHANE	3		305	307
UN2377	1,1-DIMETHOXYETHANE	3		305	307
UN2410	1,2,3,6-TETRAHYDROPYRIDINE	3		305	307
UN3022	1,2-BUTYLENEOXIDE, STABILIZED	3		305	307
UN2372	1,2-DI-(DIMETHYLAMINO) ETHANE	3		305	307
UN1150	1,2-DICHLOROETHYLENE	3		305	307
UN2252	1,2-DIMETHOXYETHANE	3		305	307
UN2379	1,3-DIMETHYLBUTYLAMINE	3	8	305	307
UN1126	1-BROMOBUTANE	3		305	307
UN2386	1-ETHYLPIPERIDINE	3	8	305	307
UN2370	1-HEXENE	3		305	307
UN2399	1-METHYLPIPERIDINE	3	8	305	307
UN2376	2,3-DIHYDROPYRAN	3		305	307
UN2457	2,3-DIMETHYLBUTANE	3		305	307
UN2251	2,5-NORBORNADIENE,STABILIZED	3		305	307
UN2339	2-BROMOBUTANE	3		305	307
UN2340	2-BROMOETHYL ETHYL ETHER	3		305	307
UN2343	2-BROMOPENTANE	3		305	307
UN2378	2-DIMETHYLAMINOACETONITRILE	3	6.1	305	307
UN1178	2-ETHYLBUTYRALDEHYDE	3		305	307
UN2390	2-IODOBUTANE	3		305	307
UN2460	2-METHYL-2-BUTENE	3		305	307
UN2301	2-METHYLFURAN	3		305	307
UN2374	3,3-DIETHOXYPROPENE	3		305	307
UN2345	3-BROMOPROPYNE	3		305	307
UN2397	3-METHYLBUTAN-2-ONE	3		305	307
UN2535	4-METHYLMORPHOLINE	3	8	305	307
UN1088	ACETAL	3		305	307
UN1090	ACETONE	3		305	307
UN1091	ACETONE OILS	3		305	307
UN1648	ACETONITRILE	3		305	307
UN3274	ALCOHOLATES SOLUTION, N.O.S.*, in alcohol	3	8	305	307
UN3065	ALCOHOLIC BEVERAGES	3		305	307
UN1987	ALCOHOLS, N.O.S.*	3		305	307
UN2333	ALLYL ACETATE	3	6.1	305	307
UN2335	ALLYL ETHYL ETHER	3	6.1	305	307
UN2367	alpha-METHYLVALERALDEHYDE	3		305	307
UN1105	AMYL ALCOHOLS	3		305	307
UN1107	AMYL CHLORIDE	3		305	307
UN1113	AMYL NITRITE	3		305	307
UN1106	AMYLAMINE	3	8	305	307
UN2760	ARSENICAL PESTICIDE, LIQUID, FLAMMABLE, TOXIC*	3	6.1	305	307
UN1114	BENZENE	3		305	307
UN2770	BENZOIC DERIVATIVE PESTICIDE, LIQUID, FLAMMABLE, TOXIC*	3	6.1	305	307
UN2338	BENZOTRIFLUORIDE	3		305	307
UN2251	BICYCLO [2.2.1] HEPTA-2-5-DIENE, STABILIZED	3		305	307

UN2782	BIPYRIDILIUM PESTICIDE, LIQUID, FLAMMABLE, TOXIC* flash point less than 23 degrees centigrade	3	6.1	305	307
UN2342	BROMOMETHYLPROPANES	3		305	307
UN2344	BROMOPROPANES	3		305	307
UN2346	BUTANEDIONE	3		305	307
UN1120	BUTANOLS	3		305	307
UN1123	BUTYL ACETATES	3		305	307
UN2350	BUTYL METHYL ETHER	3		305	307
UN2351	BUTYL NITRITES	3		305	307
UN2352	BUTYL VINYL ETHER, STABILIZED	3		305	307
UN1129	BUTYRALDEHYDE	3		305	307
UN2411	BUTYRONITRILE	3	6.1	305	307
UN2353	BUTYRYL CHLORIDE	3	8	305	307
UN2758	CARBAMATE PESTICIDE, LIQUID, FLAMMABLE, TOXIC*	3	6.1	305	307
UN1127	CHLOROBUTANES	3		305	307
UN2354	CHLOROMETHYL ETHYL ETHER	3	6.1	305	307
UN2985	CHLOROSILANES, FLAMMABLE, CORROSIVE, N.O.S.	3	8	305	307
UN1136	COAL TAR DISTILLATES, FLAMMABLE	3		305	307
UN2776	COPPER BASED PESTICIDE, LIQUID, FLAMMABLE, TOXIC,*	3	6.1	305	307
UN3024	COUMARIN DERIVATIVE PESTICIDE, LIQUID, FLAMMABLE, TOXIC*	3	6.1	305	307
UN2241	CYCLOHEPTANE	3		305	307
UN2603	CYCLOHEPTATRIENE	3	6.1	305	307
UN2242	CYCLOHEPTENE	3		305	307
UN1145	CYCLOHEXANE	3		305	307
UN2256	CYCLOHEXENE	3		305	307
UN2358	CYCLOOCTATETRAENE	3		305	307
UN1146	CYCLOPENTANE	3		305	307
UN2246	CYCLOPENTENE	3		305	307
UN1148	DIACETONE ALCOHOL	3		305	307
UN2359	DIALLYLAMINE	3	6.1, 8	305	307
UN2047	DICHLOROPROPENES	3		305	307
UN2373	DIETHOXYMETHANE	3		305	307
UN1156	DIETHYL KETONE	3		305	307
UN2375	DIETHYL SULPHIDE	3		305	307
UN2050	DIISOBUTYLENE, ISOMERIC COMPOUND	3		305	307
UN1159	DIISOPROPYL ETHER	3		305	307
UN1158	DIISOPROPYLAMINE	3	8	305	307
UN1161	DIMETHYL CARBONATE	3		305	307
UN2381	DIMETHYL DISULPHIDE	3		305	307
UN1164	DIMETHYL SULPHIDE	3		305	307
UN1160	DIMETHYLAMINE, AQUEOUS SOLUTION	3	8	305	307
UN2263	DIMETHYLCYCLOHEXANES	3		305	307
UN1162	DIMETHYLDICHLOROSILANE	3	8	305	307
UN2380	DIMETHYLDIETHOXYSILANE	3		305	307
UN2707	DIMETHYLDIOXANES	3		305	307
UN2266	DIMETHYL-N-PROPYLAMINE	3	8	305	307

UN2384	DI-N-PROPYL ETHER	3	8	305	307
UN1165	DIOXANE	3		305	307
UN1166	DIOXOLANE	3		305	307
UN2383	DIPROPYLAMINE	3	8	305	307
UN2772	DITHIOCARBAMATE, PESTICIDE, LIQUID, FLAMMABLE, TOXIC*	3	6.1	305	307
UN3272	ESTERS, N.O.S.*	3		305	307
UN1170	ETHANOL	3		305	307
UN3271	ETHERS, N.O.S.*	3		305	307
UN1173	ETHYL ACETATE	3		305	307
UN1917	ETHYL ACRYLATE, STABILIZED	3		305	307
UN1176	ETHYL BORATE	3		305	307
UN1179	ETHYL BUTYL ETHER	3		305	307
UN1862	ETHYL CROTONATE	3		305	307
UN1190	ETHYL FORMATE	3		305	307
UN2385	ETHYL ISOBUTYRATE	3		305	307
UN2277	ETHYL METHACRYLATE	3		305	307
UN1193	ETHYL METHYL KETONE	3		305	307
UN1195	ETHYL PROPIONATE	3		305	307
UN2615	ETHYL PROPYL ETHER	3		305	307
UN1175	ETHYLBENZENE	3		305	307
UN1169	EXTRACTS, AROMATIC, LIQUID	3		305	307
UN1197	EXTRACTS, FLAVOURING, LIQUID	3		305	307
UN3286	FLAMMABLE LIQUID, TOXIC, CORROSIVE, N.O.S.*	3	6.1, 8	305	307
UN2387	FLUOROBENZENE	3		305	307
UN2388	FLUOROTOLUENES	3		305	307
UN1201	FUSEL OIL	3		305	307
UN1203	GASOLINE	3		305	307
UN2622	GLYCIDALDEHYDE	3	6.1	305	307
UN1206	HEPTANES	3		305	307
UN2458	HEXADIENE	3		305	307
UN1208	HEXANES	3		305	307
UN2391	IODOMETHYLPROPANES	3		305	307
UN1213	ISOBUTYL ACETATE	3		305	307
UN2393	ISOBUTYL FORMATE	3		305	307
UN1214	ISOBUTYLAMINE	3	8	305	307
UN2045	ISOBUTYRALDEHYDE	3		305	307
UN2284	ISOBUTYRONITRILE	3	6.1	305	307
UN2395	ISOBUTYRYL CHLORIDE	3	8	305	307
UN2287	ISOHEPTENE	3		305	307
UN2288	ISOHEXENE	3		305	307
UN1216	ISOOCTENE	3		305	307
UN1219	ISOPROPANOL	3		305	307
UN2403	ISOPROPENYL ACETATE	3		305	307
UN1220	ISOPROPYL ACETATE	3		305	307
UN2406	ISOPROPYL ISOBUTYRATE	3		305	307
UN1222	ISOPROPYL NITRATE	3		305	307
UN2409	ISOPROPYL PROPIONATE	3		305	307
UN1224	KETONES, LIQUID, N.O.S.*	3		305	307

UN3248	MEDICINE, LIQUID, FLAMMABLE, TOXIC, N.O.S.	3	6.1	305	307
UN2778	MERCURY BASED PESTICIDE, LIQUID, FLAMMABLE, TOXIC*	3	6.1	305	307
UN2396	METHACRYLALDEHYDE, STABILIZED	3	6.1	305	307
UN1230	METHANOL	3	6.1	305	307
UN1231	METHYL ACETATE	3		305	307
UN1919	METHYL ACRYLATE, STABILIZED	3		305	307
UN1237	METHYL BUTYRATE	3		305	307
UN1245	METHYL ISOBUTYL KETONE	3		305	307
UN1246	METHYL ISOPROPENYL KETONE, STABILIZED	3		305	307
UN2400	METHYL ISOVALERATE	3		305	307
UN1247	METHYL METHACRYLATE MONOMER, STABILIZED	3		305	307
UN1248	METHYL PROPIONATE	3		305	307
UN2612	METHYL PROPYL ETHER	3		305	307
UN1249	METHYL PROPYL KETONE	3		305	307
UN1234	METHYLAL	3		305	307
UN2554	METHYLALLYL CHLORIDE	3		305	307
UN1235	METHYLAMINE, AQUEOUS SOLUTION	3	8	305	307
UN2296	METHYLCYCLOHEXANE	3		305	307
UN2298	METHYLCYCLOPENTANE	3		305	307
UN2461	METHYLPENTADIENE	3		305	307
UN2398	METHYL-TERT-BUTYL ETHER	3		305	307
UN2536	METHYLTETRAHYDROFURAN	3		305	307
UN1126	n-BUTYL BROMIDE	3		305	307
UN1128	n-BUTYL FORMATE	3		305	307
UN1125	n-BUTYLAMINE	3	8	305	307
UN2278	n-HEPTENE	3		305	307
UN3273	NITRILES, FLAMMABLE, TOXIC, N.O.S.*	3	6.1	305	307
UN1261	NITROMETHANE	3		305	307
UN2945	N-METHYLBUTYLAMINE	3	8	305	307
UN2535	N-METHYLMORPHOLINE	3	8	305	307
UN1274	n-PROPANOL	3		305	307
UN1276	n-PROPYL ACETATE	3		305	307
UN1865	n-PROPYL NITRATE	3		305	307
UN2309	OCTADIENE	3		305	307
UN1262	OCTANES	3		305	307
UN2762	ORGANOCHLORINE PESTICIDE, LIQUID, FLAMMABLE, TOXIC*	3	6.1	305	307
UN2784	ORGANOPHOSPHORUS PESTICIDE, LIQUID, FLAMMABLE, TOXIC*	3	6.1	305	307
UN2787	ORGANOTIN PESTICIDE, LIQUID, FLAMMABLE, TOXIC*	3	6.1	305	307
UN1265	PENTANES	3		305	307
UN1105	PENTANOLS	3		305	307
UN1266	PERFUMERY PRODUCTS	3		305	307
UN3021	PESTICIDE, LIQUID, FLAMMABLE, TOXIC, N.O.S.*	3	6.1	305	307
UN2766	PHENOXY PESTICIDE, LIQUID, FLAMMABLE, TOXIC*	3	6.1	305	307
UN3346	PHENOXYACETIC ACID DERIVATIVE PESTICIDE, LIQUID, FLAMMABLE, TOXIC,* flash point less than 23 degrees centigrade	3	6.1	305	307

UN2768	PHENYL UREA PESTICIDE, LIQUID, FLAMMABLE, TOXIC*	3	6.1	305	307
UN2774	PHTHALIMIDE DERIVATIVE PESTICIDE, LIQUID, FLAMMABLE, TOXIC*	3	6.1	305	307
UN1275	PROPIONALDEHYDE	3		305	307
UN2404	PROPIONITRILE	3	6.1	305	307
UN1815	PROPIONYL CHLORIDE	3	8	305	307
UN1281	PROPYL FORMATES	3		305	307
UN3350	PYRETHROID PESTICIDE, LIQUID FLAMMABLE, TOXIC*, flash point less than 23 degrees centigrade	3	6.1	305	307
UN1282	PYRIDINE	3		305	307
UN1922	PYRROLIDINE	3		305	307
UN1286	ROSIN OIL	3		305	307
UN1287	RUBBER SOLUTION	3		305	307
UN1288	SHALE OIL	3		305	307
UN1289	SODIUM METHYLATE SOLUTION	3	8	305	307
UN2780	SUBSTITUTED NITROPHENOL PESTICIDE, LIQUID, FLAMMABLE, TOXIC*	3	6.1	305	307
UN1999	TARS, LIQUID	3		305	307
UN2056	TETRAHYDROFURAN	3		305	307
UN2412	TETRAHYDROTHIOPHENE	3		305	307
UN2436	THIOACETIC ACID	3		305	307
UN2772	THIOCARBAMATE PESTICIDE, LIQUID, FLAMMABLE, TOXIC*, flash point less than 23 degrees centigrade	3	6.1	305	307
UN2414	THIOPHENE	3		305	307
UN1293	TINCTURES, MEDICINAL	3		305	307
UN1294	TOLUENE	3		305	307
UN2764	TRIAZINE PESTICIDE, LIQUID, FLAMMABLE, TOXIC*	3	6.1	305	307
UN1296	TRIETHYLAMINE	3	8	305	307
UN2616	TRIISOPROPYL BORATE	3		305	307
UN2416	TRIMETHYL BORATE	3		305	307
UN2057	TRIPROPYLENE	3		305	307
UN1300	TURPENTINE SUBSTITUTE	3		305	307
UN2058	VALERALDEHYDE	3		305	307
UN1301	VINYL ACETATE, STABILIZED	3		305	307
UN2838	VINYL BUTYRATE, STABILIZED	3		305	307
UN1304	VINYL ISOBUTYL ETHER, STABILIZED	3		305	307
UN1306	WOOD PRESERVATIVES, LIQUID	3		305	307
UN1307	XYLENES	3		305	307
	PG III				
UN2498	1,2,3,6-TETRAHYDROBENZALDEHYDE	3		305	307
UN2752	1,2-EPOXY-3-ETHOXYPROPANE	3		309	310
UN2325	1,3,5-TRIMETHYLBENZENE	3		309	310
UN2341	1-BROMO-3-METHYLBUTANE	3		309	310
UN3092	1-METHOXY-2-PROPANOL	3		309	310
UN2051	2-DIMETHYLETHANOLAMINE	3		309	310
UN2275	2-ETHYLBUTANOL	3		309	310
UN2276	2-ETHYLHEXYLAMINE	3	8	309	310
UN2560	2-METHYLPENTAN-2-OL	3		309	310

UN2293	4-METHOXY-4-METHYLPENTAN-2-ONE	3		309	310
UN2302	5-METHYLHEXAN-2-ONE	3		309	310
UN2332	ACETALDEHYDE OXIME	3		309	310
UN2621	ACETYL METHYL CARBINOL	3		309	310
UN2607	ACROLEIN DIMER, STABILIZED	3		309	310
UN1133	ADHESIVES containing flammable liquid	3		309	310
UN1133	ADHESIVES containing flammable liquid	3		309	310
UN3065	ALCOHOLIC BEVERAGES	3		309	310
UN1986	ALCOHOLS, FLAMMABLE, TOXIC, N.O.S.*	3	6.1	309	310
UN1986	ALCOHOLS, FLAMMABLE, TOXIC, N.O.S.*	3	6.1	309	310
UN1987	ALCOHOLS, N.O.S.*	3		309	310
UN1988	ALDEHYDES, FLAMMABLE, TOXIC, N.O.S.*	3	6.1	309	310
UN1988	ALDEHYDES, FLAMMABLE, TOXIC, N.O.S.*	3	6.1	309	310
UN1989	ALDEHYDES, N.O.S.*	3		309	310
UN1989	ALDEHYDES, N.O.S.*	3		309	310
UN2219	ALLYL GLYCIDYL ETHER	3		309	310
UN2368	alpha-PINENE	3		309	310
UN2733	AMINES, FLAMMABLE, CORROSIVE, N.O.S.*	3	8	309	310
UN1104	AMYL ACETATES	3		309	310
UN1105	AMYL ALCOHOLS	3		309	310
UN2620	AMYL BUTYRATES	3		309	310
UN1109	AMYL FORMATES	3		309	310
UN1112	AMYL NITRATE	3		309	310
UN1106	AMYLAMINE	3	8	309	310
UN2222	ANISOLE	3		309	310
UN2514	BROMOBENZENE	3		309	310
UN2344	BROMOPROPANES	3		309	310
UN1120	BUTANOLS	3		309	310
UN1123	BUTYL ACETATES	3		309	310
UN2348	BUTYL ACRYLATE, STABILIZED	3		309	310
UN2351	BUTYL NITRITES	3		309	310
UN1914	BUTYL PROPIONATES	3		309	310
UN2709	BUTYLBENZENES	3		309	310
UN2840	BUTYRALDOXIME	3		309	310
UN1130	CAMPHOR OIL	3		309	310
UN1134	CHLOROBENZENE	3		309	310
UN2234	CHLOROBENZOTRIFLUORIDES	3		309	310
UN2238	CHLOROTOLUENES	3		309	310
UN1136	COAL TAR DISTILLATES, FLAMMABLE	3		309	310
UN1139	COATING SOLUTION	3		309	310
UN1139	COATING SOLUTION	3		309	310
UN1915	CYCLOHEXANONE	3		309	310
UN2243	CYCLOHEXYL ACETATE	3		309	310
UN3054	CYCLOHEXYL MERCAPTAN	3		309	310
UN2520	CYCLOOCTADIENES	3		309	310
UN2244	CYCLOPENTANOL	3		309	310
UN2245	CYCLOPENTANONE	3		309	310
UN2046	CYMENES	3		309	310

UN1147	DECAHYDRONAPHTHALENE	3		309	310
UN1148	DIACETONE ALCOHOL	3		309	310
UN1149	DIBUTYLETHERS	3		309	310
UN1152	DICHLOROPENTANES	3		309	310
UN2047	DICHLOROPROPENES	3		309	310
UN2048	DICYCLOPENTADIENE	3		309	310
UN1202	DIESEL FUEL	3		309	310
UN2366	DIETHYL CARBONATE	3		309	310
UN2684	DIETHYLAMINOPROPYLAMINE	3	8	309	310
UN2049	DIETHYLBENZENE	3		309	310
UN1157	DIISOBUTYL KETONE	3		309	310
UN2361	DIISOBUTYLAMINE	3	8	309	310
UN2707	DIMETHYLDIOXANES	3		309	310
UN2841	DI-n-AMYLAMINE	3	6.1	309	310
UN2052	DIPENTENE	3		309	310
UN2710	DIPROPYL KETONE	3		309	310
UN3272	ESTERS, N.O.S.*	3		309	310
UN1170	ETHANOL	3		309	310
UN3271	ETHERS, N.O.S.*	3		309	310
UN2935	ETHYL 2-CHLOROPROPIONATE	3		309	310
UN2271	ETHYL AMYL KETONE	3		309	310
UN1180	ETHYL BUTYRATE	3		309	310
UN1192	ETHYL LACTATE	3		309	310
UN2524	ETHYL ORTHOFORMATE	3		309	310
UN1177	ETHYLBUTYL ACETATE	3		309	310
UN1153	ETHYLENE GLYCOL DIETHYL ETHER	3		309	310
UN1171	ETHYLENE GLYCOL MONOETHYL ETHER	3		309	310
UN1172	ETHYLENE GLYCOL MONOETHYL ETHER ACETATE	3		309	310
UN1188	ETHYLENE GLYCOL MONOMETHYL ETHER	3		309	310
UN1189	ETHYLENE GLYCOL MONOMETHYL ETHER ACETATE	3		309	310
UN1169	EXTRACTS, AROMATIC, LIQUID	3		309	310
UN1197	EXTRACTS, FLAVOURING, LIQUID	3		309	310
UN2924	FLAMMABLE LIQUID, CORROSIVE, N.O.S.*	3	8	309	310
UN2924	FLAMMABLE LIQUID, CORROSIVE, N.O.S.*	3	8	309	310
UN1993	FLAMMABLE LIQUID, N.O.S.*	3		309	310
UN1993	FLAMMABLE LIQUID, N.O.S.*	3		309	310
UN1992	FLAMMABLE LIQUID, TOXIC, N.O.S.*	3	6.1	309	310
UN1992	FLAMMABLE LIQUID, TOXIC, N.O.S.*	3	6.1	309	310
UN1198	FORMALDEHYDE SOLUTION, FLAMMABLE	3	8	309	310
UN1863	FUEL, AVIATION, TURBINE ENGINE	3		309	310
UN1863	FUEL, AVIATION, TURBINE ENGINE	3		309	310
UN2526	FURFURYLAMINE	3	8	309	310
UN1201	FUSEL OIL	3		309	310
UN1207	HEXALDEHYDE	3		309	310
UN2282	HEXANOLS	3		309	310
UN3295	HYDROCARBONS, LIQUID, N.O.S.	3		309	310
UN3295	HYDROCARBONS, LIQUID, N.O.S.	3		309	310
UN2392	IODOPROPANES	3		309	310

UN1212	ISOBUTANOL	3		309	310
UN2527	ISOBUTYL ACRYLATE, STABILIZED	3		309	310
UN2528	ISOBUTYL ISOBUTYRATE	3		309	310
UN2283	ISOBUTYL METHACRYLATE, STABILIZED	3		309	310
UN2394	ISOBUTYL PROPIONATE	3		309	310
UN2529	ISOBUTYRIC ACID	3	8	309	310
UN2478	ISOCYANATES, FLAMMABLE, TOXIC, N.O.S.*	3	6.1	309	310
UN2303	ISOPROPENYLBENZENE	3		309	310
UN2934	ISOPROPYL 2-CHLOROPROPIONATE	3		309	310
UN2405	ISOPROPYL BUTYRATE	3		309	310
UN2947	ISOPROPYL CHLOROACETATE	3		309	310
UN1918	ISOPROPYLBENZENE	3		309	310
UN1223	KEROSENE	3		309	310
UN1224	KETONES, LIQUID, N.O.S.*	3		309	310
UN3248	MEDICINE, LIQUID, FLAMMABLE, TOXIC, N.O.S.	3	6.1	309	310
UN3336	MERCAPTAN MIXTURE, LIQUID, FLAMMABLE, N.O.S.*	3		309	310
UN3336	MERCAPTAN MIXTURE, LIQUID, FLAMMABLE, N.O.S.*	3		309	310
UN3336	MERCAPTANS, LIQUID, FLAMMABLE, N.O.S.*	3		309	310
UN3336	MERCAPTANS, LIQUID, FLAMMABLE, N.O.S.*	3		309	310
UN1229	MESITYL OXIDE	3		309	310
UN2614	METHALLYL ALCOHOL	3		309	310
UN2933	METHYL 2-CHLOROPROPIONATE	3		309	310
UN2053	METHYL ISOBUTYL CARBINOL	3		309	310
UN1233	METHYLAMYL ACETATE	3		309	310
UN2617	METHYLCYCLOHEXANOLS	3		309	310
UN2297	METHYLCYCLOHEXANONE	3		309	310
UN2265	N,N-DIMETHYLFORMAMIDE	3		309	310
UN1110	n-AMYL METHYL KETONE	3		309	310
UN2227	n-BUTYL METHACRYLATE, STABILIZED	3		309	310
UN2247	n-DECANE	3		309	310
UN3056	n-HEPTALDEHYDE	3		309	310
UN2059	NITROCELLULOSE SOLUTION, FLAMMABLE with not more than 12.6% nitrogen, by dry mass, and not more than 55% nitrocellulose	3		309	310
UN2059	NITROCELLULOSE SOLUTION, FLAMMABLE with not more than 12.6% nitrogen, by dry mass, and not more than 55% nitrocellulose	3		309	310
UN2842	NITROETHANE	3		309	310
UN2608	NITROPROPANES	3		309	310
UN1920	NONANES	3		309	310
UN1274	n-PROPANOL	3		309	310
UN2364	n-PROPYLBENZENE	3		309	310
UN1191	OCTYL ALDEHYDES	3		309	310
UN1263	PAINT (including paint, lacquer, enamel, stain, shellac, varnish, polish, liquid filler and liquid lacquer base)	3		309	310
UN1263	PAINT RELATED MATERIAL (including paint thinning or reducing compound)	3		309	310
UN1264	PARALDEHYDE	3		309	310
UN2286	PENTAMETHYLHEPTANE	3		309	310

UN2310	PENTAN-2,4-DIONE	3	6.1	309	310
UN1105	PENTANOLS	3		309	310
UN1266	PERFUMERY PRODUCTS	3		309	310
UN1267	PETROLEUM CRUDE OIL	3		309	310
UN1267	PETROLEUM CRUDE OIL	3		309	310
UN1268	PETROLEUM DISTILLATES, N.O.S.	3		309	310
UN1268	PETROLEUM PRODUCTS N.O.S.	3		309	310
UN2313	PICOLINES	3		309	310
UN1272	PINE OIL	3		309	310
UN2733	POLYAMINES, FLAMMABLE, CORROSIVE, N.O.S.*	3	8	309	310
UN1210	PRINTING INK, flammable	3		309	310
UN1210	PRINTING INK, flammable	3		309	310
UN2850	PROPYLENE TETRAMER	3		309	310
UN1866	RESIN SOLUTION, flammable	3		309	310
UN1866	RESIN SOLUTION, flammable	3		309	310
UN1286	ROSIN OIL	3		309	310
UN1287	RUBBER SOLUTION	3		309	310
UN1288	SHALE OIL	3		309	310
UN1289	SODIUM METHYLATE SOLUTION	3	8	309	310
UN2055	STYRENE MONOMER, STABILIZED	3		309	310
UN1999	TARS, LIQUID	3		309	310
UN2319	TERPENE HYDROCARBONS, N.O.S.	3		309	310
UN2541	TERPINOLENE	3		309	310
UN1292	TETRAETHYL SILICATE	3		309	310
UN2943	TETRAHYDROFURFURYLAMINE	3		309	310
UN2413	TETRAPROPYL ORTHOTITANATE	3		309	310
UN1293	TINCTURES, MEDICINAL	3		309	310
UN2610	TRIALLYLAMINE	3	8	309	310
UN2323	TRIETHYL PHOSPHITE	3		309	310
UN2324	TRIISOBUTYLENE	3		309	310
UN2906	TRIISOCYANATOISOCYANURATE OF ISOPHORONEDIISOCYANATE, SOLUTION	3		309	310
UN2616	TRIISOPROPYL BORATE	3		309	310
UN2329	TRIMETHYL PHOSPHITE	3		309	310
UN1297	TRIMETHYLAMINE, AQUEOUS SOLUTION	3	8	309	310
UN1297	TRIMETHYLAMINE, AQUEOUS SOLUTION	3	8	309	310
UN2260	TRIPROPYLAMINE	3	8	309	310
UN2057	TRIPROPYLENE	3		309	310
UN1299	TURPENTINE	3		309	310
UN1300	TURPENTINE SUBSTITUTE	3		309	310
UN2330	UNDECANE	3		309	310
UN2618	VINYLTOLUENES, STABILIZED	3		309	310
UN1306	WOOD PRESERVATIVES, LIQUID	3		309	310
UN1307	XYLENES	3		309	310
UN1308	ZIRCONIUM SUSPENDED IN A FLAMMABLE LIQUID	3		309	310
UN1308	ZIRCONIUM SUSPENDED IN A FLAMMABLE LIQUID	3		309	310

PI 3X2
Combined portions of PI 304, 306, and 308

3X2 **PACKING INSTRUCTION 3X2** **3X2**

The general packing requirements of Part 4, Chapter 1 must be met.

COMBINATION PACKAGINGS:

INNER:

The following inner packagings are authorized for the indicated volumes of liquid for passenger or cargo aircraft . When a packaging is not permitted the word "prohibited" is indicated.

	Passenger Aircraft			***Cargo Aircraft***		
	PG I	*PG II*	*PG III*	*PG I*	*PG II*	*PG III*
Glass or earthenware (IP.1)	0.5 L	1 L	1 L	1 L	2.5 L	2.5 L
Plastic (IP.2)	Prohibited	1 L	1 L	Prohibited	2.5 L	2.5 L
Metal (IP.3, IP.3A)	1 L	1 L	1 L	2.5 L	2.5 L	2.5 L

OUTER:

Boxes	***Drums***	***Jerricans***
aluminium (4B) fibreboard (4G) plywood (4D) reconstituted wood (4F) expanded plastic (4H1) solid plastic (4H2) steel (4A) wooden (4C1, 4C2)	aluminium (1B2) fibre (1G) plywood (1D) steel (1A2) plastic (1H2) other metal (1N2)	aluminium (3B2) steel (3A2) plastic (3H2)

SINGLE PACKAGINGS:

Passenger Aircraft			***Cargo Aircraft***		
PG I	PG II	PG III	PG I	PG II	PG III
FORBIDDEN	FORBIDDEN	**Drums:** 1A1, 1A2, 1B1, 1B2, 1H1, 1H2, 1N1, and 1N2	**Drums:** 1A1, 1B1, and 1N1	**Drums:** 1A1, 1B1, 1H1, 1N1	**Drums:** 1A1, 1A2, 1B1, 1B2, 1H1, 1H2, , 1N1, and 1N2
		Jerricans: 3A1, 3A2, 3B1, 3B2, 3H1 and 3H2	**Jerricans:** 3A1 and 3B1	**Jerricans:** 3A1 3B1,and 3H1	**Jerricans:** 3A1, 3A2, 3B1, 3B2, 3H1 and 3H2
		Composites (plastic): 6HA1, 6HB1, 6HG1, 6HH1 and 6HD1.	**Composites (plastic):** 6HA1, 6HB1, 6HG1, 6HH1 and 6HD1.	**Composites (plastic):** 6HA1, 6HB1, 6HG1, 6HH1, and 6HD1.	**Composites (plastic):** 6HA1, 6HB1, 6HG1, 6HH1, and 6HD1.
		Cylinders: As permitted in Packing Instruction 200	**Cylinders:** As permitted in Packing Instruction 200	**Cylinders:** As permitted in Packing Instruction 200	**Cylinders:** As permitted in Packing Instruction 200

Additional Requirements

Plastic or glass inner packagings must be packed in tightly closed metal or rigid plastic receptacles before packing in outer packaging. Inner packaging must be packed with absorbent material in sufficient quantity to absorb the entire liquid content.

Notes:
This instruction consolidates parts of PI 304/306/308.
- Removed restrictions on inner packaging type based on material compatibility.
- Removed inner packaging IP8, now included in IP1 definition.
- Deleted PPR 3 - compatibility issue more appropriately addressed in Part 4, Chapter 1.
- Deleted PPR 5 -compatibility issue more appropriately addressed in Part 4, Chapter 1.
- Deleted PPR 6 - glass ampoules are covered under the combined PPR 2 and 13.
- Deleted PPR 8 - applies only to UN2983 and UN1302. The working group is requested to consider how this requirement should be addressed for these two UN numbers.
- Added outer packagings to harmonize with UN Model Regulations: Boxes, Expanded Plastic (4H1), Drums Other Metal (1N2), Drums Plastic (1H2), Jerricans Plastic (3H2).
- Added specification codes for composite plastic single packagings.
- Changed some inner quantities limits based on a rationalized approach of comparison with similar materials:

UN #	PG	Inner packaging	Change in quantity	Amount	Passenger (P) or CAO
UN1154	II	IP2 IP3	reduce	5L to 2.5L	CAO
UN1184	II	IP2 IP3	reduce	5L to 2.5L 10L to 2.5L	CAO
UN1277	II	IP3	reduce	5L to 2.5L	CAO
UN1279	II	IP2 IP3 IP2 IP3	reduce reduce	5L to 1L 5L to 1L 5L to 2.5L 10L to 2.5L	P P CAO CAO
UN1280	I	IP3	increase	1L to 2.5L	CAO
UN2486	II	IP2	increase	1L to 2.5L	CAO

The UN numbers and proper shipping names assigned to PI 3X2 are:

UN#	ICAO PSN	CLASS	PG	SUB-R	PASS PI	CARGO PI
UN1167	DIVINYL ETHER, STABILIZED	3	I		306	308
UN1302	VINYL ETHYL ETHER, STABILIZED	3	I		306	304
UN1280	PROPYLENE OXIDE	3	I		306	304
UN2371	ISOPENTENES	3	I		306	304
UN1279	1,2-DICHLOROPROPANE	3	II		306	308
UN2347	BUTYL MERCAPTAN	3	II		306	308
UN2402	PROPANETHIOLS	3	II		306	308
UN1111	AMYL MERCAPTAN	3	II		306	308
UN1184	ETHYLENE DICHLORIDE	3	II	6.1	306	308
UN2360	DIALLYL ETHER	3	II	6.1	306	308
UN2486	ISOBUTYL ISOCYANATE	3	II	6.1	306	308
UN1154	DIETHYLAMINE	3	II	8	306	308
UN1277	PROPYLAMINE	3	II	8	306	308
UN2493	HEXAMETHYLENEIMINE	3	II	8	306	308
UN1717	ACETYL CHLORIDE	3	II	8	306	308
UN1228	MERCAPTANS, LIQUID, FLAMMABLE, TOXIC, N.O.S.*	3	III	6.1	306	308

PI 3X3
Combined portions of PI 304, 306, and 308

3X3	PACKING INSTRUCTION 3X3	3X3

The general packing requirements of Part 4, Chapter 1 must be met. Combination packagings with inner plastic packagings and single outer plastic packagings are not permitted for PG I liquids.

COMBINATION PACKAGINGS:

INNER:

The following inner packagings are authorized for the indicated volumes of liquid for passenger or cargo aircraft . When a packaging is not permitted the word "prohibited" is indicated.

	Passenger		***Cargo***	
	PG I	*PG II*	*PG I*	*PG II*
Glass or earthenware (IP.1)	0.5 L	0.5 L	0.5 L	1.0 L
Plastic (IP.2)	Prohibited	0.5 L	Prohibited	1.0 L
Metal (IP.3)	0.5 L	0.5 L	0.5 L	1.0 L

OUTER:

Boxes	***Drums***	***Jerricans***
aluminium (4B) fibreboard (4G) plywood (4D) reconstituted wood (4F) expanded plastic (4H1) solid plastic (4H2) steel (4A) wooden (4C1, 4C2)	aluminium (1B2) fibre (1G) plywood (1D) steel (1A2) plastic (1H2) other metal (1N2)	aluminium (3B2) steel (3A2) plastic (3H2)

SINGLE PACKAGINGS:

Passenger Aircraft	*Cargo Aircraft*	
	PG I	PG II
FORBIDDEN	**Drums:** 1A1 and 1N1	**Drums:** 1A1, 1H1, 1N1
	Jerricans: 3A1	**Jerricans:** 3A1 and 3H1
	Composites (plastic): 6HA1	**Composites (plastic):** 6HA1, 6HG1, 6HH1 and 6HD1
	Cylinders: As permitted in Packing Instruction 200	**Cylinders:** As permitted in Packing Instruction 200

Additional Requirements

Plastic or glass inner packagings must be packed in tightly closed metal or rigid plastic receptacles before packing in outer packaging. Inner packaging must be packed with absorbent material in sufficient quantity to absorb the contents.

Aluminium packagings are not permitted.

Particular Packing Requirements:

3X3-1 For UN 1723, metal packagings are not permitted.
3X3-2 For UN 1921, UN 1204 , UN 1298, UN 2356 and UN 2456 plastic packagings are not permitted.

Notes:

This instruction consolidates parts of PI 304/306/308.

- Inner package quantity limits were not changed.
- Removed inner packaging IP8, now included in IP1 definition.
- Added outer packagings to harmonize with UN Model Regulations: Boxes, Expanded Plastic (4H1), Drums Other Metal (1N2), Drums Plastic (1H2), Jerricans Plastic (3H2).
- Added specification codes for composite plastic single packagings.
- These materials were separated into a separate instruction due to the significant differences in inner quantity limits from those materials assigned to PI 3X2. However, further review could lead to additional consolidation through rationalizing the limits based on similar hazards.
-Removed aluminium packagings based on compatibility PPRs.

The UN numbers and proper shipping names assigned to PI 3X3 are:

UN#	ICAO PSN	CLASS	PG	SUB-R	PASS PI	CARGO PI
UN1921	PROPYLENEIMINE, INHIBITED	3	I	6.1	306	304
UN1196	ETHYLTRICHLOROSILANE	3	II	8	306	304
UN1204	NITROGLYCERIN SOLUTION IN ALCOHOL	3	II		306	308
UN1298	TRIMETHYLCHLOROSILANE	3	II	8	306	304
UN1723	ALLYL IODIDE	3	II	8	306	304
UN2356	2-CHLOROPROPANE	3	I		306	304
UN2456	2-CHLOROPROPENE	3	I		306	304

PI 3X4
Revised PI 303

3X4	PACKING INSTRUCTION 3X4	3X4

The general packing requirements of Part 4, Chapter 1 must be met.

COMBINATION PACKAGINGS:

INNER:

The following inner packagings are authorized for the indicated quantities of liquid for cargo aircraft only unless otherwise indicated. When a packaging is not permitted the word "prohibited" is indicated.

Cargo Aircraft Only

Glass or Earthenware (IP1)	*Plastic (IP2)*	*Metal (IP3, IP3A)*
1 L	Prohibited	5 L

OUTER:

Boxes	*Drums*	*Jerricans*
aluminium (4B) fibreboard (4G) plywood (4D) reconstituted wood (4F) expanded plastic (4H1) solid plastic (4H2) steel (4A) wooden (4C1, 4C2)	aluminium (1B2) fibre (1G) plywood (1D) steel (1A2) plastic (1H2) other metal (1N2)	aluminium (3B2) steel (3A2) plastic (3H2)

SINGLE PACKAGINGS:

Cargo Aircraft Only

Drums:	**Jerricans:**	**Composites (plastic):**	**Cylinders:**
1A1, 1B1, and 1N1	3A1	6HA1, 6HB1, 6HD1	As permitted in Packing Instruction 200

Additional Requirement:

Glass or earthenware inner packagings must be packed with absorbent material in tightly closed metal or rigid plastic receptacles before packing in outer packaging in sufficient quantity to absorb the entire liquid content.

Notes: This PI is consistent with PI 303/304 and is cargo aircraft only.
Plastic composites would no longer be permitted for most of these substances which is consistent with other PG I flammable liquids and results in a more rationalized safety approach.
The absorbent material requirements would be new for all of the liquids previously assigned to P303 but this would provide a more rationalized safety approach.
For 1278 Propyl chloride the glass inner packaging would be reduced from 2.5 L to 1.0 L.

The UN numbers and proper shipping names assigned to PI 3X4 are:

PG I

UN1108	1-Pentene	3		FORBIDDEN	303
UN2459	2-METHYL-1-BUTENE	3		FORBIDDEN	303
UN2561	3-METHYL-1-BUTENE	3		FORBIDDEN	303
UN1093	ACRYLONITRILE, STABILIZED	3	6.1	FORBIDDEN	303
UN1133	ADHESIVES containing flammable liquid	3		FORBIDDEN	303
UN1986	ALCOHOLS, FLAMMABLE, TOXIC, N.O.S.*	3	6.1	FORBIDDEN	303
UN1988	ALDEHYDES, FLAMMABLE, TOXIC, N.O.S.*	3	6.1	FORBIDDEN	303
UN1989	ALDEHYDES, N.O.S.*	3		FORBIDDEN	303
UN1099	ALLYL BROMIDE	3	6.1	FORBIDDEN	303
UN1100	ALLYL CHLORIDE	3	6.1	FORBIDDEN	303
UN2336	ALLYL FORMATE	3	6.1	FORBIDDEN	303
UN2733	AMINES, FLAMMABLE, CORROSIVE, N.O.S.*	3	8	FORBIDDEN	303
UN2760	ARSENICAL PESTICIDE, LIQUID, FLAMMABLE, TOXIC*	3	6.1	FORBIDDEN	303

UN2770	BENZOIC DERIVATIVE PESTICIDE, LIQUID, FLAMMABLE, TOXIC*	3	6.1	FORBIDDEN	303
UN2782	BIPYRIDILIUM PESTICIDE, LIQUID, FLAMMABLE, TOXIC* flash point less than 23 degrees centigrade	3	6.1	FORBIDDEN	303
UN2758	CARBAMATE PESTICIDE, LIQUID, FLAMMABLE, TOXIC*	3	6.1	FORBIDDEN	303
UN1991	CHLOROPRENE, STABILIZED	3	6.1	FORBIDDEN	303
UN1139	COATING SOLUTION	3		FORBIDDEN	303
UN2776	COPPER BASED PESTICIDE, LIQUID, FLAMMABLE, TOXIC,*	3	6.1	FORBIDDEN	303
UN3024	COUMARIN DERIVATIVE PESTICIDE, LIQUID, FLAMMABLE, TOXIC*	3	6.1	FORBIDDEN	303
UN1144	CROTONYLENE	3		FORBIDDEN	303
UN1155	DIETHYL ETHER	3		FORBIDDEN	303
UN2772	DITHIOCARBAMATE, PESTICIDE, LIQUID, FLAMMABLE, TOXIC*	3	6.1	FORBIDDEN	303
UN2924	FLAMMABLE LIQUID, CORROSIVE, N.O.S.*	3	8	FORBIDDEN	303
UN1993	FLAMMABLE LIQUID, N.O.S.*	3		FORBIDDEN	303
UN3286	FLAMMABLE LIQUID, TOXIC, CORROSIVE, N.O.S.*	3	6.1, 8	FORBIDDEN	303
UN1992	FLAMMABLE LIQUID, TOXIC, N.O.S.*	3	6.1	FORBIDDEN	303
UN1863	FUEL, AVIATION, TURBINE ENGINE	3		FORBIDDEN	303
UN2389	FURAN	3		FORBIDDEN	303
UN3295	HYDROCARBONS, LIQUID, N.O.S.	3		FORBIDDEN	303
UN1218	ISOPRENE, STABILIZED	3		FORBIDDEN	303
UN1221	ISOPROPYLAMINE	3	8	FORBIDDEN	303
	PGII				
UN1278	PROPYL CHLORIDE	3		FORBIDDEN	308

PI 3X5

3X5	PACKING INSTRUCTION 3X5	3X5

The general packing requirements of Part 4, Chapter 1 must be met.

COMBINATION PACKAGINGS:

INNER:

The following inner packagings are authorized for the indicated quantities of liquid for cargo aircraft only unless otherwise indicated. When a packaging is not permitted the word "prohibited" is indicated.

Cargo Aircraft Only

Glass or Earthenware (IP1)	*Plastic (IP2)*	*Metal (IP3, IP3A)*
0.5 L	Prohibited	2.5 L

OUTER:

Boxes	*Drums*	*Jerricans*
aluminium (4B) fibreboard (4G) plywood (4D) reconstituted wood (4F) expanded plastic (4H1) solid plastic (4H2) steel (4A) wooden (4C1, 4C2)	aluminium (1B2) fibre (1G) plywood (1D) steel (1A2) plastic (1H2) other metal (1N2)	aluminium (3B2) steel (3A2) plastic (3H2)

SINGLE PACKAGINGS:

Drums:	**Cylinders:**
1A1, 1B1, and 1N1	As permitted in Packing Instruction 200

Additional Requirement:

Glass or earthenware inner packagings must be packed with absorbent material in tightly closed metal or rigid plastic receptacles before packing in outer packaging in sufficient quantity to absorb the entire liquid content.

Notes: This PI is consists of several specials from 304/308 and is cargo aircraft only.
Some quantities would change as follows:
For UN 1250 plastic inner packagings would no longer be allowed. The inner packaging quantity for metal would be increased to 2.5 L.
The glass inner packaging quantity would decrease from 1.0 L to 0.5L for UN 2481, UN 2483, UN 2749 and UN 2983.
For UN 2363, Ethyl Mercaptan plastic packagings would no longer be permitted and the metal inner packaging quantity would increase from 1.0 L to 2.5L.
For UN 1305, Vinyltrichlorosilane, stabilized the inner glass packaging quantity would be reduced to 0.5 L from 1.0 L and plastic inner packagings would no longer be allowed.

The UN numbers and proper shipping names assigned to 3X5 are:

PG I

UN1089	ACETALDEHYDE	3	I			FORBIDDEN	304
UN1250	METHYLTRICHLOROSILANE	3	I	8		FORBIDDEN	304
UN2749	TETRAMETHYLSILANE				3	FORBIDDEN	304
UN2481	ETHYL ISOCYANATE				3 6.1	FORBIDDEN	304
UN2483	ISOPROPYL ISOCYANATE				3 6.1	FORBIDDEN	304
UN2983	ETHYLENE OXIDE AND PROPYLENE OXIDE MIXTURE, with not more than 30% ethylene oxide				3 6.1	FORBIDDEN	304
UN2363	ETHYL MERCAPTAN				3	FORBIDDEN	308
UN1305	VINYLTRICHLOROSILANE, STABILIZED				3 8	FORBIDDEN	304

PI Y3XX
Combined Y305, Y306, and Y309

Y3XX	PACKING INSTRUCTION Y3XX	Y3XX

The requirements of Part 3, Chapter 4 must be met.

Single packagings are not permitted.

COMBINATION PACKAGINGS:

INNER:

The following inner packagings are authorized for the indicated volumes of liquid for passenger or cargo aircraft. When a packaging is not permitted the word "prohibited" is indicated.

		PG I	PG II	PG III	
	Glass or earthenware (IP.1)	Prohibited	0.5 L	2.5 L	
	Plastic (IP.2) 2	Prohibited	0.5 L	5 L	
	Metal (IP.3, IP.3A)	Prohibited	0.5 L	5 L	

OUTER:

	Boxes	Drums	Jerricans	
	aluminium fibreboard plywood reconstituted wood expanded plastic solid plastic steel wooden	aluminium fibre plywood steel plastic other metal	aluminium steel plastic	

PARTICULAR PACKAGING REQUIREMENTS:

PPRY3-1 For UN 1111, UN 1228,UN 2347, UN 2402, UN 2478, UN 2486, or any substance containing a Class 8 subsidiary risk, glass or earthenware inner packagings must be packed with absorbent material in tightly closed metal or rigid plastic receptacles before packing in outer packagings.

PPRY3-2 For UN 1111,UN 1228, UN 1717, UN 1723, UN 2347, and UN 2402, plastic inner packagings must be packed in tightly closed metal or rigid plastic receptacles before packing in outer packagings.

PPRY3-2 For UN 1184 aluminium packagings are not permitted.

Notes: This instruction consolidates PI Y305/Y306/Y309. This applies to all liquids that were permitted in Y Pis (list to be provided in next draft)

- Inner package quantity limits were not changed.
- Removed restrictions on inner packaging type based on material compatibility.
- Removed inner packaging IP8, now included in IP1 definition.
- Deleted PPR 5 - compatibility issue more appropriately addressed in Part 4, Chapter 1.
- Deleted PPR 6 - glass ampoules are covered under the combined PPR 2 and 13. These PPRs are maintained.
- Added outer packagings to harmonize with UN Model Regulations: Boxes, Expanded Plastic, Drums Other Metal, Drums Plastic, Jerricans Plastic.
- Particular packaging requirement PPY31applies to 53 UN numbers.

Class 4

CLASS 4 PACKING INSTRUCTIONS

Note following each revised Packing Instruction is a list of UN numbers that have been allocated to it. It should be remembered that the same UN number can appear in more than one Packing Instruction as they can be PGI, II or II. In addition a few substances can be liquid or solid with the same UN number (this is currently being addressed in Geneva).

Retained packing instructions:
400, Y401, 401, Y401, 404, Y404, 407, 433 and 435

Revised packing instructions
4X1 4.1 and 4.3 PGI

4X2 4.1,4.2 and 4.3 PGII and III

4X5 4.1 PGII (Nitrocellulose entries)

4X7 4.1 PGIII

4X8 4.2 PGII N.O.S entries with subsidiary risks and 4.3 PG I

4X15 4.3 PGII

4X16 4.3 PGII

4X17 4.1 Self reactive substances

Y4X1 Class 4 limited quantities

Packing Instructions unchanged

400	**PACKING INSTRUCTION 400**	**400**

Films. nitrocellulose base must be packed in accordance with the general packing requirements of Part 4, Chapter 1 and as follows:

a) in steel drums (1A2), aluminium drums (1B2), aluminium jerricans (3B2), steel jerricans (3A2), aluminium (4B), steel (4A), wooden (4C1, 4C2), plywood (4D) or reconstituted wood (4F) boxes or plywood drums (ID) of Packing Group II with each reel in a tightly closed metal can or strong cardboard or fibreboard inner packaging with cover held in place by adhesive tape or paper; or

b) in fibreboard (4G) or solid plastic (4H2) boxes or fibre drums (1 G) of Packing Group II with a single tightly closed metal can or strong cardboard or fibreboard inner packaging with cover held in place by adhesive tape or paper; authorized only for not over 600 m of film.

Y400	**PACKING INSTRUCTION Y400**	**Y400**

The requirements of Part 3, Chapter 4 mus be met.

Single packagings are not permitted.

COMBINATION PACKAGINGS:

Films. nitrocellulose base must be packed as follows:

a) in steel or aluminium drums, aluminium or steel jerricans, aluminium, steel, wooden, plywood or reconstituted wood boxes or plywood drums with each reel in a tightly closed metal can or strong cardboard or fibreboard inner packaging with cover held in place by adhesive tape or paper, up to a maximum net quantity of 1 kg of film in each inner packaging;

or

b) in fibreboard or solid plastic boxes or fibre drums with a single tightly closed metal can or strong cardboard or fibreboard inner packaging with cover held in place by adhesive tape or paper; authorized only for not over 600 m or 1

kg (whichever is the more restrictive) of film in one outer packaging.

401 PACKING INSTRUCTION 401 401

The general packing requirements of Part 4, Chapter 1 must be met.
Nitrocellulose membrane filters must be packed as follows:
a) in fibreboard (4G) boxes of Packing Group II; or
b) in other packagings of Packing Group II, provided that explosion is not possible by reason of increased internal pressure.

Y401 PACKING INSTRUCTION Y401 Y401

The requirements of Part 3, Chapter 4 must be met.
Single packagings are not permitted.

Nitrocellulose membrane filters must be packed in tightly closed metal, plastics, or strong cardboard or fibreboard inner packagings. Inner packagings must be securely packed in aluminium or steel drums, aluminium or steel jerricans, aluminium, steel, wooden, plywood, reconstituted wood, fibreboard or plastics boxes, plywood or fibre drums.

404 PACKING INSTRUCTION 404 404

Matches, safety (book, card or strike on box) must be of a type that will not ignite spontaneously under normal conditions of air transport and can be readily ignited by friction only by striking on the manufacturer's box, book or card. Matches must be packed in accordance with the general packing requirements of Part 4, Chapter 1 and be tightly packed to prevent movement within the package and ignition by rubbing against an adjoining box, book or card; they must be securely wrapped in paper or foil, or packed in tightly closed inner packagings. Not more than 50 books of matches may be packed in one inner packaging. Inner packagings must be securely packed in steel drums (1A2), aluminium drums4 1B2), steel jerricans (3A2), aluminium jerricans (3B2), steel (4A), aluminium (4B), wooden (4C1, 4C2), plywood (4D), reconstituted wood (4F), fibreboard (4G) or solid plastic (4H2) boxes, plywood (ID) or fibre (1 G) drums of Packing Group II. Alternatively, book safety matches only, up to a maximum of 50 books, may be packed in a strong fibreboard carton, which is made of straw-board, covered with kraft paper, having a securely glued inside lining consisting of aluminium foil at least 0.01 mm thick, the carton to have a full depth lid with all joints secured with gummed paper tape; no additional outer packaging is required.

Y404 PACKING INSTRUCTION Y404 Y404

The requirements of Part 3, Chapter 4 must be met.

Single packagings are not permitted.

COMBINATION PACKAGINGS:

Matches, safety (book, card or strike on box) must be of a type that will not ignite spontaneously under normal conditions of air transport and can be readily ignited by friction only by striking on the manufacturer's box, book or card. Matches must be tightly packed to prevent movement within the package and ignition by rubbing against an adjoining box, book or card; they must be securely wrapped in paper or foil, or packed in tightly closed inner packagings. Not more than 50 books of matches may be packed in one inner packaging. Inner packagings must be securely packed in aluminium or steel drums, aluminium or steel jerricans, aluminium, steel, wooden, plywood, reconstituted wood, fibreboard or plastic boxes, plywood or fibre drums. Alternatively, book safety matches only, up to a maximum of 50 books, may be packed in a strong fibreboard carton, which is made of straw-board, covered with kraft paper, having a securely glued inside lining consisting of aluminium foil at least 0.01 mm thick, the carton to have a full depth lid with all joints secured with gummed paper tape; no additional outer packaging is required.

407 PACKING INSTRUCTION407 407

The general packing requirements of Part 4, Chapter 1 must be met.

433 PACKING INSTRUCTION 433 433

Cells must be packed in accordance with the general packing requirements of Part 4, Chapter 1 and be in steel drums (1A2), aluminium drums (1B2), plywood drums (1D), fibre drums (1G), plastic drums (lH2), aluminium jerricans (3B2), steel boxes (4A), aluminium boxes (4B), wooden boxes (4C 1, 4C2), plywood boxes (4D), reconstituted wood boxes (4F), fibreboard boxes (4G) or solid plastic boxes (4H2). Packagings must meet Packing Group 11 requirements. Sufficient cushioning material must be provided to prevent contact between cells, and between cells and the internal surfaces of the outer packagings, and to ensure that no dangerous movement of the cells within the outer packaging occurs in transport.

Batteries may be offered for transport and transported unpacked, or in protective enclosures such as fully enclosed or wooden slatted crates that are not subject to the requirements of Part 6 of these Instructions.

435	**PACKING INSTRUCTION 435**	**435**
As specified by the national authority		

Revised packing instructions

4X1 PACKING INSTRUCTION 4X1

The general requirements of Part 4 Chapter 1 must be met.

COMBINATION PACKAGINGS

The following inner packagings are authorized for the indicated mass of solid for passenger and cargo aircraft. When a packaging is not permitted the word "prohibited" is indicated.

	Passenger Aircraft	***Cargo Aircraft***	
	PGI	*PGI*	***AR 1, 2, and 3***
Glass or earthenware (IP.1)	0.5kg	1kg	***AR 1, 2, 3 and 4***
Plastics (IP.2)	0.5kg	1kg	***AR 1, 2, 3 and 4***
Metal (IP.3)	Prohibited	1kg	***AR 1, 2, and 3***

The following outer packagings are permitted for all inner packagings permitted above

Boxes	***Drums***	***Jerricans***
aluminium (4B) fibreboard (4G) plywood (4D) reconstituted wood (4F) expanded plastics (4H1) solid plastics (4H2) steel (4A) wooden (4C1, 4C2)	aluminium (IB2) fibre (1G) plywood (1D) steel (1A2) plastics (1H2) other metal (1N2)	Aluminium (3B2) steel (3A2) plastics (3H2)

SINGLE PACKAGINGS

The following packagings are permitted

Passenger Aircraft	***Cargo Aircraft***	
PGI	*PGI*	
FORBIDDEN	**Boxes:** 4A, 4B, 4C1, 4C2, 4D, 4F, 4G and 4H2	***AR1, 2 and 3***
	Drums: lAl, 1A2 1B1, 1B2, 1D, 1G, 1H1, 1H2, 1N1 and 1N2	***AR1 ,2 and 3***
	Jerricans: 3A1, 3A2, 3B1, 3B2, 3H1 and 3H2	***AR1, 2 and 3***
	Composites (plastic): 6HA1, 6HB1 6HG1, 6HH1,6HD1, 6H2, 6HB2, 6HC, 6HD2, 6HG2, and 6HH2.	***AR1, 2 and 3***

Additional Requirements (*AR*):

1. Packagings shall be designed and constructed to prevent the loss of water or alcohol content or the content of the phlegmatizer.
2. Packagings shall be so constructed and closed so as to avoid an explosive over pressure or pressure build-up of more than 300 kPa (3 bar)
3 The type of packaging and maximum permitted quantity per packaging are limited by the provisions of Part 2, 1.5.2
4. Plastic or glass inner packagings must be packed in tightly closed metal or rigid plastic receptacles before packing in outer packagings. Inner packagings must be packed with absorbent material in sufficient quantity to absorb the contents.

Particular Packing requirements

PP4-1 For UN Nos. 1310, 1320, 1321, 1322, 1344, 1348, 1349, 1517, 3317 and packaging shall be lead free.
PP4-2 For UN 1310, 1410 and 1419 glass inner packagings are not permitted
PP4-3 For UN1310, 1354, 1355, 1356 and 1571 inner packagings are limited to 0.5Kg
PP4-4 For UN 2852 inner packagings of glass only are limited to 0.25Kg
~~**PP4-5** For UN 1360, 1381, 1392, 1419, 1420, 1422, 1423, 1428 and 1870 metal inner packagings must not exceed 2.5kg~~ Not required limit is 1kg
PP4-5 For UN 1420, 1422, 1423, 1428, and 2257 plastics packagings (inners or singles) are not permitted
PP4-6 For UN 1389, 1407, 1415, 1420, 1422, 1423, 1428, and 2257, if the substance is a dispersion in organic liquid, the organic liquid must have a flashpoint above 50°C and single packagings shall not be used.

Notes on PI 4X1:

- This packing instruction covers 4.1 PGI and some 4.3 PGI.

The UN numbers and proper shipping names assigned to 4X1 are:

UN#	ICAO PSN	PG	CLASS	SUB	PASS PI	CARGO PI
UN3317	2-AMINO-4, 6-DINITROPHENOL, WETTED with not less than 20% water by mass	I	4.1		416	412
UN1392	ALKALINE EARTH METAL AMALGAM	I	4.3		FORBIDDEN	412
UN2463	ALUMINIUM HYDRIDE	I	4.3		FORBIDDEN	412
UN1397	ALUMINIUM PHOSPHIDE	I	4.3	6.1	FORBIDDEN	412
UN1310	AMMONIUM PICRATE, WETTED with not less than 10% water, by mass	I	4.1		416	416
UN1571	BARIUM AZIDE, WETTED with not less than 50% water by mass	I	4.1	6.1	FORBIDDEN	416
UN1407	CAESIUM	I	4.3		FORBIDDEN	412
UN1402	CALCIUM CARBIDE	I	4.3		FORBIDDEN	412
UN1404	CALCIUM HYDRIDE	I	4.3		FORBIDDEN	412
UN1360	CALCIUM PHOSPHIDE	I	4.3	6.1	FORBIDDEN	412
UN1320	DINITROPHENOL, WETTED, with NOT less than 15% water, by mass	I	4.1	6.1	416	412
UN1321	DINITROPHENOLATES, WETTED, with not less than 15% water, by mass	I	4.1	6.1	416	412
UN1322	DINITRORESORCINOL, WETTED, with not less than 15% water, by mass	I	4.1		416	412
UN2852	DIPICRYL SULPHIDE WETTED, with not less than 10% water, by mass	I	4.1		FORBIDDEN	416
UN1415	LITHIUM	I	4.3		FORBIDDEN	412
UN1410	LITHIUM ALUMINIUM HYDRIDE	I	4.3		FORBIDDEN	412
UN1413	LITHIUM BOROHYDRIDE	I	4.3		FORBIDDEN	412
UN1414	LITHIUM HYDRIDE	I	4.3		FORBIDDEN	412
UN1419	MAGNESIUM ALUMINIUM PHOSPHIDE	I	4.3	6.1	FORBIDDEN	412
UN2010	MAGNESIUM HYDRIDE	I	4.3		FORBIDDEN	412
UN2011	MAGNESIUM PHOSPHIDE	I	4.3	6.1	FORBIDDEN	412
UN1409	METAL HYDRIDES, WATER- REACTIVE, N.O.S.*	I	4.3		FORBIDDEN	412
UN3208	METALLIC SUBSTANCE, WATER-REACTIVE, N.O.S.*	I	4.3		FORBIDDEN	412

UN#	ICAO PSN	PG	CLASS	SUB	PASS PI	CARGO PI
UN3209	METALLIC SUBSTANCE, WATER-REACTIVE, SELF-HEATING, N.O.S.*	I	4.3	4.2	FORBIDDEN	412
UN1336	NITROGUANIDINE, WETTED with not less than 20% water, by mass	I	4.1		416	412
UN1337	NITROSTARCH, WETTED	I	4.1		416	412
UN2257	POTASSIUM	I	4.3		FORBIDDEN	412
UN1870	POTASSIUM BOROHYDRIDE	I	4.3		FORBIDDEN	412
UN1420	POTASSIUM METAL ALLOYS	I	4.3		FORBIDDEN	412
UN2012	POTASSIUM PHOSPHIDE	I	4.3	6.1	FORBIDDEN	412

UN1422	POTASSIUM SODIUM ALLOYS	I	4.3		FORBIDDEN	412
UN1423	RUBIDIUM	I	4.3		FORBIDDEN	412
UN1428	SODIUM	I	4.3		FORBIDDEN	412
UN1426	SODIUM BOROHYDRIDE	I	4.3		FORBIDDEN	412
UN1348	SODIUM DINITRO-o-CRESOLATE, WETTED	I	4.1	6.1	416	412
UN1427	SODIUM HYDRIDE	I	4.3		FORBIDDEN	412
UN1432	SODIUM PHOSPHIDE	I	4.3	6.1	FORBIDDEN	412
UN1349	SODIUM PICRAMATE, WETTED, with not less than 20% water, by mass	I	4.1		FORBIDDEN	412
UN1433	STANNIC PHOSPHIDES	I	4.3	6.1	FORBIDDEN	412
UN2013	STRONTIUM PHOSPHIDE	I	4.3	6.1	FORBIDDEN	412
UN1354	TRINITROBENZENE, WETTED	I	4.1		416	416
UN1355	TRINITROBENZOIC ACID, WETTED	I	4.1		416	416
UN1344	TRINITROPHENOL, WETTED	I	4.1		416	412
UN1356	TRINITROTOLUENE, WETTED with not less than 30% water, by mass	I	4.1		416	416
UN1357	UREA NITRATE, WETTED	I	4.1		416	412
UN1714	ZINC PHOSPHIDE	I	4.3	6.1	FORBIDDEN	412
UN1517	ZIRCONIUM PICRAMATE, WETTED	I	4.1		416	412

4X2	PACKING INSTRUCTION	4X2

The general requirements of Part 4 Chapter 1 must be met.

COMBINATION PACKAGINGS

The following inner packagings are authorized for the indicated mass of solid for passenger and cargo aircraft

	Passenger Aircraft			*Cargo Aircraft*			
	PGI	*PGII*	*PGIII*	*PGI*	*PGII*	*PGIII*	
Glass or earthenware (IP.1)	Prohibited	1kg	5kg	1kg	2.5kg	5kg	***AR 2***
Plastics (IP.2)	Prohibited	2.5k g	10kg	2.5kg	5kg	10kg	***AR 2***
Metal (IP.3)	Prohibited	2.5kg	10kg	2.5kg	5kg	10kg	
Plastics bags (IP.5)	Prohibited	1kg	5kg	2.5kg	2.5kg	5kg	

The following outer packagings are permitted for all inner packagings permitted above

Boxes	***Drums***	***Jerricans***
aluminium (4B) fibreboard (4G) plywood (4D) reconstituted wood (4F) expanded plastics (4H1) solid plastics (4H2) steel (4A) wooden (4C1, 4C2)	aluminium (IB2) fibre (1G) plywood (1D) steel (1A2) plastics (1H2) other metal (1N2)	aluminium (3B2) steel (3A2) plastics (3H2)

SINGLE PACKAGINGS

The following packagings are permitted

Passenger Aircraft			*Cargo Aircraft*			
PGI	*PGII*	*PGIII*	*PGI*	*PGII*	*PGIII*	
Boxes: 4A, 4B, 4C1, 4C2, 4D, 4F, 4G and 4H2	**Boxes:** 4A, 4B, 4C1, 4C2, 4D, 4F, 4G and 4H2	**Boxes:** 4A, 4B, 4C1, 4C2, 4D, 4F, 4G and 4H2	**Boxes:** 4A, 4B, 4C1, 4C2, 4D, 4F, 4G and 4H2	**Boxes:** 4A, 4B, 4C1, 4C2, 4D, 4F, 4G and 4H2	**Boxes:** 4A, 4B, 4C1, 4C2, 4D, 4F, 4G and 4H2	*AR 1*
Drums: lAl, 1A2 1B1, 1B2, 1D, 1G, 1H1, 1H2, 1N1 and 1N2	**Drums:** lAl, 1A2 1B1, 1B2, 1D, 1G, 1H1, 1H2, 1N1 and 1N2	**Drums:** lAl, 1A2 1B1, 1B2, 1D, 1G, 1H1, 1H2, 1N1 and 1N2	**Drums:** lAl, 1A2 1B1, 1B2, 1D, 1G, 1H1, 1H2, 1N1 and 1N2	**Drums:** lAl, 1A2 1B1, 1B2, 1D, 1G, 1H1, 1H2, 1N1 and 1N2	**Drums:** lAl, 1A2 1B1, 1B2, 1D, 1G, 1H1, 1H2, 1N1 and 1N2	*AR1*
Jerricans: 3A1 3A2, 3B1, 3B2 3H1 and 3H2	**Jerricans:** 3A1 3A2, 3B1, 3B2 3H1 and 3H2	**Jerricans:** 3A1 3A2, 3B1,3B2 3H1 and 3H2	**Jerricans:** 3A1 3A2, 3B1,3B2 3H1 and 3H2	**Jerricans:** 3A1 3A2, 3B1, 3B2 3H1 and 3H2	**Jerricans:** 3A1 3A2, 3B1, 3B2 3H1 and 3H2	
Composites (plastic): 6HA1, 6HB1 6HG1, 6HH1, 6HD1, 6H2, 6HB2, 6HC, 6HD2, 6HG2, and 6HH2.	**Composites (plastic):** 6HA1, 6HB1 6HG1, 6HH1, 6HD1, 6H2, 6HB2, 6HC, 6HD2, 6HG2, and 6HH2.	**Composites (plastic):** 6HA1, 6HB1 6HG1, 6HH1, 6HD1, 6H2, 6HB2, 6HC, 6HD2, 6HG2, and 6HH2.	**Composites (plastic):** 6HA1, 6HB16HG1, 6HH1, 6HD1, 6H2, 6HB2, 6HC, 6HD2, 6HG2, and 6HH2.	**Composites (plastic):** 6HA1,6HB1 6HG1, 6HH1,6HD1, 6H2, 6HB2, 6HC, 6HD2, 6HG2, and 6HH2.	**Composites (plastic):** 6HA1, 6HB1 6HG1, 6HH1, 6HD1, 6H2, 6HB2, 6HC, 6HD2, 6HG2, and 6HH2.	

Additional Requirements (AR):

1. Boxes (4A, 4C1, 4D, 4G and 4H2) and fibre (1G), plastics (1H2) and plywood (1D) drums must be fitted with a water resistant inner bag, plastics film lining or water resistant coating.
2. Glass, plastic, or earthenware inner packagings must be packed with cushioning material in tightly closed metal or rigid plastic receptacles before packing into outer packagings.

Particular Packing requirements

PP4-7 For UN 1369 1382, 1384, 1385, 1409,1437, 1871, 2004 and 3182 plastics bag (IP.5) are not permitted

PP4-8 For UN 2318, 3205 and 3206. Inner packaging for passenger aircraft are limited to 1Kg and 2.5Kg for cargo aircraft. Bags (IP.5) are not permitted.

PP4-9 For UN 1378 only glass or earthenware or metal inner packagings are permitted and shall not exceed 1Kg

PP4-10 ~~For UN2004 glass or earthenware inner packagings must be packed with absorbent material in tightly closed metal or rigid plastic receptacles before packing into outer packagings.~~ Not required covered in AR2

PP4-10 For UN 1418, 1436, 2806, 2813, 3131, 3132, 3134 and 3135 in Packing Group I inner packagings shall have threaded closures.

PP4-11 For UN1350 there is no limit to package sizes.

PP4-12 For UN 1326, 1352, 1358, 1437 and 1871 in PGII bags are not allowed

Notes to 4X2

The UN numbers and proper shipping names assigned to 4X2 are:

UN#	ICAO PSN	PG	CLASS	SUB	PASS PI	CARGO PI
UN2940	9-PHOSPHABICYCLONONANES	II	4.2		415	417
UN3206	ALKALI METAL ALCOHOLATES, SELF-HEATING, CORROSIVE, N.O.S.*	II	4.2	8	416	418
UN3206	ALKALI METAL ALCOHOLATES, SELF-HEATING, CORROSIVE, N.O.S.*	III	4.2	8	422	421
UN3205	ALKALINE EARTH METAL ALCOHOLATES, N.O.S.*	II	4.2		416	418
UN3205	ALKALINE EARTH METAL ALCOHOLATES, N.O.S.*	III	4.2		422	421
UN1393	ALKALINE EARTH METAL ALLOY, N.O.S.	II	4.3		415	417
UN1395	ALUMINIUM FERROSILICON POWDER	II	4.3	6.1	415	417
UN1309	ALUMINIUM POWDER, COATED	II	4.1		415	417
UN1309	ALUMINIUM POWDER, COATED	III	4.1		419	420
UN1396	ALUMINIUM POWDER, UNCOATED	II	4.3		415	417
UN1396	ALUMINIUM POWDER, UNCOATED	III	4.3		419	420
UN2715	ALUMINIUM RESINATE	III	4.1		419	420
UN1398	ALUMINIUM SILICON POWDER, UNCOATED	III	4.3		419	420
UN3170	ALUMINIUM SMELTING BY-PRODUCTS	II	4.3		415	417
UN3170	ALUMINIUM SMELTING BY-PRODUCTS	III	4.3		419	420
UN1400	BARIUM	II	4.3		415	417
UN1312	BORNEOL	III	4.1		419	420
UN1401	CALCIUM	II	4.3		415	417
UN1403	CALCIUM CYANAMIDE	III	4.3		419	420
UN1923	CALCIUM DITHIONITE	II	4.2		416	418
UN2844	CALCIUM MANGANESE SILICON	III	4.3		419	420
UN1405	CALCIUM SILICIDE	II	4.3		415	417
UN1405	CALCIUM SILICIDE	III	4.3		419	420
UN2717	CAMPHOR	III	4.1		419	420
UN1362	CARBON, ACTIVATED	III	4.2		426	426
UN2000	CELLULOID	III	4.1		407	407
UN1333	CERIUM, slabs, ingots or rods	II	4.1		415	417
UN3078	CERIUM, turnings or gritty powder	II	4.3		415	417

UN#	ICAO PSN	PG	CLASS	SUB	PASS PI	CARGO PI

UN2001	COBALT NAPHTHENATES, POWDER	III	4.1		419	420
UN1868	DECABORANE	II	4.1	6.1	FORBIDDEN	418
UN2687	DICYCLOHEXYLAMMONIUM NITRITE	III	4.1		419	420
UN1353	FABRICS IMPREGNATED WITH WEAKLY NITRATED NITROCELLULOSE, N.O.S.	III	4.1		419	420
UN1323	FERROCERIUM	II	4.1		415	417
UN1408	FERROSILICON with 30% or more but less than 90% silicon	III	4.3	6.1	422	421
UN2793	FERROUS METAL BORINGS in a form liable to self-heating	III	4.2		419	420
UN2623	FIRELIGHTERS, SOLID with flammable liquid	III	4.1		419	420
UN2925	FLAMMABLE SOLID, CORROSIVE, ORGANIC, N.O.S.*	II	4.1	8	415	417
UN2925	FLAMMABLE SOLID, CORROSIVE, ORGANIC, N.O.S.*	III	4.1	8	419	420
UN3180	FLAMMABLE SOLID, CORROSIVE, INORGANIC, N.O.S.*	II	4.1	8	415	417
UN3180	FLAMMABLE SOLID, CORROSIVE, INORGANIC, N.O.S.*	III	4.1	8	419	420
UN3178	FLAMMABLE SOLID, INORGANIC, N.O.S.*	II	4.1		415	417
UN3178	FLAMMABLE SOLID, INORGANIC, N.O.S.*	III	4.1		419	420
UN1325	FLAMMABLE SOLID, ORGANIC, N.O.S.*	II	4.1		415	417
UN1325	FLAMMABLE SOLID, ORGANIC, N.O.S.*	III	4.1		419	420
UN3179	FLAMMABLE SOLID, TOXIC, INORGANIC, N.O.S.*	II	4.1	6.1	415	417
UN3179	FLA MMABLE SOLID, TOXIC, INORGANIC, N.O.S.*	III	4.1	6.1	419	420
UN2926	FLAMMABLE SOLID, TOXIC, ORGANIC, N.O.S.*	II	4.1	6.1	415	417
UN2926	FLAMMABLE SOLID, TOXIC, ORGANIC, N.O.S.*	III	4.1	6.1	419	420
UN2545	HAFNIUM POWDER, DRY	III	4.2		416	418
UN2545	HAFNIUM POWDER, DRY	III	4.2		416	418
UN1326	HAFNIUM POWDER, WETTED	II	4.1		416	418
UN1328	HEXAMETHYLENETETRAMINE	III	4.1		419	420
UN2907	ISOSORBIDE DINITRATE MIXTURE with not less than 60% lactose, mannose, starch or calcium hydrogen	II	4.1		415	417
UN2989	LEAD PHOSPHITE, DIBASIC	II	4.1		415	417
UN2989	LEAD PHOSPHITE, DIBASIC	III	4.1		419	420
UN2830	LITHIUM FERROSILICON	II	4.3		415	417
UN2806	LITHIUM NITRIDE	I	4.3		FORBIDDEN	411
UN1869	MAGNESIUM	III	4.1		419	420
UN1418	MAGNESIUM ALLOYS POWDER	III	4.3	4.2	419	420
UN2004	MAGNESIUM DIAMIDE	II	4.2		416	418
UN2950	MAGNESIUM GRANULES, COATED	III	4.3		419	420
UN1418	MAGNESIUM POWDER	I	4.3	4.2	FORBIDDEN	411
UN1418	MAGNESIUM POWDER	III	4.3	4.2	419	420
UN2210	MANEB	III	4.2	4.3	419	420
UN2968	MANEB STABILIZED	III	4.3		419	420
UN1330	MANGANESE RESINATE	III	4.1		419	420
UN2881	METAL CATALYST, DRY	III	4.2		422	421
UN2881	METAL CATALYST, DRY	III	4.2		422	421
UN1378	METAL CATALYST, WETTED with a visible excess of liquid	II	4.2		FORBIDDEN	416
UN3182	METAL HYDRIDES, FLAMMABLE, N.O.S.*	II	4.1		416	418

UN#	ICAO PSN	PG	CLASS	SUB	PASS PI	CARGO PI
UN3182	METAL HYDRIDES, FLAMMABLE, N.O.S.*	III	4.1		422	421
UN1409	METAL HYDRIDES, WATER- REACTIVE, N.O.S.*	II	4.3		416	418
UN3089	METAL POWDER, FLAMMABLE, N.O.S.	II	4.1		415	417
UN3089	METAL POWDER, FLAMMABLE, N.O.S.	III	4.1		419	420
UN3189	METAL POWDER, SELF-HEATING N.O.S.*	II	4.2		415	417
UN3189	METAL POWDER, SELF-HEATING N.O.S.*	III	4.2		419	420
UN3181	METAL SALTS OF ORGANIC COMPOUND, FLAMMABLE, N.O.S.*	II	4.1		415	417
UN3181	METAL SALTS OF ORGANIC COMPOUND, FLAMMABLE, N.O.S.*	III	4.1		419	420
UN1332	METALDEHYDE	III	4.1		419	420
UN1334	NAPHTHALENE, CRUDE	III	4.1		419	420
UN2538	NITRONAPHTHALENE	III	4.1		419	420
UN3313	ORGANIC PIGMENTS, SELF HEATING	II	4.2		415	417
UN3313	ORGANIC PIGMENTS, SELF HEATING	III	4.2		419	420
UN2213	PARAFORMALDEHYDE	III	4.1		419	420
UN1339	PHOSPHORUS HEPTASULPHIDE, free from yellow and white phosphorus	II	4.1		416	418
UN1341	PHOSPHORUS SESQUISULPHIDE	II	4.1		416	418
UN1343	PHOSPHORUS TRISULPHIDE	II	4.1		416	418
UN1369	p-NITROSODIMETHYLANILINE	II	4.2		416	418
UN1929	POTASSIUM DITHIONITE	II	4.2		416	418
UN1382	POTASSIUM SULPHIDE, ANHYDROUS	II	4.2		416	418
UN1345	RUBBER SHODDY	II	4.1		415	417
UN3192	SELF-HEATING SOLID, CORROSIVE, INORGANIC, N.O.S.*	II	4.2	8	415	417
UN3192	SELF-HEATING SOLID, CORROSIVE, INORGANIC, N.O.S.*	III	4.2	8	419	420
UN3126	SELF-HEATING SOLID, CORROSIVE, ORGANIC, N.O.S.*	II	4.2	8	415	417
UN3126	SELF-HEATING SOLID, CORROSIVE, ORGANIC, N.O.S.*	III	4.2	8	419	420
UN3190	SELF-HEATING SOLID, INORGANIC, N.O.S.*	II	4.2		415	417
UN3190	SELF-HEATING SOLID, INORGANIC, N.O.S.*	III	4.2		419	420
UN3088	SELF-HEATING SOLID, ORGANIC, N.O.S.*	II	4.2		415	417
UN3088	SELF-HEATING SOLID, ORGANIC, N.O.S.*	III	4.2		419	420
UN3191	SELF-HEATING SOLID, TOXIC, INORGANIC, N.O.S.*	II	4.2	6.1	415	417
UN3191	SELF-HEATING SOLID, TOXIC, INORGANIC, N.O.S.*	III	4.2	6.1	419	420
UN3128	SELF-HEATING SOLID, TOXIC, ORGANIC, N.O.S.*	II	4.2	6.1	415	417
UN3128	SELF-HEATING SOLID, TOXIC, ORGANIC, N.O.S.*	III	4.2	6.1	419	420
UN1346	SILICON POWDER, AMORPHOUS	III	4.1		419	420
UN1384	SODIUM DITHIONITE	II	4.2		416	418
UN2318	SODIUM HYDROSULPHIDE with less than 25% water of crystallization	II	4.2		416	418
UN1431	SODIUM METHYLATE	II	4.2	8	416	418
UN1385	SODIUM SULPHIDE, ANHYDROUS	II	4.2		416	418
UN3175	SOLIDS CONTAINING FLAMMABLE LIQUID, N.O.S.*	II	4.1		415	417
UN1350	SULPHUR	III	4.1		NO LIMIT	NO LIMIT

UN3341	THIOUREA DIOXIDE	II	4.2		415	417
UN#	**ICAO PSN**	**PG**	**CLASS**	**SUB**	**PASS PI**	**CARGO PI**
UN3341	THIOUREA DIOXIDE	III	4.2		419	420
UN3174	TITANIUM DISULPHIDE	III	4.2		419	420
UN1871	TITANIUM HYDRIDE	II	4.1		416	418
UN2546	TITANIUM POWDER, DRY	III	4.2		416	418
UN2546	TITANIUM POWDER, DRY	III	4.2		416	418
UN1352	TITANIUM POWDER, WETTED	II	4.1		416	418
UN2878	TITANIUM SPONGE GRANULES	III	4.1		419	420
UN3131	WATER-REACTIVE SOLID, CORROSIVE, N.O.S.*	I	4.3	8	FORBIDDEN	411
UN3131	WATER-REACTIVE SOLID, CORROSIVE, N.O.S.*	III	4.3	8	419	420
UN3131	WATER-REACTIVE SOLID, CORROSIVE, N.O.S.*	III	4.3	8	419	420
UN3132	WATER-REACTIVE SOLID, FLAMMABLE, N.O.S.*	I	4.3	4.1	FORBIDDEN	411
UN3132	WATER-REACTIVE SOLID, FLAMMABLE, N.O.S.*	III	4.3	4.1	419	420
UN3132	WATER-REACTIVE SOLID, FLAMMABLE, N.O.S.*	III	4.3	4.1	419	420
UN2813	WATER-REACTIVE SOLID, N.O.S.*	I	4.3		FORBIDDEN	411
UN2813	WATER-REACTIVE SOLID, N.O.S.*	III	4.3		419	420
UN2813	WATER-REACTIVE SOLID, N.O.S.*	III	4.3		419	420
UN3135	WATER-REACTIVE SOLID, SELF-HEATING, N.O.S.*	I	4.3	4.2	FORBIDDEN	411
UN3135	WATER-REACTIVE SOLID, SELF-HEATING, N.O.S.*	III	4.3	4.2	419	420
UN3135	WATER-REACTIVE SOLID, SELF-HEATING, N.O.S.*	III	4.3	4.2	419	420
UN3134	WATER-REACTIVE SOLID, TOXIC, N.O.S.*	I	4.3	6.1	FORBIDDEN	411
UN3134	WATER-REACTIVE SOLID, TOXIC, N.O.S.*	III	4.3	6.1	419	420
UN3134	WATER-REACTIVE SOLID, TOXIC, N.O.S.*	III	4.3	6.1	419	420
UN3342	XANTHATES	II	4.2		415	417
UN3342	XANTHATES	III	4.2		419	420
UN1435	ZINC ASHES	III	4.3		419	420
UN1436	ZINC DUST	III	4.3	4.2	419	420
UN1436	ZINC POWDER	I	4.3	4.2	FORBIDDEN	411
UN1436	ZINC POWDER	III	4.3	4.2	419	420
UN2714	ZINC RESINATE	III	4.1		419	420
UN1437	ZIRCONIUM HYDRIDE	II	4.1		416	418
UN2008	ZIRCONIUM POWDER, DRY	III	4.2		416	418
UN2008	ZIRCONIUM POWDER, DRY	III	4.2		416	418
UN1358	ZIRCONIUM POWDER, WETTED	II	4.1		416	418
UN2858	ZIRCONIUM, DRY, coiled wire, finished metal sheets, strip (thinner than 254 microns but not thinner than 18	III	4.1		419	420
UN2009	ZIRCONIUM, DRY, finished sheets, strip or coiled wire (thinner than 18 microns)	III	4.2		419	420

4X5 PACKING INSTRUCTION 4X5

The general requirements of Part 4 Chapter 1 must be met.

COMBINATION PACKAGINGS

The following inner packagings are authorized for the indicated mass of solid for passenger and cargo aircraft.

	Passenger Aircraft	*Cargo Aircraft*
Glass or earthenware (IP.1**)**	1 kg	1 kg
Plastics (IP.2)	1 kg	1 kg
Metal (IP.3)	1 kg	1 kg
Plastics bags (IP.5)	0.1 kg	2.5 kg

The following outer packagings are permitted for all inner packagings permitted above

Boxes	*Drums*	*Jerricans*
aluminium (4B)	aluminium (IB2)	aluminium (3B2)
fibreboard (4G)	fibre (1G)	steel (3A2)
plywood (4D)	plywood (1D)	plastics (3H2)
reconstituted wood (4F)	steel (1A2)	
expanded plastics (4H1)	plastics (1H2)	
solid plastics (4H2)	other metal (1N2)	
steel (4A)		
wooden (4C1, 4C2)		

SINGLE PACKAGINGS

The following packagings are permitted

Passenger Aircraft	*Cargo Aircraft*
FORBIDDEN	**Boxes:** 4A, 4B, 4C1, 4C2, 4D, 4F, 4G and 4H2
	Drums: lAl, 1A2 1B1, 1B2, 1D, 1G, 1H1, 1H2, 1N1 and 1N2
	Jerricans: 3A1, 3A2, 3B1, 3B2, 3H1 and 3H2
	Composites (plastic): 6HA1, 6HB1 6HG1, 6HH1,6HD1, 6H2, 6HB2, 6HC, 6HD2, 6HG2, and 6HH2.

The UN numbers and proper shipping names assigned to 4X5 are:

UN#	ICAO PSN	PG	CLASS	SUB	PASS PI	CARGO PI
UN2556	NITROCELLULOSE WITH ALCOHOL, not less than 25% alcohol, by mass, and not more than 12.6% nitrogen,	II	4.1		416	418
UN2555	NITROCELLULOSE WITH WATER, not less than 25% water by mass	II	4.1		416	418
UN2557	NITROCELLULOSE, with not more than 12.6% nitrogen, by dry mass, MIXTURE, WITHOUT PLASTICIZER	II	4.1		416	418

The general requirements of Part 4 Chapter 1 must be met.

COMBINATION PACKAGINGS

The following inner packagings are authorized for the indicated mass of solid for passenger and cargo aircraft.

	Passenger Aircraft	***Cargo Aircraft***
Glass or earthenware (IP.1**)**	1 kg	2.5 kg
Plastics (IP.2)	1 kg	2.5 kg
Metal (IP.3)	5 kg	10 kg

The following outer packagings are permitted for all inner packagings permitted above

Boxes	*Drums*	*Jerricans*
aluminium (4B)	aluminium (IB2)	aluminium (3B2)
fibreboard (4G)	fibre (1G)	steel (3A2)
plywood (4D)	plywood (1D)	plastics (3H2)
reconstituted wood (4F)	steel (1A2)	
expanded plastics (4H1)	plastics (1H2)	
solid plastics (4H2)	other metal (1N2)	
steel (4A)		
wooden (4C1, 4C2)		

SINGLE PACKAGINGS

The following packagings are permitted

Passenger Aircraft	***Cargo Aircraft***
FORBIDDEN	**Boxes:** 4A, 4B, 4C1, 4C2, 4D, 4F, 4G and 4H2
	Drums: lAl, 1A2 1B1, 1B2, 1H1, 1H2, 1N1 and 1N2
	Jerricans: 3A1, 3A2, 3B1, 3B2, 3H1 and 3H2
	Composites (plastic): 6HA1, 6HB1 6HG1, 6HH1,6HD1, 6H2, 6HB2, 6HC, 6HD2, 6HG2, and 6HH2.

Particular Packing Requirements

PP4-13 For UN 3241 No metal packagings are permitted (inner or outers) and glass earthenware inner packagings are limited to 0.5Kg, Plastics bags (IP.5) up to 0.5Kg are also permitted.

PP4-14 For UN 1338 glass or earthenware inner packagings are limited to 0.5Kg for passenger aircraft and 1Kg for cargo aircraft.

The UN numbers and proper shipping names assigned to 4X7 are:

UN#	ICAO PSN	PG	CLASS	SUB	PASS PI	CARGO PI
UN3241	2-BROMO-2-NITROPROPANE-1,3-DIOL	III	4.1		434	434
UN1313	CALCIUM RESINATE	III	4.1		422	421
UN1314	CALCIUM RESINATE, FUSED	III	4.1		422	421
UN1318	COBALT RESINATE, PRECIPITATED	III	4.1		422	421
UN1338	PHOSPHORUS, AMORPHOUS	III	4.1		422	421

4X8 PACKING INSTRUCTION 4X8

The general requirements of Part 4 Chapter 1 must be met.

COMBINATION PACKAGINGS

The following inner packagings are authorized for the indicated volume of liquid for passenger and cargo aircraft. When a packaging is not permitted the word "prohibited" is indicated.

	Passenger Aircraft			***Cargo Aircraft***			
	PGI	*PGII*	*PGIII*	*PGI*	*PGII*	*PGIII*	
Glass or earthenware (IP.1)	Prohibited	1L	2.5L	1L	2.5L	5L	***AR 1***
Plastics (IP.2)	Prohibited	1L	2.5L	Prohibited	2.5L	5L	***AR 1***
Metal (IP.3)	Prohibited	1L	5L	1L	5L	10L	

The following outer packagings are permitted for all inner packagings permitted above

Boxes	*Drums*	*Jerricans*
aluminium (4B) fibreboard (4G) plywood (4D) reconstituted wood (4F) expanded plastics (4H1) solid plastics (4H2) steel (4A) wooden (4C1, 4C2)	aluminium (IB2) fibre (1G) plywood (1D) steel (1A2) plastics (1H2) other metal (1N2)	aluminium (3B2) steel (3A2) plastics (3H2)

SINGLE PACKAGINGS

The following packagings are permitted

Passenger Aircraft			***Cargo Aircraft***		
PGI	*PGII*	*PGIII*	*PGI*	*PGII*	*PGIII*
				Drums: lAl, 1A2, 1B1, 1B2, 1H1, 1H2, 1N1 and 1N2	**Drums:** lAl, 1A2, 1B1, 1B2, 1H1, 1H2, 1N1 and 1N2
FORBIDDEN				**Jerricans:** 3A1 3A2, 3B1, 3B2 3H1 and 3H2	**Jerricans:** 3A1 3A2, 3B1, 3B2 3H1 and 3H2
				Composites (plastic): 6HA1,6HB1 6HG1, 6HH1,6HD1, 6H2, 6HB2, 6HC, 6HD2, 6HG2, and 6HH2.	**Composites (plastic):** 6HA1, 6HB1 6HG1, 6HH1, 6HD1, 6H2, 6HB2, 6HC, 6HD2, 6HG2, and 6HH2.

Additional Requirements (AR):

1. Glass, plastic, or earthenware inner packagings must be packed with cushioning material in tightly closed metal or rigid plastic receptacles before packing into outer packagings.

Particular Packing requirements

PP4-15 For UN 3207, 3208 and 3209 plastics packaging are not permitted.

Notes on PI 4X8:

- UN3207 in 432 is permitted in cylinders as single packagings. In UN P401 and P402 a cylinder is required for all the substances allocated to 4X8. Why is it only the N.O.S entry is permitted in a cylinder and not the pure substances, which appear to be allowed in ordinary single packagings? Most of the substances allocated to this PI would not be permitted in ordinary UN packagings as singles (i.e. cylinders are mandatory).

The UN numbers and proper shipping names assigned to 4X8 are:

UN#	ICAO PSN	PG	CLASS	SUB	PASS PI	CARGO PI
UN1421	ALKALI METAL ALLOY, LIQUID, N.O.S.	I	4.3		FORBIDDEN	409
UN1389	ALKALI METAL AMALGAM, LIQUID	I	4.3		FORBIDDEN	409
UN1391	ALKALI METAL DISPERSION	I	4.3		FORBIDDEN	409
UN1391	ALKALINE EARTH METAL DISPERSION	I	4.3		FORBIDDEN	409
UN2965	BORON TRIFLUORIDE DIMETHYL ETHERATE	I	4.3	3, 8	FORBIDDEN	408
UN2988	CHLOROSILANES, WATER-REACTIVE, FLAMMABLE, CORROSIVE, N.O.S.	I	4.3	3, 8	FORBIDDEN	408
UN1183	ETHYLDICHLOROSILANE	I	4.3	3, 8	FORBIDDEN	409
UN1411	LITHIUM ALUMINIUM HYDRIDE, ETHEREAL	I	4.3	3	FORBIDDEN	409
UN3208	METALLIC SUBSTANCE, WATER-REACTIVE, N.O.S.*	II	4.3		416	418
UN3208	METALLIC SUBSTANCE, WATER-REACTIVE, N.O.S.*	III	4.3		422	421
UN3209	METALLIC SUBSTANCE, WATER-REACTIVE, SELF-HEATING, N.O.S.*	II	4.3	4.2	416	418
UN3209	METALLIC SUBSTANCE, WATER-REACTIVE, SELF-HEATING, N.O.S.*	III	4.3	4.2	422	421
UN1928	METHYL MAGNESIUM BROMIDE IN ETHYL ETHER	I	4.3	3	FORBIDDEN	409
UN1242	METHYLDICHLOROSILANE	I	4.3	3, 8	FORBIDDEN	409
UN3207	ORGANOMETALLIC COMPOUND SOLUTION, WATER-REACTIVE, FLAMMABLE, N.O.S.*	I	4.3	3	FORBIDDEN	409
UN3207	ORGANOMETALLIC COMPOUND, WATER-REACTIVE, FLAMMABLE, N.O.S.*	II	4.3	3	409	431
UN3207	ORGANOMETALLIC COMPOUND, WATER-REACTIVE, FLAMMABLE, N.O.S.*	III	4.3	3	431	432
UN3188	SELF-HEATING LIQUID, CORROSIVE, INORGANIC, N.O.S.*	II	4.2	8	408	414
UN3188	SELF-HEATING LIQUID, CORROSIVE, INORGANIC, N.O.S.*	III	4.2	8	414	425
UN3185	SELF-HEATING LIQUID, CORROSIVE, ORGANIC, N.O.S.*	II	4.2	8	408	414
UN3185	SELF-HEATING LIQUID, CORROSIVE, ORGANIC, N.O.S.*	III	4.2	8	414	425
UN3186	SELF-HEATING LIQUID, INORGANIC, N.O.S.*	II	4.2		408	414
UN3186	SELF-HEATING LIQUID, INORGANIC, N.O.S.*	III	4.2		414	425
UN3183	SELF-HEATING LIQUID, ORGANIC, N.O.S.*	II	4.2		408	414
UN3183	SELF-HEATING LIQUID, ORGANIC, N.O.S.*	III	4.2		414	425
UN3187	SELF-HEATING LIQUID, TOXIC, INORGANIC, N.O.S.*	II	4.2	6.1	408	414
UN3187	SELF-HEATING LIQUID, TOXIC, INORGANIC, N.O.S.*	III	4.2	6.1	414	425
UN3184	SELF-HEATING LIQUID, TOXIC, ORGANIC, N.O.S.*	II	4.2	6.1	408	414
UN3184	SELF-HEATING LIQUID, TOXIC, ORGANIC, N.O.S.*	III	4.2	6.1	414	425
UN3129	WATER-REACTIVE LIQUID, CORROSIVE, N.O.S.*	I	4.3	8	FORBIDDEN	408
UN3129	WATER-REACTIVE LIQUID, CORROSIVE, N.O.S.*	II	4.3	8	413	414
UN3129	WATER-REACTIVE LIQUID, CORROSIVE, N.O.S.*	III	4.3	8	414	425
UN3148	WATER-REACTIVE LIQUID, N.O.S.*	I	4.3		FORBIDDEN	408
UN3148	WATER-REACTIVE LIQUID, N.O.S.*	II	4.3		413	414
UN3148	WATER-REACTIVE LIQUID, N.O.S.*	III	4.3		414	425
UN3130	WATER-REACTIVE LIQUID, TOXIC, N.O.S.*	I	4.3	6.1	FORBIDDEN	408
UN3130	WATER-REACTIVE LIQUID, TOXIC, N.O.S.*	II	4.3	6.1	413	414

UN3130	WATER-REACTIVE LIQUID, TOXIC, N.O.S.*	III	4.3	6.1	414	425

4X15 PACKING INSTRUCTION 4X15

The general requirements of Part 4 Chapter 1 must be met.

COMBINATION PACKAGINGS

The following inner packagings are authorized for the indicated mass of solid for passenger and cargo aircraft.

	Passenger Aircraft	*Cargo Aircraft*	
Glass or earthenware (IP.1**)**	1 kg	2.5 kg	*AR1*
Plastics (IP.2)	1 kg	2.5 kg	*AR1*
Metal (IP.3)	1 kg	5 kg	

The following outer packagings are permitted for all inner packagings permitted above

Boxes	*Drums*	*Jerricans*
aluminium (4B)	aluminium (IB2)	aluminium (3B2)
fibreboard (4G)	fibre (1G)	steel (3A2)
plywood (4D)	plywood (1D)	plastics (3H2)
reconstituted wood (4F)	steel (1A2)	
expanded plastics (4H1)	plastics (1H2)	
solid plastics (4H2)	other metal (1N2)	
steel (4A)		
wooden (4C1, 4C2)		

SINGLE PACKAGINGS

The following packagings are permitted

Passenger Aircraft	***Cargo Aircraft***
FORBIDDEN	**Boxes:** 4A, 4B, 4C1, 4C2, 4D, 4F, 4G and 4H2
	Drums: lAl, 1A2 1B1, 1B2, 1D, 1G, 1H1, 1H2, 1N1 and 1N2
	Jerricans: 3A1, 3A2, 3B1, 3B2, 3H1 and 3H2
	Composites (plastic): 6HA1, 6HB1 6HG1, 6HH1,6HD1, 6H2, 6HB2, 6HC, 6HD2, 6HG2, and 6HH2.

Additional Requirements (AR):

1. Glass, plastic, or earthenware inner packagings must be packed with cushioning material in tightly closed metal or rigid plastic receptacles before packing into outer packagings

Notes on PI4X15:

- Propose to increase UN2805 to 5kg in metal inner packagings.

The UN numbers and proper shipping names assigned to 4X15 are:

UN#	ICAO PSN	PG	CLASS	SUB	PASS PI	CARGO PI
UN1390	ALKALI METAL AMIDES	II	4.3		416	418
UN1394	ALUMINIUM CARBIDE	II	4.3		416	418
UN1402	CALCIUM CARBIDE	II	4.3		416	418
UN2805	LITHIUM HYDRIDE, FUSED SOLID	II	4.3		416	418
UN2835	SODIUM ALUMINIUM HYDRIDE	II	4.3		FORBIDDEN	418

4X16 PACKING INSTRUCTION 4X16

The general requirements of Part 4 Chapter 1 must be met.

COMBINATION PACKAGINGS

The following inner packagings are authorized for the indicated mass of solid for passenger and cargo aircraft.

	Passenger Aircraft	***Cargo Aircraft***
Glass or earthenware (IP.1)	0.5 kg	1 kg
Plastics (IP.2)	0.5 kg	1 kg
Metal (IP.3)	0.5 kg	1 kg

The following outer packagings are permitted for all inner packagings permitted above

Boxes	*Drums*	*Jerricans*
aluminium (4B)	aluminium (IB2)	aluminium (3B2)
fibreboard (4G)	fibre (1G)	steel (3A2)
plywood (4D)	plywood (1D)	plastics (3H2)
reconstituted wood (4F)	steel (1A2)	
expanded plastics (4H1)	plastics (1H2)	
solid plastics (4H2)	other metal (1N2)	
steel (4A)		
wooden (4C1, 4C2)		

SINGLE PACKAGINGS

The following packagings are permitted

Passenger Aircraft	***Cargo Aircraft***
FORBIDDEN	**Boxes:** 4A, 4B, 4C1, 4C2, 4D, 4F, 4G and 4H2
	Drums: lAl, 1A2 1B1, 1B2, 1D, 1G, 1H1, 1H2, 1N1 and 1N2
	Jerricans: 3A1, 3A2, 3B1, 3B2, 3H1 and 3H2
	Composites (plastic): 6HA1, 6HB1 6HG1, 6HH1,6HD1, 6H2, 6HB2, 6HC, 6HD2, 6HG2, and 6HH2.

Notes on PI 4X16:

- No changes to quantities. Propose that UN 1340 is reviewed and aligned with the other substances. Plastic inners very strange forbidden PAX and 5 Kg CAO.
- If the DGP were to agree to some rationalization of inner packaging quantities it might be possible to place these substances in 4X2.

The UN numbers and proper shipping names assigned to 4X16 are:

UN#	ICAO PSN	PG	CLASS	SUB	PASS PI	CARGO PI
UN1417	LITHIUM SILICON	II	4.3		416	418
UN2624	MAGNESIUM SILICIDE	II	4.3		416	418
UN1340	PHOSPHORUS PENTASULPHIDE	II	4.3	4.1	416	418

4X17 **PACKING INSTRUCTION** **4X17**

The general requirements of Part 4 Chapter 1 must be met.

COMBINATION PACKAGINGS

The following inner packagings are authorized for the indicated mass of solid for passenger and cargo aircraft.

	Passenger Aircraft	**Cargo Aircraft**
For UN 3223, UN 3225	.5 L	1 L
For UN 3227, UN 3229	1 L	2.5 L
For UN 3224, UN 3226	.5 kg	1 kg
For UN 3228, UN 3230	1 kg	2.5 kg

The following outer packagings are permitted for all inner packagings permitted above

Boxes	*Drums*	*Jerricans*
aluminium (4B)	aluminium (IB2)	aluminium (3B2)
fibreboard (4G)	fibre (1G)	steel (3A2)
plywood (4D)	plywood (1D)	plastics (3H2)
reconstituted wood (4F)	steel (1A2)	
expanded plastics (4H1)	plastics (1H2)	
solid plastics (4H2)	other metal (1N2)	
steel (4A)		
wooden (4C1, 4C2)		

The UN numbers and proper shipping names assigned to 4X17 are:

UN#	**ICAO PSN**	**PG**	**CLASS**	**SUB**	**PASS PI**	**CARGO PI**
UN3223	SELF-REACTIVE LIQUID TYPE C*		4.1		427	428
UN3225	SELF-REACTIVE LIQUID TYPE D*		4.1		427	428
UN3227	SELF-REACTIVE LIQUID TYPE E*		4.1		427	428
UN3229	SELF-REACTIVE LIQUID TYPE F*		4.1		427	428
UN3224	SELF-REACTIVE SOLID TYPE C*		4.1		429	430
UN3226	SELF-REACTIVE SOLID TYPE D*		4.1		429	430
UN3228	SELF-REACTIVE SOLID TYPE E*		4.1		429	430
UN3230	SELF-REACTIVE SOLID TYPE F*		4.1		429	430

Y4X1 **PACKING INSTRUCTION** **Y4X1**

The requirements of Part 3 Chapter 4 must be met.

COMBINATION PACKAGINGS

The following inner packagings are authorized for the indicated mass of solid for passenger and cargo aircraft. When a packaging is not permitted the word "prohibited" is indicated.

Single packagings not permitted

	PGI	*PGII*	*PGIII*
Glass or earthenware (IP.1)	Prohibited	0.5 kg	1 kg
Plastics (IP.2)	Prohobited	0.5 kg	1 kg
Metal (IP.3)	Prohibited	0.5 kg	1 kg
Plastics bags (IP.5)	Prohibited	0.5 kg	1 kg

The following outer packagings are permitted for all inner packagings permitted above

Boxes	*Drums*	*Jerricans*
aluminium	aluminium	aluminium
fibreboard	fibre	steel
plywood	plywood	plastics
reconstituted wood	steel	
expanded plastics	plastics	
solid plastics	other metal	
steel		
wooden		

Particular Packing requirements:

PP4-6 For UN 2257 and, 3208 if the substance is a dispersion in organic liquid, the organic liquid must have a flashpoint above 50°°C.

PP4-7 For UN 1409 and 1437 plastics bag (IP.5) are not permitted

PP4-12 For UN 1326, 1352, 1358, 1437 and 1871 in PGII bags are not allowed (UN PP40 in P406)

PP4-15 For UN 3208 plastics packaging are not permitted.

PP4-16 For UN 1390 and 1402 glass, plastic, or earthenware inner packagings must be packed with cushioning material in tightly closed metal or rigid plastic receptacles before packing into outer packagings

The UN numbers and proper shipping names assigned to Y4X1 are:

UN#	ICAO PSN	PG	CLASS	SUB	LQ PI
UN3241	2-BROMO-2-NITROPROPANE-1,3-DIOL	III	4.1		Y434
UN1390	ALKALI METAL AMIDES	II	4.3		Y416
UN1393	ALKALINE EARTH METAL ALLOY, N.O.S.	II	4.3		Y415
UN1394	ALUMINIUM CARBIDE	II	4.3		Y416
UN1395	ALUMINIUM FERROSILICON POWDER	II	4.3	6.1	Y415
UN1309	ALUMINIUM POWDER, COATED	II	4.1		Y415
UN1309	ALUMINIUM POWDER, COATED	III	4.1		Y419
UN1396	ALUMINIUM POWDER, UNCOATED	II	4.3		Y415
UN1396	ALUMINIUM POWDER, UNCOATED	III	4.3		Y419
UN2715	ALUMINIUM RESINATE	III	4.1		Y419
UN1398	ALUMINIUM SILICON POWDER, UNCOATED	III	4.3		Y419
UN3170	ALUMINIUM SMELTING BY-PRODUCTS	II	4.3		Y415

UN#	ICAO PSN	PG	CLASS	SUB	LQ PI
UN3170	ALUMINIUM SMELTING BY-PRODUCTS	III	4.3		Y419
UN1400	BARIUM	II	4.3		Y415
UN1312	BORNEOL	III	4.1		Y419
UN1401	CALCIUM	II	4.3		Y415
UN1402	CALCIUM CARBIDE	II	4.3		Y416
UN1403	CALCIUM CYANAMIDE	III	4.3		Y419
UN2844	CALCIUM MANGANESE SILICON	III	4.3		Y419
UN1313	CALCIUM RESINATE	III	4.1		Y422
UN1314	CALCIUM RESINATE, FUSED	III	4.1		Y422
UN1405	CALCIUM SILICIDE	II	4.3		Y415
UN1405	CALCIUM SILICIDE	III	4.3		Y419
UN2717	CAMPHOR	III	4.1		Y419
UN3078	CERIUM, turnings or gritty powder	II	4.3		Y415
UN2001	COBALT NAPHTHENATES, POWDER	III	4.1		Y419
UN1318	COBALT RESINATE, PRECIPITATED	III	4.1		Y422
UN2687	DICYCLOHEXYLAMMONIUM NITRITE	III	4.1		Y419
UN1353	FABRICS IMPREGNATED WITH WEAKLY NITRATED NITROCELLULOSE, N.O.S.	III	4.1		Y419
UN1323	FERROCERIUM	II	4.1		Y415
UN1408	FERROSILICON with 30% or more but less than 90% silicon	III	4.3	6.1	Y422
UN2623	FIRELIGHTERS, SOLID with flammable liquid	III	4.1		Y419
UN2925	FLAMMABLE SOLID, CORROSIVE, ORGANIC, N.O.S.*	II	4.1	8	Y415
UN2925	FLAMMABLE SOLID, CORROSIVE, ORGANIC, N.O.S.*	III	4.1	8	Y419
UN3180	FLAMMABLE SOLID, CORROSIVE, INORGANIC, N.O.S.*	II	4.1	8	Y415
UN3180	FLAMMABLE SOLID, CORROSIVE, INORGANIC, N.O.S.*	III	4.1	8	Y419
UN3178	FLAMMABLE SOLID, INORGANIC, N.O.S.*	II	4.1		Y415
UN3178	FLAMMABLE SOLID, INORGANIC, N.O.S.*	III	4.1		Y419
UN1325	FLAMMABLE SOLID, ORGANIC, N.O.S.*	II	4.1		Y415
UN1325	FLAMMABLE SOLID, ORGANIC, N.O.S.*	III	4.1		Y419
UN3179	FLAMMABLE SOLID, TOXIC, INORGANIC, N.O.S.*	II	4.1	6.1	Y415
UN3179	FLAMMABLE SOLID, TOXIC, INORGANIC, N.O.S.*	III	4.1	6.1	Y419
UN2926	FLAMMABLE SOLID, TOXIC, ORGANIC, N.O.S.*	II	4.1	6.1	Y415
UN2926	FLAMMABLE SOLID, TOXIC, ORGANIC, N.O.S.*	III	4.1	6.1	Y419
UN1326	HAFNIUM POWDER, WETTED	II	4.1		Y416
UN1328	HEXAMETHYLENETETRAMINE	III	4.1		Y419
UN2907	ISOSORBIDE DINITRATE MIXTURE with not less than 60% lactose, mannose, starch or calcium hydrogen phosphate	II	4.1		Y415
UN2989	LEAD PHOSPHITE, DIBASIC	II	4.1		Y415
UN2989	LEAD PHOSPHITE, DIBASIC	III	4.1		Y419
UN2830	LITHIUM FERROSILICON	II	4.3		Y415
UN2805	LITHIUM HYDRIDE, FUSED SOLID	II	4.3		Y416
UN1417	LITHIUM SILICON	II	4.3		Y416

UN1869	MAGNESIUM	III	4.1		Y419
UN2950	MAGNESIUM GRANULES, COATED	III	4.3		Y419

UN#	ICAO PSN	PG	CLASS	SUB	LQ PI
UN2624	MAGNESIUM SILICIDE	II	4.3		Y416
UN2968	MANEB STABILIZED	III	4.3		Y419
UN1330	MANGANESE RESINATE	III	4.1		Y419
UN3182	METAL HYDRIDES, FLAMMABLE, N.O.S.*	II	4.1		Y416
UN3182	METAL HYDRIDES, FLAMMABLE, N.O.S.*	III	4.1		Y422
UN1409	METAL HYDRIDES, WATER- REACTIVE, N.O.S.*	II	4.3		Y416
UN3181	METAL SALTS OF ORGANIC COMPOUND, FLAMMABLE, N.O.S.*	II	4.1		Y415
UN3181	METAL SALTS OF ORGANIC COMPOUND, FLAMMABLE, N.O.S.*	III	4.1		Y419
UN3208	METALLIC SUBSTANCE, WATER-REACTIVE, N.O.S.*	III	4.3		Y422
UN3208	METALLIC SUBSTANCE, WATER-REACTIVE, N.O.S.*	III	4.3		Y422
UN1334	NAPHTHALENE, CRUDE	III	4.1		Y419
UN2557	NITROCELLULOSE, with not more than 12.6% nitrogen, by dry mass, MIXTURE, WITHOUT PLASTICIZER	II	4.1		Y416
UN2538	NITRONAPHTHALENE	III	4.1		Y419
UN2213	PARAFORMALDEHYDE	III	4.1		Y419
UN1339	PHOSPHORUS HEPTASULPHIDE, free from yellow and white phosphorus	II	4.1		Y416
UN1340	PHOSPHORUS PENTASULPHIDE	II	4.3	4.1	Y416
UN1341	PHOSPHORUS SESQUISULPHIDE	II	4.1		Y416
UN1343	PHOSPHORUS TRISULPHIDE	II	4.1		Y416
UN1345	RUBBER SHODDY	II	4.1		Y415
UN1346	SILICON POWDER, AMORPHOUS	III	4.1		Y419
UN3175	SOLIDS CONTAINING FLAMMABLE LIQUID, N.O.S.*	II	4.1		Y415
UN1871	TITANIUM HYDRIDE	II	4.1		Y416
UN1352	TITANIUM POWDER, WETTED	II	4.1		Y416
UN2878	TITANIUM SPONGE GRANULES	III	4.1		Y419
UN3131	WATER-REACTIVE SOLID, CORROSIVE, N.O.S.*	III	4.3	8	Y419
UN3131	WATER-REACTIVE SOLID, CORROSIVE, N.O.S.*	III	4.3	8	Y419
UN3132	WATER-REACTIVE SOLID, FLAMMABLE, N.O.S.*	III	4.3	4.1	Y419
UN3132	WATER-REACTIVE SOLID, FLAMMABLE, N.O.S.*	III	4.3	4.1	Y419
UN2813	WATER-REACTIVE SOLID, N.O.S.*	III	4.3		Y419
UN2813	WATER-REACTIVE SOLID, N.O.S.*	III	4.3		Y419
UN3134	WATER-REACTIVE SOLID, TOXIC, N.O.S.*	III	4.3	6.1	Y419
UN3134	WATER-REACTIVE SOLID, TOXIC, N.O.S.*	III	4.3	6.1	Y419
UN1435	ZINC ASHES	III	4.3		Y419
UN2714	ZINC RESINATE	III	4.1		Y419
UN1437	ZIRCONIUM HYDRIDE	II	4.1		Y416
UN1358	ZIRCONIUM POWDER, WETTED	II	4.1		Y416
UN2858	ZIRCONIUM, DRY, coiled wire, finished metal sheets, strip (thinner than 254 microns but not thinner than 18 microns)	III	4.1		Y419

Particular packing requirements for Class 4.

4X1

PP4-1 For UN Nos. 1310, 1320, 1321, 1322, 1344, 1348, 1349, 1517, 3317 and packaging shall be lead free.

PP4-2 For UN 1310, 1410 and 1419 glass inner packagings are not permitted

PP4-3 For UN1310, 1354, 1355, 1356 and 1571 inner packagings are limited to 0.5Kg

PP4-4 For UN 2852 inner packagings of glass only are limited to 0.25Kg

~~**PP4-5** For UN 1360,1381, 1392, 1419, 1420, 1422, 1423, 1428 and 1870 metal inner packagings must not exceed 2.5kg~~ NOT required quantity too high for air

PP4-5 For UN 1420, 1422, 1423, 1428, and 2257 plastics packagings (inners or singles) are not permitted

PP4-6 For UN 1389, 1407, 1415, 1420, 1422, 1423, 1428, 2257, 3208, and 3209 if the substance is a dispersion in organic liquid, the organic liquid must have a flashpoint above 50°C and single packagings shall not be used.

4X2

PP4-7 For UN 1369 1382, 1384, 1385, 1409, 1437, 2004 and 3182 plastics bag (IP.5) are not permitted

PP4-8 For UN 2318, 3205 and 3206. Inner packaging for passenger aircraft are limited to 1Kg and 2.5Kg for cargo aircraft. Bags (IP.5) are not permitted.

PP4-9 For UN 1378 only glass or earthenware or metal inner packagings are permitted and shall not exceed 1Kg

~~**PP4-10** For UN2004 glass or earthenware inner packagings must be packed with absorbent material in tightly closed metal or rigid plastic receptacles before packing into outer packagings.~~ Not required covered in AR2

PP4-10 For UN 1418, 1436, 2806, 2813, 3131, 3132, 3134 and 3135 in Packing Group I inner packagings shall have threaded closures.

PP4-11 For UN1350 there is no limit to package sizes.

PP4-12 For UN 1326, 1352, 1358, 1437 and 1871 in PGII bags are not allowed (UN PP40 in P406)

4X7

PP4-13 For UN 3241 No metal packagings is permitted (inner or outers) and glass earthenware inner packagings are limited to 0.5Kg, Plastics bags (IP.5) up to 0.5Kg are also permitted.

PP4-14 For UN 1338 glass or earthenware inner packagings are limited to 0.5Kg for passenger aircraft and 1Kg for cargo aircraft.

4X8

PP4-15 UN 3207, 3208 and 3209 plastics packaging are not permitted.

Y4X1

PP4-16 For UN 1390 and 1402 glass, plastic, or earthenware inner packagings must be packed with cushioning material in tightly closed metal or rigid plastic receptacles before packing into outer packagings

The UN numbers and proper shipping names not allocated to a class 4 packing instruction are:

UN#	ICAO PSN	PG	CLASS	SUB	PASS PI	CARGO PI
UN3052			4.2	4.3	FORBIDDEN	FORBIDDEN
UN2956	5-tert-BUTYL-2,4,6-TRINITRO-m-XYLENE		4.1		FORBIDDEN	FORBIDDEN
UN3076	ALUMINIUM ALKYL HYDRIDES		4.2	4.3	FORBIDDEN	FORBIDDEN
UN3051	ALUMINIUM ALKYLS		4.2	4.3	FORBIDDEN	FORBIDDEN
UN2870	ALUMINIUM BOROHYDRIDE		4.2	4.3	FORBIDDEN	FORBIDDEN
UN3242	AZODICARBONAMIDE		4.1		FORBIDDEN	FORBIDDEN
UN1854	BARIUM ALLOYS, PYROPHORIC		4.2		FORBIDDEN	FORBIDDEN
UN1855	CALCIUM PYROPHORIC		4.2		FORBIDDEN	FORBIDDEN
UN1361	CARBON		4.2		FORBIDDEN	FORBIDDEN
UN2002	CELLULOID, SCRAP		4.2		FORBIDDEN	FORBIDDEN
UN1363	COPRA		4.2		FORBIDDEN	FORBIDDEN
UN1364	COTTON WASTE, OILY		4.2		FORBIDDEN	FORBIDDEN
UN1365	COTTON, WET		4.2		FORBIDDEN	FORBIDDEN
UN1366	DIETHYLZINC		4.2	4.3	FORBIDDEN	FORBIDDEN
UN1370	DIMETHYLZINC		4.2	4.3	FORBIDDEN	FORBIDDEN
UN1373	FABRICS, ANIMAL, N.O.S., with oil		4.2		FORBIDDEN	FORBIDDEN
UN3176	FLAMMABLE SOLID, ORGANIC, MOLTEN, N.O.S.*		4.1		FORBIDDEN	FORBIDDEN
UN3097	FLAMMSBLE SOLID, OXIDIZING, N.O.S.*		4.1	5.1	FORBIDDEN	FORBIDDEN
UN2545	HAFNIUM POWDER, DRY	I	4.2		FORBIDDEN	FORBIDDEN
UN1376	IRON OXIDE, SPENT (obtained from coal gas purification)		4.2		FORBIDDEN	FORBIDDEN
UN3251	ISOSORBIDE-5-MONONITRATE		4.1		FORBIDDEN	FORBIDDEN
UN2445	LITHIUM ALKYLS		4.2	4.3	FORBIDDEN	FORBIDDEN
UN3053	MAGNESIUM ALKYLS		4.2	4.3	FORBIDDEN	FORBIDDEN
UN2005	MAGNESIUM DIPHENYL		4.2		FORBIDDEN	FORBIDDEN
UN1331	MATCHES, `STRIKE ANYWHERE'		4.1		FORBIDDEN	FORBIDDEN
UN2254	MATCHES, FUSEE		4.1		FORBIDDEN	FORBIDDEN
UN3049	METAL ALKYL HALIDES, N.O.S.*		4.2	4.3	FORBIDDEN	FORBIDDEN
UN3050	METAL ALKYL HYDRIDES, N.O.S.*		4.2	4.3	FORBIDDEN	FORBIDDEN
UN2003	METAL ALKYLS, N.O.S.*		4.2	4.3	FORBIDDEN	FORBIDDEN
UN2881	METAL CATALYST, DRY	I	4.2		FORBIDDEN	FORBIDDEN
UN2304	NAPHTHALENE, MOLTEN		4.1		FORBIDDEN	FORBIDDEN
UN1379	PAPER, UNSATURATED OIL TREATED		4.2		FORBIDDEN	FORBIDDEN
UN1380	PENTABORANE		4.2	6.1	FORBIDDEN	FORBIDDEN
UN3344	PENTAERYTHRITE TETRANITRATE MIXTURE DESENSITISED, SOLID, n.o.s.* with more than 10% but not more than 20% PETN, by mass		4.1		FORBIDDEN	FORBIDDEN
UN1381	PHOSPHORUS, WHITE, DRY		4.2	6.1	FORBIDDEN	FORBIDDEN
UN2447	PHOSPHORUS, WHITE, MOLTEN		4.2	6.1	FORBIDDEN	FORBIDDEN
UN2006	PLASTICS, NITROCELLULOSE-BASED, SELF-HEATING, N.O.S.*		4.2		FORBIDDEN	FORBIDDEN
UN3194	PYROPHORIC LIQUID, INORGANIC, N.O.S.*		4.2		FORBIDDEN	FORBIDDEN
UN2845	PYROPHORIC LIQUID, ORGANIC, N.O.S.*		4.2		FORBIDDEN	FORBIDDEN

UN#	ICAO PSN	PG	CLASS	SUB	PASS PI	CARGO PI
UN1383	PYROPHORIC METAL, N.O.S.*		4.2		FORBIDDEN	FORBIDDEN
UN3203	PYROPHORIC ORGANOMETALLIC COMPOUND, N.O.S.*		4.2	4.3	FORBIDDEN	FORBIDDEN
UN3200	PYROPHORIC SOLID, INORGANIC, N.O.S.*		4.2		FORBIDDEN	FORBIDDEN
UN2846	PYROPHORIC SOLID, ORGANIC, N.O.S.*		4.2		FORBIDDEN	FORBIDDEN
UN1386	SEED CAKE with more than 1.5% oil and not more than 11% moisture		4.2		FORBIDDEN	FORBIDDEN
UN2217	SEED CAKE with not more than 1.5% oil and not more than 11% moisture		4.2		FORBIDDEN	FORBIDDEN
UN3127	SELF-HEATING SOLID, OXIDIZING, N.O.S.*		4.2	5.1	FORBIDDEN	FORBIDDEN
UN3221	SELF-REACTIVE LIQUID TYPE B*		4.1		FORBIDDEN	FORBIDDEN
UN3231	SELF-REACTIVE LIQUID TYPE B, TEMPERATURE CONTROLLED*		4.1		FORBIDDEN	FORBIDDEN
UN3233	SELF-REACTIVE LIQUID TYPE C, TEMPERATURE CONTROLLED*		4.1		FORBIDDEN	FORBIDDEN
UN3235	SELF-REACTIVE LIQUID TYPE D, TEMPERATURE CONTROLLED*		4.1		FORBIDDEN	FORBIDDEN
UN3237	SELF-REACTIVE LIQUID TYPE E, TEMPERATURE CONTROLLED*		4.1		FORBIDDEN	FORBIDDEN
UN3239	SELF-REACTIVE LIQUID TYPE F, TEMPERATURE CONTROLLED*		4.1		FORBIDDEN	FORBIDDEN
UN3222	SELF-REACTIVE SOLID TYPE B*		4.1		FORBIDDEN	FORBIDDEN
UN3232	SELF-REACTIVE SOLID TYPE B, TEMPERATURE CONTROLLED*		4.1		FORBIDDEN	FORBIDDEN
UN3234	SELF-REACTIVE SOLID TYPE C, TEMPERATURE CONTROLLED*		4.1		FORBIDDEN	FORBIDDEN
UN3236	SELF-REACTIVE SOLID TYPE D, TEMPERATURE CONTROLLED*		4.1		FORBIDDEN	FORBIDDEN
UN3238	SELF-REACTIVE SOLID TYPE E, TEMPERATURE CONTROLLED*		4.1		FORBIDDEN	FORBIDDEN
UN3240	SELF-REACTIVE SOLID TYPE F, TEMPERATURE CONTROLLED*		4.1		FORBIDDEN	FORBIDDEN
UN1347	SILVER PICRATE, WETTED		4.1		FORBIDDEN	FORBIDDEN
UN2448	SULPHUR, MOLTEN		4.1		FORBIDDEN	FORBIDDEN
UN3255	tert-BUTYL HYPOCHLORITE		4.2	8	FORBIDDEN	FORBIDDEN
UN2546	TITANIUM POWDER, DRY	I	4.2		FORBIDDEN	FORBIDDEN
UN2441	TITANIUM TRICHLORIDE, PYROPHORIC		4.2	8	FORBIDDEN	FORBIDDEN
UN3254	TRIBUTYLPHOSPHANE		4.2		FORBIDDEN	FORBIDDEN
UN1295	TRICHLOROSILANE		4.3	3, 8	FORBIDDEN	FORBIDDEN
UN3133	WATER-REACTIVE SOLID, OXIDIZING, N.O.S.*		4.3	5.1	FORBIDDEN	FORBIDDEN
UN2008	ZIRCONIUM POWDER, DRY	I	4.2		FORBIDDEN	FORBIDDEN
UN1932	ZIRCONIUM SCRAP		4.2		FORBIDDEN	FORBIDDEN

Class 5

5X1 **PACKING INSTRUCTION** **5X1**

The general requirements of Part 4 Chapter 1 must be met.

COMBINATION PACKAGINGS

The following inner packagings are authorized for the indicated mass of solid for passenger and cargo aircraft.

	Passenger Aircraft	***Cargo Aircraft***
For UN 3103, UN 3105	.5 L	1 L
For UN 3107, UN 3109	1 L	2.5 L
For UN 3104, UN 3106	.5 kg	1 kg
For UN 3108, UN 3110	1 kg	2.5 kg

The following outer packagings are permitted for all inner packagings permitted above

Boxes	*Drums*	*Jerricans*
aluminium (4B)	aluminium (IB2)	aluminium (3B2)
fibreboard (4G)	fibre (1G)	steel (3A2)
plywood (4D)	plywood (1D)	plastics (3H2)
reconstituted wood (4F)	steel (1A2)	
expanded plastics (4H1)	plastics (1H2)	
solid plastics (4H2)	other metal (1N2)	
steel (4A)		
wooden (4C1, 4C2)		

Additional Requirements (*AR*):

1. Packaging should comply with the provisions for medium danger (Packing Group II).
2. Cushioning materials shall not be readily combustible.

Particular Packing Requirements

PP 5-1 For UN3103 and 3104 type C Organic peroxides presenting an explosive subsidiary risk must comply with the provisions of Part: 3.2.2 and 3.2.3.

The UN numbers and proper shipping names assigned to 5X1 are:

UN#	ICAO PSN	PG	CLASS	SUB	PASS PI	CARGO PI
UN3103	ORGANIC PEROXIDE TYPE C, LIQUID*	II	5.2		500	502
UN3104	ORGANIC PEROXIDE TYPE C, SOLID*	II	5.2		510	513
UN3105	ORGANIC PEROXIDE TYPE D, LIQUID*	II	5.2		500	502
UN3106	ORGANIC PEROXIDE TYPE D, SOLID*	II	5.2		510	513
UN3107	ORGANIC PEROXIDE TYPE E, LIQUID*	II	5.2		500	502
UN3108	ORGANIC PEROXIDE TYPE E, SOLID*	II	5.2		510	513
UN3109	ORGANIC PEROXIDE TYPE F, LIQUID*	II	5.2		500	502
UN3110	ORGANIC PEROXIDE TYPE F, SOLID*	II	5.2		510	513

5X2	**PACKING INSTRUCTION**	**5X2**

The general requirements of Part 4 Chapter 1 must be met.

COMBINATION PACKAGINGS

The following inner packagings are authorized for the indicated mass of solid for passenger and cargo aircraft.

	Passenger Aircraft			***Cargo Aircraft***		
	PGI	*PGII*	*PGIII*	*PGI*	*PGII*	*PGIII*
Glass or earthenware (IP.1)	1 kg	1 kg	2.5 kg	2.5 kg	2.5 kg	5 kg
Plastics (IP.2)	1 kg	1 kg	2.5 kg	2.5 kg	2.5 kg	5 kg
Metal (IP.3)	1 kg	1 kg	2.5 kg	5 kg	5 kg	5 kg
Plastics bags (IP.5)	1 kg	1 kg	2.5 kg	2.5 kg	2.5 kg	5 kg
Fibre (IP.6)	1 kg	1 kg	2.5 kg	2.5 kg	2.5 kg	5 kg

The following outer packagings are permitted for all inner packagings permitted above

Boxes	*Drums*	*Jerricans*
aluminium (4B) fibreboard (4G) plywood (4D) reconstituted wood (4F) expanded plastics (4H1) solid plastics (4H2) steel (4A) wooden (4C1, 4C2)	aluminium (IB2) fibre (1G) plywood (1D) steel (1A2) plastics (1H2) other metal (1N2)	aluminium (3B2) steel (3A2) plastics (3H2)

SINGLE PACKAGINGS

The following packagings are permitted

Passenger Aircraft			***Cargo Aircraft***			
PGI	*PGII*	*PGIII*	*PGI*	*PGII*	*PGIII*	
Boxes: 4A, 4B, 4C1, 4C2, 4D, 4F, 4G and 4H2	**Boxes:** 4A, 4B, 4C1, 4C2, 4D, 4F, 4G and 4H2	**Boxes:** 4A, 4B, 4C1, 4C2, 4D, 4F, 4G and 4H2	**Boxes:** 4A, 4B, 4C1, 4C2, 4D, 4F, 4G and 4H2	**Boxes:** 4A, 4B, 4C1, 4C2, 4D, 4F, 4G and 4H2	**Boxes:** 4A, 4B, 4C1, 4C2, 4D, 4F, 4G and 4H2	*AR 1*
Drums: lAl, 1A2 1B1, 1B2, 1D, 1G, 1H1, 1H2, 1N1 and 1N2	**Drums:** lAl, 1A2 1B1, 1B2, 1D, 1G, 1H1, 1H2, 1N1 and 1N2	**Drums:** lAl, 1A2 1B1, 1B2, 1D, 1G, 1H1, 1H2, 1N1 and 1N2	**Drums:** lAl, 1A2 1B1, 1B2, 1D, 1G, 1H1, 1H2, 1N1 and 1N2	**Drums:** lAl, 1A2 1B1, 1B2, 1D, 1G, 1H1, 1H2, 1N1 and 1N2	**Drums:** lAl, 1A2 1B1, 1B2, 1D, 1G, 1H1, 1H2, 1N1 and 1N2	*AR1*
Jerricans: 3A1 3A2, 3B1, 3B2 3H1 and 3H2	**Jerricans:** 3A1 3A2, 3B1, 3B2 3H1 and 3H2	**Jerricans:** 3A1 3A2, 3B1,3B2 3H1 and 3H2	**Jerricans:** 3A1 3A2, 3B1,3B2 3H1 and 3H2	**Jerricans:** 3A1 3A2, 3B1, 3B2 3H1 and 3H2	**Jerricans:** 3A1 3A2, 3B1, 3B2 3H1 and 3H2	
Composites (plastic): 6HA1, 6HB1 6HG1, 6HH1, 6HD1, 6H2, 6HB2, 6HC, 6HD2, 6HG2, and 6HH2.	**Composites (plastic):** 6HA1, 6HB1 6HG1, 6HH1, 6HD1, 6H2, 6HB2, 6HC, 6HD2, 6HG2, and 6HH2.	**Composites (plastic):** 6HA1, 6HB1 6HG1, 6HH1, 6HD1, 6H2, 6HB2, 6HC, 6HD2, 6HG2, and 6HH2.	**Composites (plastic):** 6HA1, 6HB16HG1, 6HH1, 6HD1, 6H2, 6HB2, 6HC, 6HD2, 6HG2, and 6HH2.	**Composites (plastic):** 6HA1,6HB1 6HG1, 6HH1,6HD1, 6H2, 6HB2, 6HC, 6HD2, 6HG2, and 6HH2.	**Composites (plastic):** 6HA1, 6HB1 6HG1, 6HH1, 6HD1, 6H2, 6HB2, 6HC, 6HD2, 6HG2, and 6HH2.	

Additional Requirements (AR):

1. Single packagings consisting of boxes (4C1, 4C2, 4D, 4F, 4G and 4H2) and drums (1D and 1G) must be fitted with a water resistant inner bag, plastics film lining or water resistant coating.

Particular Packing requirements

PP 5-3 For UN1458, 1459 and 1483 PGIII fibre inner packagings (IP.6) shall not be used.

NOTE: In AR1 metal boxes (4A and 4B) are not generally siftproof and would need a liner why are they excluded now whereas many plastics boxes because of the moulding process would be siftproof.

The UN numbers and proper shipping names assigned to 5X2 are:

UN#	ICAO PSN	PG	CLASS	SUB	PASS PI	CARGO PI
UN1438	ALUMINIUM NITRATE	III	5.1		516	518
UN1439	AMMONIUM DICHROMATE	II	5.1		508	511
UN1942	AMMONIUM NITRATE with not more more than 0.2% combustible substances, including any organic substance calculated as carbon, to the exclusion of any other added substance.	III	5.1		516	518
UN2072	AMMONIUM NITRATE FERTILIZER, N.O.S.	I	5.1		508	511
UN2072	AMMONIUM NITRATE FERTILIZER, N.O.S.	III	5.1		516	518
UN2072	AMMONIUM NITRATE FERTILIZER, N.O.S.	III	5.1		516	518
UN2067	AMMONIUM NITRATE FERTILIZERS: uniform non-segregating mixtures of ammonium nitrate with added matter which is inorganic and chemically inert towards ammonium nitrate, with not less than 90% ammonium nitrate and not more than 0.2% combustible material ..	III	5.1		516	518
UN2068	AMMONIUM NITRATE FERTILIZERS: uniform non-segregating mixtures of ammonium nitrate with calcium carbonate and/or dolomite, with more than 80% but less than 90% ammonium nitrate and not more than 0.4% total combustible material.	III	5.1		516	518
UN2069	AMMONIUM NITRATE FERTILIZERS: uniform non-segregating mixtures of ammonium nitrate/ammonium sulphate, with more than 45% but not more than 70% ammonium nitrate and not more than 0.4% of total	III	5.1		516	518
UN2070	AMMONIUM NITRATE FERTILIZERS: uniform non-segregating mixtures of nitrogen/phosphate or nitrogen/potash types or complete fertilisers of nitrogen/phosphate/potash type, with more than 70% but	III	5.1		516	518
UN1442	AMMONIUM PERCHLORATE	II	5.1		509	512
UN1444	AMMONIUM PERSULPHATE	III	5.1		516	518
UN2719	BARIUM BROMATE	II	5.1	6.1	508	511
UN1445	BARIUM CHLORATE	II	5.1	6.1	509	512
UN2741	BARIUM HYPOCHLORITE with more than 22% available chlorine	II	5.1	6.1	509	512
UN1446	BARIUM NITRATE	II	5.1	6.1	508	511
UN1447	BARIUM PERCHLORATE	II	5.1	6.1	508	511
UN1448	BARIUM PERMANGANATE	II	5.1	6.1	508	511
UN1449	BARIUM PEROXIDE	II	5.1	6.1	509	512
UN2464	BERYLLIUM NITRATE	II	5.1	6.1	508	511
UN1450	BROMATES, INORGANIC, N.O.S.	II	5.1		508	511
UN1451	CAESIUM NITRATE	III	5.1		516	518
UN1452	CALCIUM CHLORATE	II	5.1		509	512
UN1453	CALCIUM CHLORITE	II	5.1		509	512
UN2208	CALCIUM HYPOCHLORITE MIXTURE, DRY	III	5.1		517	519
UN1748	CALCIUM HYPOCHLORITE, DRY	II	5.1		509	512
UN2880	CALCIUM HYPOCHLORITE, HYDRATED	II	5.1		508	511
UN1454	CALCIUM NITRATE	III	5.1		516	518
UN1455	CALCIUM PERCHLORATE	II	5.1		508	511
UN1456	CALCIUM PERMANGANATE	II	5.1		508	511

UN#	ICAO PSN	PG	CLASS	SUB	PASS PI	CARGO PI
UN1457	CALCIUM PEROXIDE	II	5.1		508	511
UN1458	CHLORATE AND BORATE MIXTURE	II	5.1		509	512
UN1458	CHLORATE AND BORATE MIXTURE	III	5.1		517	519
UN1459	CHLORATE AND MAGNESIUM CHLORIDE MIXTURE	II	5.1		509	512
UN1459	CHLORATE AND MAGNESIUM CHLORIDE MIXTURE	III	5.1		517	519
UN1461	CHLORATES, INORGANIC, N.O.S.	II	5.1		509	512
UN1462	CHLORITES, INORGANIC, N.O.S.	II	5.1		509	512
UN2720	CHROMIUM NITRATE	III	5.1		516	518
UN1463	CHROMIUM TRIOXIDE, ANHYDROUS	II	5.1	8	508	511
UN2721	COPPER CHLORATE	II	5.1		508	511
UN2465	DICHLOROISOCYANURIC ACID, DRY	II	5.1		508	511
UN1465	DIDYMIUM NITRATE	III	5.1		516	518
UN1466	FERRIC NITRATE	III	5.1		516	518
UN1467	GUANIDINE NITRATE	III	5.1		516	518
UN3212	HYPOCHLORITES, INORGANIC, N.O.S.	II	5.1		509	512
UN1872	LEAD DIOXIDE	III	5.1		516	518
UN1469	LEAD NITRATE	II	5.1	6.1	508	511
UN1470	LEAD PERCHLORATE	II	5.1	6.1	508	511
UN1471	LITHIUM HYPOCHLORITE, DRY	II	5.1		509	512
UN2722	LITHIUM NITRATE	III	5.1		516	518
UN1472	LITHIUM PEROXIDE	II	5.1		509	512
UN1473	MAGNESIUM BROMATE	II	5.1		508	511
UN2723	MAGNESIUM CHLORATE	II	5.1		508	511
UN1474	MAGNESIUM NITRATE	III	5.1		516	518
UN1475	MAGNESIUM PERCHLORATE	II	5.1		508	511
UN1476	MAGNESIUM PEROXIDE	II	5.1		508	511
UN2724	MANGANESE NITRATE	III	5.1		516	518
UN2725	NICKEL NITRATE	III	5.1		516	518
UN2726	NICKEL NITRITE	III	5.1		516	518
UN1477	NITRATES, INORGANIC, N.O.S.	II	5.1		508	511
UN1477	NITRATES, INORGANIC, N.O.S.	III	5.1		516	518
UN2627	NITRITES, INORGANIC, N.O.S.	II	5.1		508	511
UN3085	OXIDIZING SOLID, CORROSIVE, N.O.S.*	I	5.1	8	508	511

UN#	ICAO PSN	PG	CLASS	SUB	PASS PI	CARGO PI
UN3085	OXIDIZING SOLID, CORROSIVE, N.O.S.*	III	5.1	8	516	518
UN3085	OXIDIZING SOLID, CORROSIVE, N.O.S.*	III	5.1	8	516	518
UN1479	OXIDIZING SOLID, N.O.S.*	I	5.1		509	512
UN1479	OXIDIZING SOLID, N.O.S.*	III	5.1		516	518
UN1479	OXIDIZING SOLID, N.O.S.*	III	5.1		516	518
UN3087	OXIDIZING SOLID, TOXIC, N.O.S.*	I	5.1	6.1	508	511
UN3087	OXIDIZING SOLID, TOXIC, N.O.S.*	III	5.1	6.1	516	518
UN3087	OXIDIZING SOLID, TOXIC, N.O.S.*	III	5.1	6.1	516	518
UN3217	PERCARBONATES, INORGANIC, N.O.S.	III	5.1		516	518
UN1481	PERCHLORATES, INORGANIC, N.O.S.	II	5.1		508	511
UN1481	PERCHLORATES, INORGANIC, N.O.S.	III	5.1		516	518
UN1482	PERMANGANATES, INORGANIC, N.O.S.	II	5.1		508	511
UN1482	PERMANGANATES, INORGANIC, N.O.S.	III	5.1		516	518
UN1483	PEROXIDES, INORGANIC, N.O.S.	II	5.1		509	512
UN1483	PEROXIDES, INORGANIC, N.O.S.	III	5.1		517	519
UN3215	PERSULPHATES, INORGANIC, N.O.S.	III	5.1		516	518
UN1484	POTASSIUM BROMATE	II	5.1		508	511
UN1485	POTASSIUM CHLORATE	II	5.1		509	512
UN1486	POTASSIUM NITRATE	III	5.1		516	518
UN1487	POTASSIUM NITRATE AND SODIUM NITRITE MIXTURE	II	5.1		508	511
UN1488	POTASSIUM NITRITE	II	5.1		508	511
UN1489	POTASSIUM PERCHLORATE	II	5.1		508	511
UN1490	POTASSIUM PERMANGANATE	II	5.1		508	511
UN1491	POTASSIUM PEROXIDE	I	5.1		FORBIDDEN	512
UN1492	POTASSIUM PERSULPHATE	III	5.1		516	518
UN2466	POTASSIUM SUPEROXIDE	I	5.1		FORBIDDEN	512
UN1493	SILVER NITRATE	II	5.1		508	511
UN1494	SODIUM BROMATE	II	5.1		508	511
UN1495	SODIUM CHLORATE	II	5.1		509	512
UN1496	SODIUM CHLORITE	II	5.1		509	512
UN1498	SODIUM NITRATE	III	5.1		516	518
UN1499	SODIUM NITRATE AND POTASSIUM NITRATE MIXTURE	III	5.1		516	518
UN1500	SODIUM NITRITE	III	5.1	6.1	516	518
UN2467	SODIUM PERCARBONATES	III	5.1		516	518
UN1502	SODIUM PERCHLORATE	II	5.1		508	511
UN1503	SODIUM PERMANGANATE	II	5.1		508	511

UN#	ICAO PSN	PG	CLASS	SUB	PASS PI	CARGO PI
UN1504	SODIUM PEROXIDE	I	5.1		FORBIDDEN	512
UN3247	SODIUM PEROXOBORATE, ANHYDROUS	II	5.1		508	511
UN1505	SODIUM PERSULPHATE	III	5.1		516	518
UN2547	SODIUM SUPEROXIDE	I	5.1		FORBIDDEN	512
UN1506	STRONTIUM CHLORATE	II	5.1		509	512
UN1507	STRONTIUM NITRATE	III	5.1		516	518
UN1508	STRONTIUM PERCHLORATE	II	5.1		508	511
UN1509	STRONTIUM PEROXIDE	II	5.1		508	511
UN2573	THALLIUM CHLORATE	II	5.1	6.1	508	511
UN2468	TRICHLOROISOCYANURIC ACID, DRY	II	5.1		508	511
UN1511	UREA HYDROGEN PEROXIDE	III	5.1	8	517	519
UN1512	ZINC AMMONIUM NITRITE	II	5.1		508	511
UN2469	ZINC BROMATE	III	5.1		516	518
UN1513	ZINC CHLORATE	II	5.1		509	512
UN1514	ZINC NITRATE	II	5.1		508	511
UN1515	ZINC PERMANGANATE	II	5.1		508	511
UN1516	ZINC PEROXIDE	II	5.1		508	511
UN2728	ZIRCONIUM NITRATE	III	5.1		516	518

5X3 PACKING INSTRUCTION 5X3

The general requirements of Part 4 Chapter 1 must be met.

COMBINATION PACKAGINGS

The following inner packagings are authorized for the indicated volume of liquid for passenger and cargo aircraft.

	Passenger Aircraft			***Cargo Aircraft***		
	PGI	*PGII*	*PGIII*	*PGI*	*PGII*	*PGIII*
Glass or earthenware (IP.1)	Prohibited	1 L	2.5 L	2.5 L	5 L	5 L
Plastics (IP.2)	Prohibited	1 L	2.5 L	2.5 L	5 L	5 L
Metal (IP.3)	Prohibited	1 L	2.5 L	2.5 L	5 L	5 L

The following outer packagings are permitted for all inner packagings permitted above

Boxes	*Drums*	*Jerricans*
aluminium (4B)	aluminium (IB2)	aluminium (3B2)
fibreboard (4G)	fibre (1G)	steel (3A2)
plywood (4D)	plywood (1D)	plastics (3H2)
reconstituted wood (4F)	steel (1A2)	
expanded plastics (4H1)	plastics (1H2)	
solid plastics (4H2)	other metal (1N2)	
steel (4A)		
wooden (4C1, 4C2)		

SINGLE PACKAGINGS

The following packagings are permitted

Passenger Aircraft			***Cargo Aircraft***		
PGI	*PGII*	*PGIII*	*PGI*	*PGII*	*PGIII*
					Drums: lAl, 1B1, 1H1 and 1N1
					Jerricans: 3A1 3B1 and 3H1
					Composites (plastic): 6HA1, 6HB1 6HG1, 6HH1, 6HD1, 6H2, 6HB2, 6HC, 6HD2, 6HG2, and 6HH2.

Particular Packing requirements

PP 5-2 For UN2014 minimum ullage shall be 10%

The UN numbers and proper shipping names assigned to 5X3 are:

UN#	ICAO PSN	PG	CLASS	SUB	PASS PI	CARGO PI
UN3213	BROMATES, INORGANIC, AQUEOUS SOLUTION, N.O.S.*	II	5.1		503	505
UN3213	BROMATES, INORGANIC, AQUEOUS SOLUTION, N.O.S.*	III	5.1		514	515
UN2429	CALCIUM CHLORATE, AQUEOUS SOLUTION	II	5.1		501	506
UN2429	CALCIUM CHLORATE, AQUEOUS SOLUTION	III	5.1		506	507
UN3210	CHLORATES, INORGANIC, AQUEOUS SOLUTION, N.O.S.*	II	5.1		501	506
UN3210	CHLORATES, INORGANIC, AQUEOUS SOLUTION, N.O.S.*	III	5.1		506	507
UN3149	HYDROGEN PEROXIDE AND PEROXYACETIC ACID MIXTURE with acid(s), water and not more than 5% peroxyacetic acid, stabilixed	II	5.1	8	501	506
UN2984	HYDROGEN PEROXIDE, AQUEOUS SOLUTION with not less than 8% but less than 20% hydrogen peroxide (stabilized as necessary)	III	5.1		514	515
UN2014	HYDROGEN PEROXIDE, AQUEOUS SOLUTION with not less than 20% but not more than 40% hydrogen peroxide (stabilized as necessary)	II	5.1	8	501	506
UN2495	IODINE PENTAFLUORIDE	I	5.1	6.1, 8	FORBIDDEN	501
UN3218	NITRATES, INORGANIC, AQUEOUS SOLUTION, N.O.S.	II	5.1		503	505
UN3218	NITRATES, INORGANIC, AQUEOUS SOLUTION, N.O.S.	III	5.1		514	515
UN3219	NITRITES, INORGANIC, AQUEOUS SOLUTION, N.O.S.	II	5.1		503	505
UN3219	NITRITES, INORGANIC, AQUEOUS SOLUTION, N.O.S.	III	5.1		514	515
UN3098	OXIDIZING LIQUID, CORROSIVE, N.O.S.*	I	5.1	8	FORBIDDEN	501
UN3098	OXIDIZING LIQUID, CORROSIVE, N.O.S.*	III	5.1	8	514	515
UN3098	OXIDIZING LIQUID, CORROSIVE, N.O.S.*	III	5.1	8	514	515
UN3139	OXIDIZING LIQUID, N.O.S.*	I	5.1		FORBIDDEN	501
UN3139	OXIDIZING LIQUID, N.O.S.*	III	5.1		514	515
UN3139	OXIDIZING LIQUID, N.O.S.*	III	5.1		514	515
UN3099	OXIDIZING LIQUID, TOXIC, N.O.S.*	I	5.1	6.1	FORBIDDEN	501
UN3099	OXIDIZING LIQUID, TOXIC, N.O.S.*	III	5.1	6.1	514	515
UN3099	OXIDIZING LIQUID, TOXIC, N.O.S.*	III	5.1	6.1	514	515
UN3211	PERCHLORATES, INORGANIC, AQUEOUS SOLUTION, N.O.S.	II	5.1		501	506
UN3211	PERCHLORATES, INORGANIC, AQUEOUS SOLUTION, N.O.S.	III	5.1		506	507
UN1873	PERCHLORIC ACID	I	5.1	8	FORBIDDEN	501
UN3214	PERMANGANATES, INORGANIC, AQUEOUS SOLUTION, N.O.S.	II	5.1		503	505
UN3216	PERSULPHATES, INORGANIC, ACQUEOUS SOLUTION, N.O.S.	III	5.1		514	515
UN2427	POTASSIUM CHLORATE, AQUEOUS SOLUTION	II	5.1		503	505
UN2427	POTASSIUM CHLORATE, AQUEOUS SOLUTION	III	5.1		514	515
UN2428	SODIUM CHLORATE, AQUEOUS SOLUTION	II	5.1		503	505
UN2428	SODIUM CHLORATE, AQUEOUS SOLUTION	III	5.1		514	515

Y5XX **PACKING INSTRUCTION 5X2**
Y5XX

The general packing requirements of Part 4, Chapter 1 must be met. Substances must be compatible with their packaging as required by 4;1.1.3.

COMBINATION PACKAGINGS:

The following inner packagings are authorized for passenger and cargo aircraft.
When a packaging is not permitted the word "prohibited" is indicated.

	Passenger Aircraft and Cargo Aircraft		
	PG I	*PG II*	*PG III*
Glass or earthenware (IP.1)	Prohibited	.5 KG	1 kg
Plastics (IP.2)	Prohibited	.5 kg	1 kg
Metal (IP.3)	Prohibited	.5 kg	1 kg
Plastics Bag (IP.5)	Prohibited	.5 kg	1 kg
Fibre (IP.6)	Prohibited	.5 kg	1 kg

The following outer packagings are authorized for all of the inner packagings permitted above:

Boxes	*Drums*	*Jerricans*
aluminium expanded plastics fibreboard plywood reconstituted wood solid plastics steel wooden	aluminium fibre plastics plywood steel other metal	aluminium plastics steel

Particular Packing requirements

PP 5-3 For UN1458, 1459 and 1483 PGIII fibre inner packagings (IP.6) shall not be used.

The UN numbers and proper shipping names assigned to Y5XX are:

UN#	ICAO PSN	PG	CLASS	SUB	LQ PI
UN1438	ALUMINIUM NITRATE	III	5.1		Y516
UN1439	AMMONIUM DICHROMATE	II	5.1		Y508
UN1942	AMMONIUM NITRATE with not more more than 0.2% combustible substances, including any organic substance calculated as carbon, to the exclusion of any other added substance.	III	5.1		Y516
UN2072	AMMONIUM NITRATE FERTILIZER, N.O.S.	III	5.1		Y516
UN2072	AMMONIUM NITRATE FERTILIZER, N.O.S.	III	5.1		Y516
UN2067	AMMONIUM NITRATE FERTILIZERS: uniform non-segregating mixtures of ammonium nitrate with added matter which is inorganic and chemically inert towards ammonium nitrate, with not less than 90% ammonium nitrate and not more than 0.2% combustible material ..	III	5.1		Y516
UN2068	AMMONIUM NITRATE FERTILIZERS: uniform non-segregating mixtures of ammonium nitrate with calcium carbonate and/or dolomite, with more than 80% but less than 90% ammonium nitrate and not more	III	5.1		Y516
UN2069	AMMONIUM NITRATE FERTILIZERS: uniform non-segregating mixtures of ammonium nitrate/ammonium sulphate, with more than 45% but not more than 70% ammonium nitrate and not more than 0.4% of total	III	5.1		Y516
UN2070	AMMONIUM NITRATE FERTILIZERS: uniform non-segregating mixtures of nitrogen/phosphate or nitrogen/potash types or complete fertilisers of nitrogen/phosphate/potash type, with more than 70% but less than 90% ammonium nitrate ...	III	5.1		Y516
UN1442	AMMONIUM PERCHLORATE	II	5.1		Y509
UN1444	AMMONIUM PERSULPHATE	III	5.1		Y516
UN2719	BARIUM BROMATE	II	5.1	6.1	Y508
UN1445	BARIUM CHLORATE	II	5.1	6.1	Y509
UN2741	BARIUM HYPOCHLORITE with more than 22% available chlorine	II	5.1	6.1	Y509
UN1446	BARIUM NITRATE	II	5.1	6.1	Y508
UN1447	BARIUM PERCHLORATE	II	5.1	6.1	Y508
UN1448	BARIUM PERMANGANATE	II	5.1	6.1	Y508
UN1449	BARIUM PEROXIDE	II	5.1	6.1	Y509
UN2464	BERYLLIUM NITRATE	II	5.1	6.1	Y508
UN1450	BROMATES, INORGANIC, N.O.S.	II	5.1		Y508
UN1451	CAESIUM NITRATE	III	5.1		Y516
UN1452	CALCIUM CHLORATE	II	5.1		Y509
UN1453	CALCIUM CHLORITE	II	5.1		Y509
UN2208	CALCIUM HYPOCHLORITE MIXTURE, DRY	III	5.1		Y517
UN1748	CALCIUM HYPOCHLORITE, DRY	II	5.1		Y509
UN2880	CALCIUM HYPOCHLORITE, HYDRATED	II	5.1		Y508
UN1454	CALCIUM NITRATE	III	5.1		Y516
UN1455	CALCIUM PERCHLORATE	II	5.1		Y508
UN1456	CALCIUM PERMANGANATE	II	5.1		Y508
UN1457	CALCIUM PEROXIDE	II	5.1		Y508

UN#	ICAO PSN	PG	CLASS	SUB	LQ PI
UN1458	CHLORATE AND BORATE MIXTURE	II	5.1		Y509
UN1458	CHLORATE AND BORATE MIXTURE	III	5.1		Y517
UN1459	CHLORATE AND MAGNESIUM CHLORIDE MIXTURE	II	5.1		Y509
UN1459	CHLORATE AND MAGNESIUM CHLORIDE MIXTURE	III	5.1		Y517
UN1461	CHLORATES, INORGANIC, N.O.S.	II	5.1		Y509
UN1462	CHLORITES, INORGANIC, N.O.S.	II	5.1		Y509
UN2720	CHROMIUM NITRATE	III	5.1		Y516
UN1463	CHROMIUM TRIOXIDE, ANHYDROUS	II	5.1	8	Y508
UN2721	COPPER CHLORATE	II	5.1		Y508
UN2465	DICHLOROISOCYANURIC ACID, DRY	II	5.1		Y508
UN1465	DIDYMIUM NITRATE	III	5.1		Y516
UN1467	GUANIDINE NITRATE	III	5.1		Y516
UN3212	HYPOCHLORITES, INORGANIC, N.O.S.	II	5.1		Y509
UN1872	LEAD DIOXIDE	III	5.1		Y516
UN1469	LEAD NITRATE	II	5.1	6.1	Y508
UN1470	LEAD PERCHLORATE	II	5.1	6.1	Y508
UN1471	LITHIUM HYPOCHLORITE, DRY	II	5.1		Y509
UN2722	LITHIUM NITRATE	III	5.1		Y516
UN1472	LITHIUM PEROXIDE	II	5.1		Y509
UN1473	MAGNESIUM BROMATE	II	5.1		Y508
UN2723	MAGNESIUM CHLORATE	II	5.1		Y508
UN1474	MAGNESIUM NITRATE	III	5.1		Y516
UN1475	MAGNESIUM PERCHLORATE	II	5.1		Y508
UN1476	MAGNESIUM PEROXIDE	II	5.1		Y508
UN2724	MANGANESE NITRATE	III	5.1		Y516
UN2725	NICKEL NITRATE	III	5.1		Y516
UN2726	NICKEL NITRITE	III	5.1		Y516
UN1477	NITRATES, INORGANIC, N.O.S.	II	5.1		Y508
UN1477	NITRATES, INORGANIC, N.O.S.	III	5.1		Y516
UN2627	NITRITES, INORGANIC, N.O.S.	II	5.1		Y508
UN3085	OXIDIZING SOLID, CORROSIVE, N.O.S.*	III	5.1	8	Y516
UN3085	OXIDIZING SOLID, CORROSIVE, N.O.S.*	III	5.1	8	Y516
UN1479	OXIDIZING SOLID, N.O.S.*	III	5.1		Y516
UN1479	OXIDIZING SOLID, N.O.S.*	III	5.1		Y516
UN3087	OXIDIZING SOLID, TOXIC, N.O.S.*	III	5.1	6.1	Y516
UN3087	OXIDIZING SOLID, TOXIC, N.O.S.*	III	5.1	6.1	Y516

UN#	ICAO PSN	PG	CLASS	SUB	LQ PI
UN1481	PERCHLORATES, INORGANIC, N.O.S.	II	5.1		Y508
UN1481	PERCHLORATES, INORGANIC, N.O.S.	III	5.1		Y516
UN1482	PERMANGANATES, INORGANIC, N.O.S.	II	5.1		Y508
UN1482	PERMANGANATES, INORGANIC, N.O.S.	III	5.1		Y516
UN1483	PEROXIDES, INORGANIC, N.O.S.	II	5.1		Y509
UN1483	PEROXIDES, INORGANIC, N.O.S.	III	5.1		Y517
UN3215	PERSULPHATES, INORGANIC, N.O.S.	III	5.1		Y516
UN1484	POTASSIUM BROMATE	II	5.1		Y508
UN1485	POTASSIUM CHLORATE	II	5.1		Y509
UN1486	POTASSIUM NITRATE	III	5.1		Y516
UN1487	POTASSIUM NITRATE AND SODIUM NITRITE MIXTURE	II	5.1		Y508
UN1488	POTASSIUM NITRITE	II	5.1		Y508
UN1489	POTASSIUM PERCHLORATE	II	5.1		Y508
UN1490	POTASSIUM PERMANGANATE	II	5.1		Y508
UN1492	POTASSIUM PERSULPHATE	III	5.1		Y516
UN1493	SILVER NITRATE	II	5.1		Y508
UN1494	SODIUM BROMATE	II	5.1		Y508
UN1495	SODIUM CHLORATE	II	5.1		Y509
UN1496	SODIUM CHLORITE	II	5.1		Y509
UN1498	SODIUM NITRATE	III	5.1		Y516
UN1499	SODIUM NITRATE AND POTASSIUM NITRATE MIXTURE	III	5.1		Y516
UN1500	SODIUM NITRITE	III	5.1	6.1	Y516
UN1502	SODIUM PERCHLORATE	II	5.1		Y508
UN1503	SODIUM PERMANGANATE	II	5.1		Y508
UN3247	SODIUM PEROXOBORATE, ANHYDROUS	II	5.1		Y508
UN1505	SODIUM PERSULPHATE	III	5.1		Y516
UN1506	STRONTIUM CHLORATE	II	5.1		Y509
UN1507	STRONTIUM NITRATE	III	5.1		Y516
UN1508	STRONTIUM PERCHLORATE	II	5.1		Y508
UN1509	STRONTIUM PEROXIDE	II	5.1		Y508
UN2573	THALLIUM CHLORATE	II	5.1	6.1	Y508
UN2468	TRICHLOROISOCYANURIC ACID, DRY	II	5.1		Y508
UN1511	UREA HYDROGEN PEROXIDE	III	5.1	8	Y517
UN1512	ZINC AMMONIUM NITRITE	II	5.1		Y508
UN2469	ZINC BROMATE	III	5.1		Y516
UN1513	ZINC CHLORATE	II	5.1		Y509

UN#	ICAO PSN	PG	CLASS	SUB	LQ PI
UN1514	ZINC NITRATE	II	5.1		Y508
UN1515	ZINC PERMANGANATE	II	5.1		Y508
UN1516	ZINC PEROXIDE	II	5.1		Y508
UN2728	ZIRCONIUM NITRATE	III	5.1		Y516

Y5XY **PACKING INSTRUCTION** **Y5XY**

The general packing requirements of Part 4, Chapter 1 must be met. Substances must be compatible with their packaging as required by 4;1.1.3.

COMBINATION PACKAGINGS:

The following inner packagings are authorized for passenger and cargo aircraft.
When a packaging is not permitted the word "prohibited" is indicated.

	Passenger Aircraft and cargo aircraft			*Passenger Aircraft and Cargo Aircraft*	
	PG I	*PG II*	*PG II*	*PG III*	*PG III*
		Solids	*Liquids*	*Solids*	*Liquids*
Glass or earthenware (IP.1)	Prohibited	.1 KG	.1 L	.5 kg	.5 L
Plastics (IP.2)	Prohibited	.1 kg	.1 L	.5 kg	.5 L
Metal (IP.3)	Prohibited	.1 kg	.1 L	.5 kg	.5 L

The following outer packagings are authorized for all of the inner packagings permitted above:

Boxes	*Drums*	*Jerricans*
aluminium expanded plastics fibreboard plywood reconstituted wood solid plastics steel wooden	aluminium fibre plastics plywood steel other metal	aluminium plastics steel

Particular Packing requirements

PP 5-2 For UN2014 minimum ullage shall be 10%

The UN numbers and proper shipping names assigned to Y5XY are:

UN#	ICAO PSN	PG	CLASS	SUB	LQ PI
UN3213	BROMATES, INORGANIC, AQUEOUS SOLUTION, N.O.S.*	II	5.1		Y503
UN3213	BROMATES, INORGANIC, AQUEOUS SOLUTION, N.O.S.*	III	5.1		Y514
UN2429	CALCIUM CHLORATE, AQUEOUS SOLUTION	II	5.1		Y501
UN2429	CALCIUM CHLORATE, AQUEOUS SOLUTION	III	5.1		Y506
UN3210	CHLORATES, INORGANIC, AQUEOUS SOLUTION, N.O.S.*	II	5.1		Y501
UN3210	CHLORATES, INORGANIC, AQUEOUS SOLUTION, N.O.S.*	III	5.1		Y506
UN3149	HYDROGEN PEROXIDE AND PEROXYACETIC ACID MIXTURE with acid(s), water and not more than 5% peroxyacetic acid, stabilixed	II	5.1	8	Y501
UN2984	HYDROGEN PEROXIDE, AQUEOUS SOLUTION with not less than 8% but less than 20% hydrogen peroxide (stabilized as necessary)	III	5.1		Y514
UN2014	HYDROGEN PEROXIDE, AQUEOUS SOLUTION with not less than 20% but not more than 40% hydrogen peroxide (stabilized as necessary)	II	5.1	8	Y501
UN3218	NITRATES, INORGANIC, AQUEOUS SOLUTION, N.O.S.	II	5.1		Y503
UN3218	NITRATES, INORGANIC, AQUEOUS SOLUTION, N.O.S.	III	5.1		Y514
UN3219	NITRITES, INORGANIC, AQUEOUS SOLUTION, N.O.S.	II	5.1		Y503
UN3219	NITRITES, INORGANIC, AQUEOUS SOLUTION, N.O.S.	III	5.1		Y514
UN3098	OXIDIZING LIQUID, CORROSIVE, N.O.S.*	III	5.1	8	Y514
UN3098	OXIDIZING LIQUID, CORROSIVE, N.O.S.*	III	5.1	8	Y514
UN3139	OXIDIZING LIQUID, N.O.S.*	III	5.1		Y514
UN3139	OXIDIZING LIQUID, N.O.S.*	III	5.1		Y514
UN3099	OXIDIZING LIQUID, TOXIC, N.O.S.*	III	5.1	6.1	Y514
UN3099	OXIDIZING LIQUID, TOXIC, N.O.S.*	III	5.1	6.1	Y514
UN3211	PERCHLORATES, INORGANIC, AQUEOUS SOLUTION, N.O.S.	II	5.1		Y501
UN3211	PERCHLORATES, INORGANIC, AQUEOUS SOLUTION, N.O.S.	III	5.1		Y506
UN3214	PERMANGANATES, INORGANIC, AQUEOUS SOLUTION, N.O.S.	II	5.1		Y503
UN3216	PERSULPHATES, INORGANIC, ACQUEOUS SOLUTION, N.O.S.	III	5.1		Y514
UN2427	POTASSIUM CHLORATE, AQUEOUS SOLUTION	II	5.1		Y503
UN2427	POTASSIUM CHLORATE, AQUEOUS SOLUTION	III	5.1		Y514
UN2428	SODIUM CHLORATE, AQUEOUS SOLUTION	II	5.1		Y503
UN2428	SODIUM CHLORATE, AQUEOUS SOLUTION	III	5.1		Y514

523 PACKING INSTRUCTION 523 523

The general packing requirements of Part 4, Chapter 1, except for 1.1.12, must be met.

Oxygen generator, chemical containing oxidizing substances, including when fitted in associated equipment, e.g. passenger ice units (PSUs), portable breathing equipment (PBE) etc., must meet all the following conditions:

a) the generator, without its packaging, must be capable of withstanding a 1.8 m drop test onto a rigid, non-resilient, flat and horizontal surface, in the position most likely to cause actuation, without loss of its contents and without actuation. For PBE, which are in a vacuum-sealed bag as part of their containment system, this test may be conducted on the PBE in the vacuum-sealed bag;

b) when a generator is equipped with an actuating device, it must have at least two positive means of preventing unintentional actuation. For PBE, which are in a vacuum-sealed bag as part of their containment system, the vacuum-sealed bag may be considered the second positive means of preventing unintentional actuation;

c) the generator(s) must be transported in a package which will meet the following requirements when one generator in the package is actuated:

1) other generators in the package will not be actuated;
2) packaging material will not ignite; and
3) the outside surface temperature of the completed package will not exceed 100°C;

(Note. - To enable test c) 1), 2) and 3) to be conducted on PBE, it is acceptable to break the vacuum-sealed bag to actuate the generator fore placing it in the package.)

d) generator(s) must be tightly packed in steel drums (lA2), aluminium drums (1B2), plywood drums (1D), fibre drums (IG), plastic drums (1H2), steel jerricans (3A2), plastic jerricans (3H2), metal boxes (4A, 4B), wooden boxes (4C 1, 4C2), plywood boxes (4D), reconstituted wood boxes (4F), fibreboard boxes (4G) or solid plastic boxes (4H2).

The UN numbers and proper shipping names assigned to 523 are:

UN#	ICAO PSN	PG	CLASS	SUB	PASS PI	CARGO PI
UN3356	OXYGEN GENERATOR, CHEMICAL (including when contained in associated equipment, e.g. passenger service units (PSUs), portable breathing equipment (PBE), etc.)	II	5.1		FORBIDDEN	523

Particular packing requirements for Class 5.

5X1 Organic peroxides
PP 5-1 For UN3103 and 3104 type C Organic peroxides presenting an explosive subsidiary risk must comply with the provisions of Part: 3.2.2 and 3.2.3.
PP 5-3 For UN1458, 1459 and 1483 PGIII fibre inner packagings (IP.6) shall not be used**.**

5X3
PP 5-2 For UN2014 minimum ullage shall be 10%

Y5XX
PP 5-3 For UN1458, 1459 and 1483 PGIII fibre inner packagings (IP.6) shall not be used**.**

Y5XY
PP 5-2 For UN2014 minimum ullage shall be 10%

The UN numbers and proper shipping names not allocated to a class 5 packing instruction are:

UN#	ICAO PSN	PG	CLASS	SUB	PASS PI	CARGO PI
UN2426	AMMONIUM NITRATE, LIQUID (hot concentrated solution)		5.1		FORBIDDEN	FORBIDDEN
UN1745	BROMINE PENTAFLUORIDE		5.1	6.1, 8	FORBIDDEN	FORBIDDEN
UN1746	BROMINE TRIFLUORIDE		5.1	6.1, 8	FORBIDDEN	FORBIDDEN
UN2626	CHLORIC ACID, AQUEOUS SOLUTION with not more than 10% chloric acid		5.1		FORBIDDEN	FORBIDDEN
UN2014	HYDROGEN PEROXIDE, AQUEOUS SOLUTION with more than 40% but not more than 60% hydrogen peroxide (stabilized as necessary)		5.1	8	FORBIDDEN	FORBIDDEN
UN2015	HYDROGEN PEROXIDE, STABILIZED		5.1	8	FORBIDDEN	FORBIDDEN
UN3101	ORGANIC PEROXIDE TYPE B, LIQUID*		5.2		FORBIDDEN	FORBIDDEN
UN3111	ORGANIC PEROXIDE TYPE B, LIQUID, TEMPERATURE CONTROLLED*		5.2		FORBIDDEN	FORBIDDEN
UN3102	ORGANIC PEROXIDE TYPE B, SOLID*		5.2		FORBIDDEN	FORBIDDEN
UN3112	ORGANIC PEROXIDE TYPE B, SOLID, TEMPERATURE CONTROLLED*		5.2		FORBIDDEN	FORBIDDEN
UN3113	ORGANIC PEROXIDE TYPE C, LIQUID, TEMPERATURE CONTROLLED*		5.2		FORBIDDEN	FORBIDDEN
UN3114	ORGANIC PEROXIDE TYPE C, SOLID, TEMPERATURE CONTROLLED*		5.2		FORBIDDEN	FORBIDDEN
UN3115	ORGANIC PEROXIDE TYPE D, LIQUID, TEMPERATURE CONTROLLED*		5.2		FORBIDDEN	FORBIDDEN
UN3116	ORGANIC PEROXIDE TYPE D, SOLID, TEMPERATURE CONTROLLED*		5.2		FORBIDDEN	FORBIDDEN
UN3117	ORGANIC PEROXIDE TYPE E, LIQUID, TEMPERATURE CONTROLLED*		5.2		FORBIDDEN	FORBIDDEN
UN3118	ORGANIC PEROXIDE TYPE E, SOLID, TEMPERATURE CONTROLLED*		5.2		FORBIDDEN	FORBIDDEN
UN3119	ORGANIC PEROXIDE TYPE F, LIQUID, TEMPERATURE CONTROLLED*		5.2		FORBIDDEN	FORBIDDEN
UN3120	ORGANIC PEROXIDE TYPE F, SOLID, TEMPERATURE CONTROLLED*		5.2		FORBIDDEN	FORBIDDEN
UN3137	OXIDIZING SOLID, FLAMMABLE, N.O.S.*		5.1	4.1	FORBIDDEN	FORBIDDEN
UN3100	OXIDIZING SOLID, SELF-HEATING, N.O.S.*		5.1	4.2	FORBIDDEN	FORBIDDEN
UN3121	OXIDIZING SOLID, WATER-REACTIVE, N.O.S.*		5.1	4.3	FORBIDDEN	FORBIDDEN
UN1510	TETRANITROMETHANE		5.1	6.1	FORBIDDEN	FORBIDDEN

Class 6

600	PACKING INSTRUCTION 600	600

Ammunition, tear-producing or toxic may be carried provided it is without ignition elements, bursting charges, detonating fuses or other explosive components and when packed according to the general packing requirements of Part 4, Chapter 1 and in steel (4A), aluminium (4B) or wooden (4C1, 4C2) boxes, steel drums (1A2) or aluminium drums (1B2) or aluminium jerricans (3B2).

Notes: No changes.
The proper shipping names and UN numbers assigned to PI 600 are:

UN#	ICAO PSN	PG	CLASS	SUB	PASS PI	CARGO PI
UN2016	AMMUNITION, TOXIC, NON-EXPLOSIVE	II	6.1		FORBIDDEN	600
UN2017	AMMUNITION, TEAR PRODUCING, NON-EXPLOSIVE	II	6.1	8	FORBIDDEN	600

601	PACKING INSTRUCTION 601	601

Tear gas grenades or candles may be carried when packed according to the general packing requirements of Part 4, Chapter 1 and in steel (4A), aluminium (4B) or metal strapped wooden (4C1, 4C2) boxes, steel drums (1A2), aluminium drums (1B2) or aluminium jerricans (3B2). Unless functioning elements are so packed that they cannot accidentally function, elements must not be assembled in grenades or devices, but must be packed in a separate compartment or in a separate wooden (4C1, 4C2) box and so cushioned that they cannot come into contact with each other or with the walls of the packaging during transport. Not more than 24 grenades and 24 functioning devices per package are authorized.

Notes: No change.

The proper shipping names and UN numbers assigned to PI 601 are:

UN#	ICAO PSN	PG	CLASS	SUB	PASS PI	CARGO PI
UN1700	TEAR GAS CANDLES	II	6.1	4.1	FORBIDDEN	601

602	PACKING INSTRUCTION 602	602
The packing instruction working group did not address this because it will be updated according to the 13th revised ed. of the UN Model Regulations.		

Notes: No change.

The proper shipping names and UN numbers assigned to PI 602 are:

UN#	ICAO PSN	PG	CLASS	SUB	PASS PI	CARGO PI
UN2814	INFECTIOUS SUBSTANCE, AFFECTING HUMANS		6.1		602	602
UN2900	INFECTIOUS SUBSTANCE, AFFECTING ANIMALS		6.1		602	602

6X1	PACKING INSTRUCTION 6X1	6X1

The general packing requirements of Part 4, Chapter 1 must be met.

COMBINATION PACKAGINGS:

INNER:

The following inner packagings are authorized for the indicated quantities of liquid for passenger or cargo aircraft unless otherwise indicated.

	Passenger Aircraft			*Cargo Aircraft*			
	PG I	***PG II***	***PG III***	***PG I***	***PG II***	***PG III***	
Glass or earthenware (IP.1)	***0.5 L***	***1 L***	***2.5 L***	***1 L***	***2.5 L***	***5 L***	
Plastic (IP.2)	***0.5 L***	***1 L***	***2.5 L***	***1 L***	***2.5 L***	***5 L***	
Metal (IP.3, IP.3A)	*1 L*	***2.5 L***	*5 L*	***2.5 L***	*5 L*	*10 L*	

OUTER:

	Boxes	***Drums***	***Jerricans***	
	aluminium (4B) fibreboard (4G) plywood (4D) reconstituted wood (4F) expanded plastic (4H1) solid plastic (4H2) steel (4A) wooden (4C1, 4C2)	aluminium (1B2) fibre (1G) plywood (1D) steel (1A2) plastic (1H2) other metal (1N2)	aluminium (3B2) steel (3A2) plastic (3H2)	

SINGLE PACKAGINGS:

	Passenger Aircraft			*Cargo Aircraft*			
	PG I	PG II	PG III	PG I	PG II	PG III	
	FORBIDDEN	**FORBIDDEN**	**Drums:** 1A1, 1B1, 1H1, and 1N1	**Drums:** 1A1, 1B1, and 1N1	**Drums:** 1A1, 1B1, 1H1, 1N1	**Drums:** 1A1, 1B1, 1H1, and 1N1	
			Jerricans: 3A1, 3B1, and 3H1	**Jerricans:** 3A1 and 3B1	**Jerricans:** 3A1, 3B1,and 3H1	**Jerricans:** 3A1, 3B1 and 3H1	
			Composites (plastic): 6HA1, 6HB1, 6HG1, 6HH1, 6HD1, 6H2, 6HB2, 6HC, 6HD2, 6HG2, and 6HH2	**Composites (plastic):** 6HA1, 6HB1, 6HG1, 6HH1, 6HD1, 6H2, 6HB2, 6HC, 6HD2, 6HG2, and 6HH2.	**Composites (plastic):** 6HA1, 6HB1, 6HG1, 6HH1, 6HD1, 6H2, 6HB2, 6HC, 6HD2, 6HG2, and 6HH2.	**Composites (plastic):** 6HA1, 6HB1, 6HG1, 6HH1, 6HD1, 6H2, 6HB2, 6HC, 6HD2, 6HG2, and 6HH2	
			Cylinders: As permitted in Packing Instruction 200	**Cylinders:** As permitted in Packing Instruction 200	**Cylinders:** As permitted in Packing Instruction 200	**Cylinders:** As permitted in Packing Instruction 200	

Particular Packaging Requirements:

PPR6X1-1 For UN [~~1541~~], 1737, 1738, 1750, 2574 and 3071, glass or earthenware inner packagings must be packed with absorbent material in tightly closed metal or rigid plastic receptacles before packing in outer packaging in sufficient quantity to absorb the entire liquid content.

PPR6X1-2 For UN 2661, 2668, 2669 and 3071, plastic inner packagings must be packed in tightly closed metal or rigid plastic receptacles before packing in outer packagings.

PPR6X1-3 For UN1593, 1702, 1710, 1846, 1888, 1897, and 2831, pure aluminium or aluminium alloys are permitted only for halogenated hydrocarbons that will not react with aluminium.

PPR6X1-4 For UN [~~1541~~], 1638, 1737, 1738, 1750, 1916, 1935 and 2024, aluminum inner or single packagings are not permitted.

PPR6X1-5 For UN 2574, plastic inner or single packagings are not permitted.

PPR6X1-6 For UN 1888, inner quantity limits must not exceed those authorized for PG II.

Notes: This instruction combines existing packing instructions 603, 604, 609, 611, 617, 618, 620, and the addition of substances UN1593, 1638, 1702, 1710, 1737, 1738, 1750, 1835, 1846, 1888, 1897, 1916, 1935, 2024, 2574, 2788, 2831, and 3071 (from PI 605, 610, and 612).

- PPR6X1-1 is the former PPR13
- PPR6X1-2 is the former PPR2
- PPR6X1-3 is the former PPR3

PPR6X1-4, PPR6X1-5, and PPR6X1-6 are quantity and packaging type restrictions from the existing packaging instructions.

-It is proposed that a PPR 6X1-2 be added to UN 2661, Hexachloroacetone, UN 2668, Chloroacetnitrile and UN2669 Chlorocresols, solution. UN 2661 and 2669 evolve extremely toxic phosgene gas when heated and UN 2668 evolves extremely toxic cyanide gas when heated.
Inner package quantity limits were not changed (with the exception of the UN numbers suggested below).
- Inner packaging IP8 removed, now included in IP1 definition.
Added outer packagings to harmonize with UN Model Regulations: Boxes, Expanded Plastic (4H1), Drums other Metal (1N2).
Added single packagings to harmonize with UN Model Regulations: Drums 1N1, Jerricans 3B1.
- Added specification codes for composite plastic single packagings.
We have proposed increases in quantity limits for several toxic liquids. The following UN numbers are currently assigned inner packaging quantity limits that appear inconsistent with other Division 6.1 materials with similar properties. We are proposing to align these substances which will result in increasing the inner quantity limits as identified in PI 6X1.

Substances and current inner quantity limits:

UN#	PSN	PG	CLASS	SUB	PASS PI	CARGO PI
UN1737	BENZYL BROMIDE	II	6.1	8	610	612
UN1738	BENZYL CHLORIDE	II	6.1	8	610	612
UN1750	CHLOROACETIC ACID SOLUTION	II	6.1	8	610	612
UN1916	2,2' –DICHLORODIETHYL ETHER	II	6.1	3	610	612
UN2574	TRICRESYL PHOSPHATE	II	6.1		610	612
UN2788	ORGANOTIN COMPOUND, LIQUID, N.O.S.	I	6.1		610	605
UN2788	ORGANOTIN COMPOUND, LIQUID, N.O.S.	II	6.1		610	612

	Glass or Earthenware (IP1)		***Plastic (IP2)***		***Metal (IP3)***		***Aluminium (IP.3)***	
UN No.	*Passenger*	*Cargo*	*Passenger*	*Cargo*	*Passenger*	*Cargo*	*Passenger*	*Cargo*
1737	0.5 L	1 L	0.5 L	1 L	0.5 L	2.5 L	-	-
1738	0.5 L	1 L	0.5 L	1 L	0.5 L	2.5 L	-	-
1750	1 L	2.5 L	1 L	2.5 L	1 L	2.5 L	-	-
1916	0.5 L	1 L	0.5 L	1 L	1 L	2.5 L	-	-
2574	0.5 L	1 L	-	-	1 L	2.5 L	1 L	2.5 L
2788 (PG I)	0.5 L	0.5 L	0.5 L	0.5 L	0.5 L	0.5 L	-	-
2788 (PGII)	0.5 L	1 L	0.5 L	1 L	0.5 L	2. 5 L	-	-

Similar materials used for comparison include:

UN#	ICAO PSN	PG	CLASS	SUB	PASS PI	CARGO PI
UN2810	TOXIC LIQUID, ORGANIC, N.O.S.*	I	6.1		603	604
UN2902	PESTICIDE, LIQUID, TOXIC, N.O.S.*	I	6.1		603	604
UN2903	PESTICIDE, LIQUID, TOXIC, FLAMMABLE, N.O.S.*	I	6.1	3	603	604
UN2927	TOXIC LIQUID, CORROSIVE, ORGANIC, N.O.S.*	I	6.1	8	603	604
UN2929	TOXIC LIQUID, FLAMMABLE, ORGANIC, N.O.S.*	I	6.1	3	603	604
UN2994	ARSENICAL PESTICIDE, LIQUID, TOXIC*.	I	6.1		603	604
UN2995	ORGANOCHLORINE PESTICIDE, LIQUID, TOXIC, FLAMMABLE*	I	6.1	3	603	604
UN2996	ORGANOCHLORINE PESTICIDE, LIQUID, TOXIC*	I	6.1		603	604
UN1181	ETHYL CHLOROACETATE	II	6.1	3	609	611

UN1704	TETRAETHYL DITHIOPYROPHOSPHATE	II	6.1		609	611
UN2022	CRESYLIC ACID	II	6.1	8	609	611
UN2023	EPICHLOROHYDRIN	II	6.1	3	609	611
UN2076	CRESOLS, LIQUID	II	6.1	8	609	611
UN2285	ISOCYANATOBENZOTRIFLUORIDES	II	6.1	3	609	611
UN2589	VINYL CHLOROACETATE	II	6.1	3	609	611
UN2611	PROPYLENE CHLOROHYDRIN	II	6.1	3	609	611
UN2742	CHLOROFORMATES, TOXIC, CORROSIVE, FLAMMABLE, N.O.S.	II	6.1	8	609	611
UN2743	n-BUTYL CHLOROFORMATE	II	6.1	3, 8	609	611
UN2744	CYCLOBUTYL CHLOROFORMATE	II	6.1	3, 8	609	611
UN2745	CHLOROMETHYL CHLOROFORMATE	II	6.1	8	609	611
UN2748	2-ETHYLHEXYL CHLOROFORMATE	II	6.1	8	609	611
UN3279	ORGANOPHOSPHORUS COMPOUND, TOXIC, FLAMMABLE, N.O.S.*	II	6.1	3	609	611

The UN Numbers that would be assigned to PI 6X1 are :

Substances Assigned to 6X1						
UN#	**ICAO PSN**	**PG**	**CLASS**	**SUB**	**PASS PI**	**CARGO PI**
~~UN1143~~	~~CROTONALDEHYDE, STABILIZED~~	~~I~~	~~6.1~~	~~3~~	~~FORBIDDEN~~	~~604~~
~~UN1541~~	~~ACETONE CYANOHYDRIN, STABILIZED~~	~~I~~	~~6.1~~		~~FORBIDDEN~~	~~605~~
UN1553	ARSENIC ACID, LIQUID	I	6.1		603	604
UN1556	ARSENIC COMPOUND, LIQUID, N.O.S.	I	6.1		603	604
UN1602	DYE, LIQUID, TOXIC, N.O.S.*	I	6.1		603	604
UN1935	CYANIDE SOLUTION, N.O.S.	I	6.1		610	605
UN2024	MERCURY COMPOUND, LIQUID, N.O.S.	I	6.1		610	605
UN2317	SODIUM CUPROCYANIDE SOLUTION	I	6.1		603	604
~~UN2407~~	~~ISOPROPYL CHLOROFORMATE~~	~~I~~	~~6.1~~	~~3, 8~~	~~FORBIDDEN~~	~~604~~
~~UN2606~~	~~METHYL ORTHOSILICATE~~	~~I~~	~~6.1~~	~~3~~	~~FORBIDDEN~~	~~604~~
UN2788	ORGANOTIN COMPOUND, LIQUID, N.O.S.	I	6.1		610	605
UN2810	TOXIC LIQUID, ORGANIC, N.O.S.*	I	6.1		603	604
UN2902	PESTICIDE, LIQUID, TOXIC, N.O.S.*	I	6.1		603	604
UN2903	PESTICIDE, LIQUID, TOXIC, FLAMMABLE, N.O.S.*	I	6.1	3	603	604
UN2927	TOXIC LIQUID, CORROSIVE, ORGANIC, N.O.S.*	I	6.1	8	603	604
UN2929	TOXIC LIQUID, FLAMMABLE, ORGANIC, N.O.S.*	I	6.1	3	603	604
UN2991	CARBAMATE PESTICIDE, LIQUID, TOXIC, FLAMMABLE*	I	6.1	3	603	604
UN2992	CARBAMATE PESTICIDE, LIQUID, TOXIC*	I	6.1		603	604
UN2993	ARSENICAL PESTICIDE, LIQUID, TOXIC, FLAMMABLE*	I	6.1	3	603	604
UN2994	ARSENICAL PESTICIDE, LIQUID, TOXIC*.	I	6.1		603	604
UN2995	ORGANOCHLORINE PESTICIDE, LIQUID, TOXIC, FLAMMABLE*	I	6.1	3	603	604
UN2996	ORGANOCHLORINE PESTICIDE, LIQUID, TOXIC*	I	6.1		603	604
UN2997	TRIAZINE PESTICIDE, LIQUID, TOXIC, FLAMMABLE*	I	6.1	3	603	604
UN2998	TRIAZINE PESTICIDE, LIQUID TOXIC*	I	6.1		603	604
UN2999	PHENOXY PESTICIDE, LIQUID,	I	6.1	3	603	604

	TOXIC, FLAMMABLE*					
UN3000	PHENOXY PESTICIDE, LIQUID, TOXIC*	I	6.1		603	604
UN3001	PHENYL UREA PESTICIDE, LIQUID, TOXIC, FLAMMABLE*	I	6.1	3	603	604
UN3002	PHENYL UREA PESTICIDE, LIQUID, TOXIC*	I	6.1		603	604
UN3003	BENZOIC DERIVATIVE PESTICIDE, LIQUID, TOXIC, FLAMMABLE*	I	6.1	3	603	604
UN3004	BENZOIC DERIVATIVE PESTICIDE, LIQUID, TOXIC*	I	6.1		603	604
UN3005	THIOCARBAMATE PESTICIDE, LIQUID, TOXIC, FLAMMABLE*, flash point not less than 23 degrees centigrade	I	6.1	3	603	604
UN3005	DITHIOCARBAMATE, PESTICIDE, LIQUID, TOXIC, FLAMMABLE*.	I	6.1	3	603	604
UN3006	THIOCARBAMATE PESTICIDE, LIQUID, TOXIC*	I	6.1		603	604
UN3006	DITHIOCARBAMATE, PESTICIDE, LIQUID, TOXIC*	I	6.1		603	604
UN3007	PHTHALIMIDE DERIVATIVE PESTICIDE, LIQUID, TOXIC, FLAMMABLE*	I	6.1	3	603	604
UN3008	PHTHALIMIDE DERIVATIVE PESTICIDE, LIQUID, TOXIC*	I	6.1		603	604
UN3009	COPPER BASED PESTICIDE, LIQUID, TOXIC, FLAMMABLE, *	I	6.1	3	603	604
UN3010	COPPER BASED PESTICIDE, LIQUID, TOXIC*	I	6.1		603	604
UN3011	MERCURY BASED PESTICIDE, LIQUID, TOXIC, FLAMMABLE*	I	6.1	3	603	604
UN3012	MERCURY BASED PESTICIDE, LIQUID, TOXIC*	I	6.1		603	604
UN3013	SUBSTITUTED NITROPHENOL PESTICIDE, LIQUID, TOXIC, FLAMMABLE*	I	6.1	3	603	604
UN3014	SUBSTITUTED NITROPHENOL PESTICIDE, LIQUID, TOXIC*	I	6.1		603	604
UN3015	BIPYRIDILIUM PESTICIDE, LIQUID, TOXIC, FLAMMABLE*.	I	6.1	3	603	604
UN3016	BIPYRIDILIUM PESTICIDE, LIQUID, TOXIC*	I	6.1		603	604
UN3017	ORGANOPHOSPHORUS PESTICIDE, LIQUID, TOXIC, FLAMMABLE*	I	6.1	3	603	604
UN3018	ORGANOPHOSPHORUS PESTICIDE, LIQUID, TOXIC*	I	6.1		603	604
UN3019	ORGANOTIN PESTICIDE, LIQUID,	I	6.1	3	603	604

	TOXIC, FLAMMABLE*					
UN3020	ORGANOTIN PESTICIDE, LIQUID, TOXIC*	I	6.1		603	604
UN3025	COUMARIN DERIVATIVE PESTICIDE, LIQUID, TOXIC, FLAMMABLE*	I	6.1	3	603	604
UN3026	COUMARIN DERIVATIVE PESTICIDE, LIQUID, TOXIC*	I	6.1		603	604
UN3122	TOXIC LIQUID, OXIDIZING, N.O.S.*	I	6.1	5.1	FORBIDDEN	604
UN3123	TOXIC LIQUID, WATER-REACTIVE, N.O.S.*	I	6.1	4.3	FORBIDDEN	604
UN3140	ALKALOIDS, LIQUID, N.O.S.*	I	6.1		603	604
UN3142	DISINFECTANTS, LIQUID, TOXIC, N.O.S.	I	6.1		603	604
UN3144	NICOTINE COMPOUND, LIQUID, N.O.S.	I	6.1		603	604
UN3172	TOXINS, EXTRACTED FROM LIVING SOURCES, LIQUID, N.O.S.	I	6.1		603	604
UN3246	METHANESULPHONYL CHLORIDE	I	6.1	8	603	604
UN3275	NITRILES, TOXIC, FLAMMABLE, N.O.S.*	I	6.1	3	603	604
UN3276	NITRILES, TOXIC, N.O.S.*, liquid	I	6.1		603	604
UN3278	ORGANOPHOSPHORUS COMPOUND, TOXIC, N.O.S.* liquid	I	6.1		603	604
UN3279	ORGANOPHOSPHORUS COMPOUND, TOXIC, FLAMMABLE, N.O.S.*	I	6.1	3	603	604
UN3280	ORGANOARSENIC COMPOUND, N.O.S.*,LIQUID	I	6.1		603	604
UN3281	METAL CARBONYLS, N.O.S.*, liquid	I	6.1		603	604
UN3282	ORGANOMETALLIC COMPOUND, TOXIC, N.O.S., liquid	I	6.1		603	604
UN3287	TOXIC LIQUID, INORGANIC, N.O.S.*	I	6.1		603	604
UN3289	TOXIC LIQUID, CORROSIVE, INORGANIC, N.O.S.*	I	6.1	8	603	604
UN3347	PHENOXYACETIC ACID DERIVARIVE PESTICIDE, LIQUID, TOXIC, FLAMMABLE,* flash point not less than 23 degrees centigrade	I	6.1	3	603	604
UN3348	PHENOXYACETIC ACID DERIVATIVE PESTICIDE, LIQUID, TOXIC*	I	6.1		603	604
UN3351	PRETHROID PESTICIDE, LIQUID, TOXIC, FLAMMABLE*, flash point not less than 23 degrees centigrade	I	6.1	3	603	604
UN3352	PYRETHROID PESTICIDE, LIQUID,	I	6.1		603	604

	TOXIC*					
UN1181	ETHYL CHLOROACETATE	II	6.1	3	609	611
UN1199	FURALDEHYDES	II	6.1	3	609	611
UN1547	ANILINE	II	6.1		609	611
UN1577	CHLORODINITROBENZENES, LIQUID	II	6.1		609	611
UN1578	CHLORONITROBENZENES, LIQUID	II	6.1		609	611
UN1590	DICHLOROANILINES, LIQUID	II	6.1		609	611
UN1594	DIETHYL SULPHATE	II	6.1		609	611
UN1597	DINITROBENZENES, LIQUID	II	6.1		609	611
UN1598	DINITRO-o-CRESOL, SOLUTION	II	6.1		609	611
UN1599	DINITROPHENOL SOLUTION	II	6.1		609	611
UN1611	HEXAETHYL TETRAPHOSPHATE, LIQUID	II	6.1		609	611
UN1638	MERCURY IODIDE solution	II	6.1		610	612
UN1654	NICOTINE	II	6.1		609	611
UN1656	NICOTINE HYDROCHLORIDE	II	6.1		609	611
UN1658	NICOTINE SULPHATE SOLUTION	II	6.1		609	611
UN1662	NITROBENZENE	II	6.1		609	611
UN1664	NITROTOLUENES, LIQUID	II	6.1		609	611
UN1665	NITROXYLENES, LIQUID	II	6.1		609	611
UN1669	PENTACHLOROETHANE	II	6.1		609	611
UN1686	SODIUM ARSENITE, AQUEOUS SOLUTION	II	6.1		609	611
UN1693	TEAR GAS SUBSTANCE, LIQUID, N.O.S.*	II	6.1		FORBIDDEN	611
UN1702	TETRACHLOROETHANE	II	6.1		610	612
UN1704	TETRAETHYL DITHIOPYROPHOSPHATE	II	6.1		609	611
UN1708	TOLUIDINES, LIQUID	II	6.1		609	611
UN1711	XYLIDINES, LIQUID	II	6.1		609	611
UN1737	BENZYL BROMIDE	II	6.1	8	610	612
UN1738	BENZYL CHLORIDE	II	6.1	8	610	612
UN1750	CHLOROACETIC ACID SOLUTION	II	6.1	8	610	612
UN1846	CARBON TETRACHLORIDE	II	6.1		610	612
UN1851	MEDICINE, LIQUID, TOXIC, N.O.S.	II	6.1		609	611
UN1886	BENZYLIDENE CHLORIDE	II	6.1		609	611
UN1891	ETHYL BROMIDE	II	6.1		609	611
UN1916	2,2' -DICHLORODIETHYL ETHER	II	6.1	3	610	612
UN1935	CYANIDE SOLUTION, N.O.S.	II	6.1		617	612
UN2019	CHLOROANILINES, LIQUID	II	6.1		609	611
UN2022	CRESYLIC ACID	II	6.1	8	609	611
UN2023	EPICHLOROHYDRIN	II	6.1	3	609	611
UN2024	MERCURY COMPOUND, LIQUID, N.O.S.	II	6.1		617	612
UN2038	DINITROTOLUENES, LIQUID	II	6.1		609	611
UN2075	CHLORAL,	II	6.1		609	611

	ANHYDROUS,STABILIZED					
UN2076	CRESOLS, LIQUID	II	6.1	8	609	611
UN2078	TOLUENE DIISOCYANATE	II	6.1		609	611
UN2206	ISOCYANATES, TOXIC, N.O.S.*	II	6.1		609	611
UN2224	BENZONITRILE	II	6.1		609	611
UN2236	3-CHLORO-4-METHYLPHENYL ISOCYANATE	II	6.1		609	611
UN2253	N,N-DIMETHYLANILINE	II	6.1		609	611
UN2267	DIMETHYL THIOPHOSPHORYL CHLORIDE	II	6.1	8	609	611
UN2281	HEXAMETHYLENE DIISOCYANATE	II	6.1		609	611
UN2285	ISOCYANATOBENZOTRIFLUORIDES	II	6.1	3	609	611
UN2306	NITROBENZOTRIFLUORIDES	II	6.1		609	611
UN2307	3-NITRO-4-CHLOROBENZOTRIFLUORIDE	II	6.1		609	611
UN2322	TRICHLOROBUTENE	II	6.1		609	611
UN2490	DICHLOROISOPROPYL ETHER	II	6.1		609	611
UN2501	TRIS-(1-AZIRIDINYL) PHOSPHINE OXIDE SOLUTION	II	6.1		609	611
UN2522	2-DIMETHYLAMINOETHYL METHACRYLATE	II	6.1		609	611
UN2542	TRIBUTYLAMINE	II	6.1		609	611
UN2552	HEXAFLUOROACETONE HYDRATE	II	6.1		609	611
UN2572	PHENYLHYDRAZINE	II	6.1		609	611
UN2574	TRICRESYL PHOSPHATE	II	6.1		610	612
UN2589	VINYL CHLOROACETATE	II	6.1	3	609	611
UN2611	PROPYLENE CHLOROHYDRIN	II	6.1	3	609	611
UN2643	METHYL BROMOACETATE	II	6.1		609	611
UN2648	1,2-DIBROMOBUTAN-3-ONE	II	6.1		609	611
UN2650	1,1-DICHLORO-1-NITROETHANE	II	6.1		609	611
UN2653	BENZYL IODIDE	II	6.1		609	611
UN2668	CHLOROACETONITRILE	II	6.1	3	FORBIDDEN	611
UN2669	CHLOROCRESOLS, Solution	II	6.1		609	611
UN2690	N,n-BUTYL IMIDAZOLE	II	6.1		609	611
UN2738	N-BUTYLANILINE	II	6.1		609	611
UN2742	CHLOROFORMATES, TOXIC, CORROSIVE, FLAMMABLE, N.O.S.	II	6.1	8	609	611
UN2743	n-BUTYL CHLOROFORMATE	II	6.1	3, 8	609	611
UN2744	CYCLOBUTYL CHLOROFORMATE	II	6.1	3, 8	609	611
UN2745	CHLOROMETHYL CHLOROFORMATE	II	6.1	8	609	611
UN2746	PHENYL CHLOROFORMATE	II	6.1	8	609	611
UN2748	2-ETHYLHEXYL CHLOROFORMATE	II	6.1	8	609	611
UN2750	1,3-DICHLOROPROPANOL-2	II	6.1		609	611

UN2754	N-ETHYLTOLUIDINES	II	6.1		609	611
UN2788	ORGANOTIN COMPOUND, LIQUID, N.O.S.	II	6.1		610	612
UN2821	PHENOL SOLUTION	II	6.1		609	611
UN2822	2-CHLOROPYRIDINE	II	6.1		609	611
UN2839	ALDOL	II	6.1		609	611
UN2872	DIBROMOCHLOROPROPANES	II	6.1		609	611
UN2927	TOXIC LIQUID, CORROSIVE, ORGANIC, N.O.S.*	II	6.1	8	609	611
UN2929	TOXIC LIQUID, FLAMMABLE, ORGANIC, N.O.S.*	II	6.1	3	609	611
UN2936	THIOLACTIC ACID	II	6.1		609	611
UN2948	3-TRIFLUOROMETHYLANILINE	II	6.1		609	611
UN2966	THIOGLYCOL	II	6.1		609	611
UN3071	MERCAPTANS, LIQUID, TOXIC, FLAMMABLE, N.O.S.*	II	6.1	3	610	612
UN3073	VINYLPYRIDINES, STABILIZED	II	6.1	3, 8	609	611
UN3080	ISOCYANATES, TOXIC, FLAMMABLE, N.O.S.*	II	6.1	3	609	611
UN3122	TOXIC LIQUID, OXIDIZING, N.O.S.*	II	6.1	5.1	609	611
UN3123	TOXIC LIQUID, WATER-REACTIVE, N.O.S.*	II	6.1	4.3	609	611
UN3275	NITRILES, TOXIC, FLAMMABLE, N.O.S.*	II	6.1	3	609	611
UN3277	CHLOROFORMATES, TOXIC, CORROSIVE, N.O.S.*	II	6.1	8	609	611
UN3279	ORGANOPHOSPHORUS COMPOUND, TOXIC, FLAMMABLE, N.O.S.*	II	6.1	3	609	611
UN3289	TOXIC LIQUID, CORROSIVE, INORGANIC, N.O.S.*	II	6.1	8	609	611
UN3302	2-DIMETHYLAMINOETHYL ACRYLATE	II	6.1		609	611
UN1556	ARSENIC COMPOUND, LIQUID, N.O.S.	III	6.1		611	618
UN1556	ARSENIC COMPOUND, LIQUID, N.O.S.	III	6.1		611	618
UN1591	o-DICHLOROBENZENE	III	6.1		611	618
UN1593	DICHLOROMETHANE	III	6.1		605	612
UN1599	DINITROPHENOL SOLUTION	III	6.1		611	618
UN1602	DYE, LIQUID, TOXIC, N.O.S.*	III	6.1		611	618
UN1602	DYE INTERMEDIATE, LIQUID, TOXIC, N.O.S.*	III	6.1		611	618
UN1686	SODIUM ARSENITE, AQUEOUS SOLUTION	III	6.1		611	618
UN1710	TRICHLOROETHYLENE	III	6.1		605	612
UN1851	MEDICINE, LIQUID, TOXIC, N.O.S.	III	6.1		609	611
UN1887	BROMOCHLOROMETHANE	III	6.1		611	618
UN1888	CHLOROFORM	III	6.1		610	612

UN1897	TETRACHLOROETHYLENE	III	6.1		605	612
UN1935	CYANIDE SOLUTION, N.O.S.	III	6.1		612	620
UN2021	CHLOROPHENOLS, LIQUID	III	6.1		611	618
UN2024	MERCURY COMPOUND, LIQUID, N.O.S.	III	6.1		612	620
UN2205	ADIPONITRILE	III	6.1		611	618
UN2206	ISOCYANATES, TOXIC, N.O.S.*	III	6.1		611	618
UN2207	ISOCYANATES, N.O.S.*, boiling point not less than 300 degrees C	III	6.1		611	618
UN2235	CHLOROBENZYL CHLORIDES	III	6.1		611	618
UN2239	CHLOROTOLUIDINES, LIQUID	III	6.1		611	618
UN2272	N-ETHYLANILINE	III	6.1		611	618
UN2273	2-ETHYLANILINE	III	6.1		611	618
UN2274	N-ETHYL-N-BENZYLANILINE	III	6.1		611	618
UN2279	HEXACHLOROBUTADIENE	III	6.1		611	618
UN2290	ISOPHORONE DIISOCYANATE	III	6.1		611	618
UN2294	N-METHYLANILINE	III	6.1		611	618
UN2299	METHYL DICHLOROACETATE	III	6.1		611	618
UN2300	2-METHYL-5-ETHYLPYRIDINE	III	6.1		611	618
UN2311	PHENETIDINES	III	6.1		611	618
UN2321	TRICHLOROBENZENES, LIQUID	III	6.1		611	618
UN2328	TRIMETHYLHEXAMETHYLENE DIISOCYANATE	III	6.1		611	618
UN2431	ANISIDINES, LIQUID	III	6.1		611	618
UN2432	N,N-DIETHYLANILINE	III	6.1		611	618
UN2433	CHLORONITROTOLUENES, LIQUID	III	6.1		611	618
UN2470	PHENYLACETONITRILE, LIQUID	III	6.1		611	618
UN2501	TRIS-(1-AZIRIDINYL) PHOSPHINE OXIDE SOLUTION	III	6.1		611	618
UN2504	TETRABROMOETHANE	III	6.1		611	618
UN2515	BROMOFORM	III	6.1		611	618
UN2518	1,5,9-CYCLODODECATRIENE	III	6.1		611	618
UN2525	ETHYL OXALATE	III	6.1		611	618
UN2533	METHYL TRICHLOROACETATE	III	6.1		611	618
UN2609	TRIALLYL BORATE	III	6.1		611	618
UN2656	QUINOLINE	III	6.1		611	618
UN2661	HEXACHLOROACETONE	III	6.1		611	618
UN2664	DIBROMOMETHANE	III	6.1		611	618
UN2666	ETHYL CYANOACETATE	III	6.1		611	618
UN2667	BUTYLTOLUENES	III	6.1		611	618
UN2688	1-BROMO-3-CHLOROPROPANE	III	6.1		611	618
UN2689	GLYCEROL alpha-MONOCHLOROHYDRIN	III	6.1		611	618
UN2730	NITROANISOLE, LIQUID	III	6.1		611	618
UN2732	NITROBROMOBENZENE, LIQUID	III	6.1		611	618
UN2747	tert-BUTYLCYCLOHEXYL CHLOROFORMATE	III	6.1		611	618

UN2753	N-ETHYLBENZYLTOLUIDINES, LIQUID	III	6.1		611	618
UN2785	4-THIAPENTANAL	III	6.1		611	618
UN2788	ORGANOTIN COMPOUND, LIQUID, N.O.S.	III	6.1		611	618
UN2810	TOXIC LIQUID, ORGANIC, N.O.S.*	III	6.1		611	618
UN2810	TOXIC LIQUID, ORGANIC, N.O.S.*	III	6.1		611	618
UN2821	PHENOL SOLUTION	III	6.1		611	618
UN2831	1,1,1-TRICHLOROETHANE	III	6.1		605	612
UN2849	3-CHLOROPROPANOL-1	III	6.1		611	618
UN2872	DIBROMOCHLOROPROPANES	III	6.1		611	618
UN2873	DIBUTYLAMINOETHANOL	III	6.1		611	618
UN2874	FURFURYL ALCOHOL	III	6.1		611	618
UN2902	PESTICIDE, LIQUID, TOXIC, N.O.S.*	III	6.1		611	618
UN2902	PESTICIDE, LIQUID, TOXIC, N.O.S.*	III	6.1		611	618
UN2903	PESTICIDE, LIQUID, TOXIC, FLAMMABLE, N.O.S.*	III	6.1	3	611	618
UN2903	PESTICIDE, LIQUID, TOXIC, FLAMMABLE, N.O.S.*	III	6.1	3	611	618
UN2937	alpha-METHYLBENZYL ALCOHOL	III	6.1		611	618
UN2938	METHYL BENZOATE	III	6.1		611	618
UN2941	FLUOROANILINES	III	6.1		611	618
UN2942	2-TRIFLUOROMETHYLANILINE	III	6.1		611	618
UN2946	2-AMINO-5-DIETHYLAMINOPENTANE	III	6.1		611	618
UN2991	CARBAMATE PESTICIDE, LIQUID, TOXIC, FLAMMABLE*	III	6.1	3	611	618
UN2991	CARBAMATE PESTICIDE, LIQUID, TOXIC, FLAMMABLE*	III	6.1	3	611	618
UN2992	CARBAMATE PESTICIDE, LIQUID, TOXIC*	III	6.1		611	618
UN2992	CARBAMATE PESTICIDE, LIQUID, TOXIC*	III	6.1		611	618
UN2993	ARSENICAL PESTICIDE, LIQUID, TOXIC, FLAMMABLE*	III	6.1	3	611	618
UN2993	ARSENICAL PESTICIDE, LIQUID, TOXIC, FLAMMABLE*	III	6.1	3	611	618
UN2994	ARSENICAL PESTICIDE, LIQUID, TOXIC*.	III	6.1		611	618
UN2994	ARSENICAL PESTICIDE, LIQUID, TOXIC*.	III	6.1		611	618
UN2995	ORGANOCHLORINE PESTICIDE, LIQUID, TOXIC, FLAMMABLE*	III	6.1	3	611	618
UN2995	ORGANOCHLORINE PESTICIDE, LIQUID, TOXIC, FLAMMABLE*	III	6.1	3	611	618
UN2996	ORGANOCHLORINE PESTICIDE, LIQUID, TOXIC*	III	6.1		611	618

UN2996	ORGANOCHLORINE PESTICIDE, LIQUID, TOXIC*	III	6.1		611	618
UN2997	TRIAZINE PESTICIDE, LIQUID, TOXIC, FLAMMABLE*	III	6.1	3	611	618
UN2997	TRIAZINE PESTICIDE, LIQUID, TOXIC, FLAMMABLE*	III	6.1	3	611	618
UN2998	TRIAZINE PESTICIDE, LIQUID TOXIC*	III	6.1		611	618
UN2998	TRIAZINE PESTICIDE, LIQUID TOXIC*	III	6.1		611	618
UN2999	PHENOXY PESTICIDE, LIQUID, TOXIC, FLAMMABLE*	III	6.1	3	611	618
UN2999	PHENOXY PESTICIDE, LIQUID, TOXIC, FLAMMABLE*	III	6.1	3	611	618
UN3000	PHENOXY PESTICIDE, LIQUID, TOXIC*	III	6.1		611	618
UN3000	PHENOXY PESTICIDE, LIQUID, TOXIC*	III	6.1		611	618
UN3001	PHENYL UREA PESTICIDE, LIQUID, TOXIC, FLAMMABLE*	III	6.1	3	611	618
UN3001	PHENYL UREA PESTICIDE, LIQUID, TOXIC, FLAMMABLE*	III	6.1	3	611	618
UN3002	PHENYL UREA PESTICIDE, LIQUID, TOXIC*	III	6.1		611	618
UN3002	PHENYL UREA PESTICIDE, LIQUID, TOXIC*	III	6.1		611	618
UN3003	BENZOIC DERIVATIVE PESTICIDE, LIQUID, TOXIC, FLAMMABLE*	III	6.1	3	611	618
UN3003	BENZOIC DERIVATIVE PESTICIDE, LIQUID, TOXIC, FLAMMABLE*	III	6.1	3	611	618
UN3004	BENZOIC DERIVATIVE PESTICIDE, LIQUID, TOXIC*	III	6.1		611	618
UN3004	BENZOIC DERIVATIVE PESTICIDE, LIQUID, TOXIC*	III	6.1		611	618
UN3005		III	6.1	3	611	618
UN3005	THIOCARBAMATE PESTICIDE, LIQUID, TOXIC, FLAMMABLE*, flash point not less than 23 degrees centigrade	III	6.1	3	611	618
UN3005	THIOCARBAMATE PESTICIDE, LIQUID, TOXIC, FLAMMABLE*, flash point not less than 23 degrees centigrade	III	6.1	3	611	618
UN3005		III	6.1	3	611	618
UN3006		III	6.1		611	618
UN3006	THIOCARBAMATE PESTICIDE, LIQUID, TOXIC*	III	6.1		611	618
UN3006	THIOCARBAMATE PESTICIDE, LIQUID, TOXIC*	III	6.1		611	618

UN3006		III	6.1		611	618
UN3007	PHTHALIMIDE DERIVATIVE PESTICIDE, LIQUID, TOXIC, FLAMMABLE*	III	6.1	3	611	618
UN3007	PHTHALIMIDE DERIVATIVE PESTICIDE, LIQUID, TOXIC, FLAMMABLE*	III	6.1	3	611	618
UN3008	PHTHALIMIDE DERIVATIVE PESTICIDE, LIQUID, TOXIC*	III	6.1		611	618
UN3008	PHTHALIMIDE DERIVATIVE PESTICIDE, LIQUID, TOXIC*	III	6.1		611	618
UN3009	COPPER BASED PESTICIDE, LIQUID, TOXIC, FLAMMABLE, *	III	6.1	3	611	618
UN3009	COPPER BASED PESTICIDE, LIQUID, TOXIC, FLAMMABLE, *	III	6.1	3	611	618
UN3010	COPPER BASED PESTICIDE, LIQUID, TOXIC*	III	6.1		611	618
UN3010	COPPER BASED PESTICIDE, LIQUID, TOXIC*	III	6.1		611	618
UN3011	MERCURY BASED PESTICIDE, LIQUID, TOXIC, FLAMMABLE*	III	6.1	3	611	618
UN3011	MERCURY BASED PESTICIDE, LIQUID, TOXIC, FLAMMABLE*	III	6.1	3	611	618
UN3012	MERCURY BASED PESTICIDE, LIQUID, TOXIC*	III	6.1		611	618
UN3012	MERCURY BASED PESTICIDE, LIQUID, TOXIC*	III	6.1		611	618
UN3013	SUBSTITUTED NITROPHENOL PESTICIDE, LIQUID, TOXIC, FLAMMABLE*	III	6.1	3	611	618
UN3013	SUBSTITUTED NITROPHENOL PESTICIDE, LIQUID, TOXIC, FLAMMABLE*	III	6.1	3	611	618
UN3014	SUBSTITUTED NITROPHENOL PESTICIDE, LIQUID, TOXIC*	III	6.1		611	618
UN3014	SUBSTITUTED NITROPHENOL PESTICIDE, LIQUID, TOXIC*	III	6.1		611	618
UN3015	BIPYRIDILIUM PESTICIDE, LIQUID, TOXIC, FLAMMABLE*.	III	6.1	3	611	618
UN3015	BIPYRIDILIUM PESTICIDE, LIQUID, TOXIC, FLAMMABLE*.	III	6.1	3	611	618
UN3016	BIPYRIDILIUM PESTICIDE, LIQUID, TOXIC*	III	6.1		611	618
UN3016	BIPYRIDILIUM PESTICIDE, LIQUID, TOXIC*	III	6.1		611	618
UN3017	ORGANOPHOSPHORUS PESTICIDE, LIQUID, TOXIC, FLAMMABLE*	III	6.1	3	611	618
UN3017	ORGANOPHOSPHORUS	III	6.1	3	611	618

	PESTICIDE, LIQUID, TOXIC, FLAMMABLE*					
UN3018	ORGANOPHOSPHORUS PESTICIDE, LIQUID, TOXIC*	III	6.1		611	618
UN3018	ORGANOPHOSPHORUS PESTICIDE, LIQUID, TOXIC*	III	6.1		611	618
UN3019	ORGANOTIN PESTICIDE, LIQUID, TOXIC, FLAMMABLE*	III	6.1	3	611	618
UN3019	ORGANOTIN PESTICIDE, LIQUID, TOXIC, FLAMMABLE*	III	6.1	3	611	618
UN3020	ORGANOTIN PESTICIDE, LIQUID, TOXIC*	III	6.1		611	618
UN3020	ORGANOTIN PESTICIDE, LIQUID, TOXIC*	III	6.1		611	618
UN3025	COUMARIN DERIVATIVE PESTICIDE, LIQUID, TOXIC, FLAMMABLE*	III	6.1	3	611	618
UN3025	COUMARIN DERIVATIVE PESTICIDE, LIQUID, TOXIC, FLAMMABLE*	III	6.1	3	611	618
UN3026	COUMARIN DERIVATIVE PESTICIDE, LIQUID, TOXIC*	III	6.1		611	618
UN3026	COUMARIN DERIVATIVE PESTICIDE, LIQUID, TOXIC*	III	6.1		611	618
UN3140	ALKALOID SALTS, LIQUID, N.O.S.*	III	6.1		611	618
UN3140	ALKALOIDS, LIQUID, N.O.S.*	III	6.1		611	618
UN3141	ANTIMONY COMPOUND, INORGANIC, LIQUID, N.O.S.	III	6.1		611	618
UN3142	DISINFECTANTS, LIQUID, TOXIC, N.O.S.	III	6.1		611	618
UN3142	DISINFECTANTS, LIQUID, TOXIC, N.O.S.	III	6.1		611	618
UN3144	NICOTINE PREPARATION, LIQUID, N.O.S.	III	6.1		611	618
UN3144	NICOTINE COMPOUND, LIQUID, N.O.S.	III	6.1		611	618
UN3172	TOXINS, EXTRACTED FROM LIVING SOURCES, LIQUID, N.O.S.	III	6.1		611	618
UN3172	TOXINS, EXTRACTED FROM LIVING SOURCES, LIQUID, N.O.S.	III	6.1		611	618
UN3276	NITRILES, TOXIC, N.O.S.*, liquid	III	6.1		611	618
UN3276	NITRILES, TOXIC, N.O.S.*, liquid	III	6.1		611	618
UN3278	ORGANOPHOSPHORUS COMPOUND, TOXIC, N.O.S.* liquid	III	6.1		611	618
UN3278	ORGANOPHOSPHORUS COMPOUND, TOXIC, N.O.S.* liquid	III	6.1		611	618
UN3280	ORGANOARSENIC COMPOUND, N.O.S.*,LIQUID	III	6.1		611	618
UN3280	ORGANOARSENIC COMPOUND,	III	6.1		611	618

	N.O.S.*,LIQUID					
UN3281	METAL CARBONYLS, N.O.S.*, liquid	III	6.1		611	618
UN3281	METAL CARBONYLS, N.O.S.*, liquid	III	6.1		611	618
UN3282	ORGANOMETALLIC COMPOUND, TOXIC, N.O.S., liquid	III	6.1		611	618
UN3282	ORGANOMETALLIC COMPOUND, TOXIC, N.O.S., liquid	III	6.1		611	618
UN3287	TOXIC LIQUID, INORGANIC, N.O.S.*	III	6.1		611	618
UN3287	TOXIC LIQUID, INORGANIC, N.O.S.*	III	6.1		611	618
UN3293	HYDRAZINE, AQUEOUS SOLUTION with not more than 37% hydrazine, by mass	III	6.1		611	618
UN3347	PHENOXYACETIC ACID DERIVARIVE PESTICIDE, LIQUID, TOXIC, FLAMMABLE,* flash point not less than 23 degrees centigrade	III	6.1	3	611	618
UN3347	PHENOXYACETIC ACID DERIVARIVE PESTICIDE, LIQUID, TOXIC, FLAMMABLE,* flash point not less than 23 degrees centigrade	III	6.1	3	611	618
UN3348	PHENOXYACETIC ACID DERIVATIVE PESTICIDE, LIQUID, TOXIC*	III	6.1		611	618
UN3348	PHENOXYACETIC ACID DERIVATIVE PESTICIDE, LIQUID, TOXIC*	III	6.1		611	618
UN3351	PRETHROID PESTICIDE, LIQUID, TOXIC, FLAMMABLE*, flash point not less than 23 degrees centigrade	III	6.1	3	611	618
UN3351	PRETHROID PESTICIDE, LIQUID, TOXIC, FLAMMABLE*, flash point not less than 23 degrees centigrade	III	6.1	3	611	618
UN3352	PYRETHROID PESTICIDE, LIQUID, TOXIC*	III	6.1		611	618
UN3352	PYRETHROID PESTICIDE, LIQUID, TOXIC*	III	6.1		611	618

6X2	PACKING INSTRUCTION 6X2	6X2

The general packing requirements of Part 4, Chapter 1 must be met.

COMBINATION PACKAGINGS:

INNER:

The following inner packagings are authorized for the indicated quantities of liquid for cargo aircraft only unless otherwise indicated. When a packaging is not permitted the word "prohibited" is indicated.

	Cargo Aircraft Only				
	UN No.	***Glass or Earthenware (IP1)***	***Plastic (IP2)***	***Metal (IP3)***	***Aluminium (IP.3A)***
	1545	1 L	Prohibited	2.5 L	2.5 L
	1649	0.5 L	Prohibited	1 L	Prohibited
	1694	Prohibited	Prohibited	0.5 L	Prohibited
	1697	1 L	Prohibited	2.5 L	Prohibited
	1701	1 L	1 L	2.5 L	Prohibited
	~~2485~~	~~1 L~~	~~1 L~~	~~1 L~~	~~1 L~~
	~~2740~~	~~0.5 L~~	~~0.5 L~~	~~1 L~~	~~Prohibited~~

OUTER:

	Boxes	***Drums***	***Jerricans***	
	aluminium (4B) fibreboard (4G) plywood (4D) reconstituted wood (4F) expanded plastic (4H1) solid plastic (4H2) steel (4A) wooden (4C1, 4C2)	aluminium (1B2) fibre (1G) plywood (1D) steel (1A2) plastic (1H2) other metal (1N2)	aluminium (3B2) steel (3A2) plastic (3H2)	

SINGLE PACKAGINGS:

	Cargo Aircraft Only			
	PG I	PG II	PG III	
	Drums: 1A1, 1H1, and 1N1	**Drums:** 1A1, 1B1, 1H1, and 1N1	**Drums:** 1A1, 1B1, 1H1, and 1N1	
	Jerricans: 3A1, 3H1	**Jerricans:** 3A1, 3B1, and 3H1	**Jerricans:** 3A1, 3B1, and 3H1	
	Composites (plastic): 6HA1, 6HB1, 6HG1, 6HH1, 6HD1, 6H2, 6HB2, 6HC, 6HD2, 6HG2, and 6HH2.	**Composites (plastic):** 6HA1, 6HB1, 6HG1, 6HH1, 6HD1, 6H2, 6HB2, 6HC, 6HD2, 6HG2, and 6HH2.	**Composites (plastic):** 6HA1, 6HB1, 6HG1, 6HH1, 6HD1, 6H2, 6HB2, 6HC, 6HD2, 6HG2, and 6HH2	
	Cylinders: As permitted in Packing Instruction 200	**Cylinders:** As permitted in Packing Instruction 200	**Cylinders:** As permitted in Packing Instruction 200	

Particular Packaging Requirements

PPR6X2-1 For UN 1545, 1649, 1697, 1701, ~~2485, and~~ ~~2740~~ , glass or earthenware inner packagings must be packed with absorbent material in tightly closed metal or rigid plastic receptacles before packing in outer packaging.

PPR6X2-2 For UN 1701 and ~~2740,~~ plastic inner packagings must be packed in tightly closed metal or rigid plastic receptacles before packing in outer packagings.

PPR6X2-3 For UN 1545, 1649, 1697, ~~and 2740~~, plastic single packagings are not permitted.

PPR6X2-4 For UN 1649, 1697, 1701, ~~and 2740~~ aluminium single packagings are not permitted.

Notes: This instruction includes UN1545, 1649, 1694, 1697, 1701, 2485, and 2740 from existing packing instructions 605, 610, and 612.

- PPR6X2-1 is the former PPR13
- PPR6X2-2 is the former PPR2
- PPR6X2-3 and PPR6X2-4 are packaging type restrictions from the existing packaging instructions.
- Inner package quantity limits were not changed.
- Inner packaging IP8 removed, now included in IP1 definition.
  Added outer packagings to harmonize with UN Model Regulations: Boxes, expanded plastic (4H1) and Drums other metal (1N2).
  Added single packagings to harmonize with UN Model Regulations: Drums other metal (1N1); Jericans

aluminium (3B1).
- Added specification codes for composite plastic single packagings.
The following PPR was judged to be a compatibility issue and has been removed from the packing instruction (from PI 605, 610, and 612):
- PPR 5 Steel packagings must be corrosion resistant or with protection from corrosion (applies to UN 1545, 1701, 2485, and 2740).
- These materials were separated into a separate instruction due to the significant differences in inner
- quantity limits from those materials assigned to PI 6X1.
- The working group should consider whether a single set of inner packaging quantities could be established for this group of substances.

The substances that would be assigned to 6X2 are:

Substances Assigned to 6X2						
UN#	**ICAO PSN**	**PG**	**CLASS**	**SUB**	**PASS PI**	**CARGO PI**
UN1649	MOTOR FUEL ANTI-KNOCK MIXTURE	I	6.1		FORBIDDEN	605
UN1694	BROMOBENZYL CYANIDES, LIQUID	I	6.1		FORBIDDEN	605
~~UN2485~~**	**~~n-BUTYL ISOCYANATE~~**	**~~I~~**	**~~6.1~~**	**~~3~~**	**~~FORBIDDEN~~**	**~~605~~**
~~UN2740~~**	**~~n-PROPYL CHLOROFORMATE~~**	**~~I~~**	**~~6.1~~**	**~~3, 8~~**	**~~FORBIDDEN~~**	**~~605~~**
UN1545	ALLYL ISOTHIOCYANATE, STABILIZED	II	6.1	3	FORBIDDEN	612
UN1697	CHLOROACETOPHENONE, LIQUID	II	6.1		FORBIDDEN	612
UN1701	XYLYL BROMIDE	II	6.1		FORBIDDEN	612

~~~~ The panel should consider designating these materials (UN2485 n-butyl isocyanate and UN2740 n- propyl chloroformate) Forbidden for both passenger and cargo aircraft due to their toxic-by-inhalation properties. We have noticed other materials with high toxic-by-inhalation properties that remain authorized for cargo aircraft only shipment. One substance, UN2743 n-butyl chloroformate, is even authorized as a limited quantity (Y609). We intend to submit a separate proposal to address these substances in greater detail.

6X3	PACKING INSTRUCTION 6X3	6X3

The general packing requirements of Part 4, Chapter 1 must be met.

COMBINATION PACKAGINGS:

INNER:

The following inner packagings are authorized for the indicated mass of solid for passenger or cargo aircraft. When a packaging is not permitted the word "prohibited" is indicated.

	Passenger Aircraft			*Cargo Aircraft*		
	PG I	*PG II*	*PG III*	*PG I*	*PG II*	*PG III*
Glass or earthenware (IP.1)	0.5 kg	1 kg	5 kg	1 kg	2.5 kg	5 kg
Plastic (IP.2)	1 kg	2.5 kg	10 kg	2.5 kg	5 kg	10 kg
Metal (IP.3, IP.3A)	1 kg	2.5 kg	10 kg	2.5 kg	5 kg	10 kg
Paper (IP.4)	Prohibited	1 kg	5 kg	Prohibited	2.5 kg	5 kg
Plastic (IP.5)	0.5 kg	1 kg	5 kg	1 kg	2.5 kg	5 kg
Fibre (IP.6)	0.5 kg	1 kg	5 kg	1 kg	2.5 kg	5 kg
Paper, plastic/aluminium (IP.10)	0.5 kg	1 kg	5 kg	1 kg	2.5 kg	5 kg

OUTER:

Boxes	*Drums*	*Jerricans*
aluminium (4B) fibreboard (4G) plywood (4D) reconstituted wood (4F) expanded plastic (4H1) solid plastic (4H2) steel (4A) wooden (4C1, 4C2)	aluminium (1B2) fibre (1G) plywood (1D) steel (1A2) plastic (1H2) other metal (1N2)	aluminium (3B2) steel (3A2) plastic (3H2)

SINGLE PACKAGINGS:

Passenger Aircraft			*Cargo Aircraft*		
PG I	PG II	PG III	PG I	PG II	PG III
-	-	**Bags:** 5M2, 5H2, 5H3, and 5H4	-	-	**Bags:** 5M2, 5H2, 5H3, and 5H4
-	-	**Drums:** 1A1, 1A2, 1B1, 1B2, 1D (with inner plastic liner), 1G (with inner plastic liner), 1H1, 1H2, 1N1 and 1N2	**Drums:** 1A1, 1A2, 1B1, 1B2, 1D (with inner plastic liner), 1G (with inner plastic liner), 1H1, 1H2, 1N1 and 1N2	**Drums:** 1A1, 1A2, 1B1, 1B2, 1D (with inner plastic liner), 1G (with inner plastic liner), 1H1, 1H2, 1N1 and 1N2	**Drums:** 1A1, 1A2, 1B1, 1B2, 1D (with inner plastic liner), 1G (with inner plastic liner), 1H1, 1H2, 1N1 and 1N2
-	-	**Jerricans:** 3A1, 3A2, 3B1, 3B2, 3H1, and 3H2	**Jerricans:** 3A1, 3A2, 3B1, 3B2, 3H1, and 3H2	**Jerricans:** 3A1, 3A2, 3B1, 3B2, 3H1, and 3H2	**Jerricans:** 3A1, 3A2, 3B1, 3B2, 3H1, and 3H2
-	-	**Composites (plastic):** 6HA1, 6HB1, 6HG1, 6HH1, 6HD1, 6H2, 6HB2, 6HC, 6HD2, 6HG2, and 6HH2	**Composites (plastic):** 6HA1, 6HB1, 6HG1, 6HH1, 6HD1, 6H2, 6HB2, 6HC, 6HD2, 6HG2, and 6HH2.	**Composites (plastic):** 6HA1, 6HB1, 6HG1, 6HH1, 6HD1, 6H2, 6HB2, 6HC, 6HD2, 6HG2, and 6HH2.	**Composites (plastic):** 6HA1, 6HB1, 6HG1, 6HH1, 6HD1, 6H2, 6HB2, 6HC, 6HD2, 6HG2, and 6HH2

Particular Packaging Requirements:

PPR6X3-1 For UN 1699, 2471, 3048 and 3146 PG I and II, glass or earthenware inner packagings must be packed with cushioning material in tightly closed metal or rigid plastic receptacles before packing in outer packaging.

PPR6X3-2 For UN 3249 PG III, the inner packagings must not exceed the quantity amounts authorized for PG II material. Bags are not permitted as a single packaging.

PPR6X3-3 For UN 1751, only glass or earthenware, plastic or metal (no aluminium) inner packagings are permitted. Aluminium, fibre, and plywood single packagings are not permitted.

PPR6X3-4 For UN 2730, only glass or earthenware, plastic or metal inner packagings are permitted. Bags, fibre, and plywood

single packagings are not permitted.
PPR6X3-5 For UN 2471, only glass or earthenware and plastic inner packagings are permitted. Inner packaging quantity amounts must not exceed 0.5 kg. Single packaging is not permitted.
PPR6X3-6 For UN 3146 PG I and II, only glass or earthenware, plastic or metal (no aluminium) inner packagings are permitted. Aluminium, plywood, fibre and plastic single packagings are not permitted for PG I and II. Single packagings are not permitted for PG I.
PPR6X3-7 For UN1697, only glass or earthenware and metal (not aluminium) inner packagings are permitted. Aluminium, plywood, fibre and plastic single packagings are not permitted.
PPR6X3-8 For UN 1699, only glass or earthenware and metal (not aluminium) inner packagings are permitted. Inner packaging quantity amounts must not exceed 0.5 kg. Single packaging is not permitted.
PPR6X3-9 For UN 3048, only glass or earthenware, plastic and metal inner packagings are permitted.

Notes: This instruction combines existing packing instructions 606, 607, 608, 613, 614, 615, 616, and 619.
- PPR6X3-1 is the former PPR9
- PPR6X3-2 is a quantity and outer package type restriction. **[The working group should consider if the quantity restriction on UN3249 Medicine, solid, toxic, NOS, PGIII is justified].**
- PPR6X3-3 and PPR6X3-4 are quantity and packaging type restrictions from the existing packaging instructions.
- PPR6X3-5 is a quantity and inner package type restriction. **[The working group should consider if the quantity restriction on UN2471 Osmium tetroxide PGI is justified].**
- PPR6X3-6 and PPR6X3-7 are quantity and packaging type restrictions from the existing packaging instructions.
- PPR6X3-8 is a quantity and inner package type restriction. **[Restrictions seem justified due to the possibility of evolving tear gas like vapors. The working group should note that there appears to be some inconsistencies on how similar tear gas type substances are treated in the TI. For example, for UN1693, 1694, 1697, 1698, 1699, and 1722, requirements vary for quantity and authorized single packagings. We recommend any substance with the potential to produce tear gas like vapor should be treated with equivalent safety measures (i.e., should not be authorized in single packaging).**
- PPR6X3-9 are packaging type restrictions from the existing packaging instructions. .
- Inner package quantity limits were not changed (with the exception of the UN numbers suggested below). - Inner packaging IP8 removed, now included in IP1 definition.
Added outer packagings to harmonize with UN Model Regulations: Boxes, Expanded Plastic (4H1), Drums Other Metal (1N2).
- Added single packagings to harmonize with UN Model Regulations: Drums 1N1, Jerricans 3B1.
- Added specification codes for composite plastic single packagings.
the following PPR was judged to be a compatibility issue and has been removed from the packing instruction (from PI 614 and 616):
- PPR 5 Steel packagings must be corrosion resistant or with protection from corrosion (applies to UN 1751).
- We have proposed increases in quantity limits for two toxic solid materials. The following UN numbers are currently assigned inner packaging quantity limits that appear inconsistent with other Division 6.1 materials with similar properties. We are proposing to align these substances which will result in increasing the inner quantity limits as identified in PI 6X3. Adding additionally authorized packaging types is not proposed.
- The working group should consider whether the inner packaging quantity limits could be harmonized for this group of substances.

Substances and current inner quantity limits:

UN#	ICAO PSN	PG	CLASS	SUB	PASS PI	CARGO PI
UN3048	ALUMINIUM PHOSPHIDE PESTICIDE	I	6.1		FORBIDDEN	616
UN3146	ORGANOTIN COMPOUND, SOLID, N.O.S.	I	6.1		608	608
UN3146	ORGANOTIN COMPOUND, SOLID, N.O.S.	II	6.1		614	616

	Glass or Earthenware (IP1)		***Plastic (IP2)***		***Metal (IP3)***		***Aluminium (IP.3)***	
UN No.	*Passenger*	*Cargo*	*Passenger*	*Cargo*	*Passenger*	*Cargo*	*Passenger*	*Cargo*
3048	-	1 kg	-	1 kg	-	1 kg	-	1 kg
3146 (PG I)	0.5 kg	0.5 kg	0.5 kg	0.5 kg	0.5 kg	0.5 kg	-	-
3146 (PGII)	1 kg	2.5 kg	1 kg	2.5 kg	1 kg	2.5 kg	-	-

Similar materials used for comparison include:

UN#	ICAO PSN	PG	CLASS	SUB	PASS PI	CARGO PI
UN2761	ORGANOCHLORINE PESTICIDE, SOLID, TOXIC*	I	6.1		606	607
UN2763	TRIAZINE PESTICIDE, SOLID, TOXIC*	I	6.1		606	607
UN2765	PHENOXY PESTICIDE, SOLID, TOXIC*	I	6.1		606	607
UN2771	DITHIOCARBAMATE, PESTICIDE, SOLID, TOXIC*	I	6.1		606	607
UN2783	ORGANOPHOSPHORUS PESTICIDE, SOLID, TOXIC*	I	6.1		606	607
UN2786	ORGANOTIN PESTICIDE, SOLID, TOXIC*	I	6.1		606	607
UN2811	TOXIC SOLID, ORGANIC, N.O.S.*	I	6.1		606	607
UN3278	ORGANOPHOSPHORUS COMPOUND, TOXIC, N.O.S.* solid	I	6.1		606	607
UN3283	SELENIUM COMPOUND, N.O.S.	I	6.1		606	607
UN3288	TOXIC SOLID, INORGANIC, N.O.S.*	I	6.1		606	607
UN3290	TOXIC SOLID, CORROSIVE, INORGANIC, N.O.S.*	I	6.1	8	606	607
UN3345	PHENOXYACETIC ACID DERIVATIVE PESTICIDE, SOLID, TOXIC*	I	6.1		606	607
UN3349	PYRETHROID PESTICIDE, SOLID, TOXIC*	I	6.1		606	607
UN1611	HEXAETHYL TETRAPHOSPHATE, SOLID	II	6.1		613	615

The substances that would be assigned to 6X3 are:

Substances Assigned to 6X3						
UN#	**ICAO PSN**	**PG**	**CLASS**	**SUB**	**PASS PI**	**CARGO PI**
UN1544	ALKALOIDS, SOLID, N.O.S.*	I	6.1		606	607
UN1557	ARSENIC COMPOUND, SOLID, N.O.S.	I	6.1		606	607
UN1565	BARIUM CYANIDE	I	6.1		606	607
UN1570	BRUCINE	I	6.1		606	607
UN1575	CALCIUM CYANIDE	I	6.1		606	607
UN1588	CYANIDES, INORGANIC, SOLID, N.O.S.*	I	6.1		606	607
UN1601	DISINFECTANTS, SOLID,TOXIC, N.O.S.	I	6.1		606	607

UN1626	MERCURIC POTASSIUM CYANIDE	I	6.1		606	607
UN1655	NICOTINE COMPOUND, SOLID, N.O.S.	I	6.1		606	607
UN1680	POTASSIUM CYANIDE	I	6.1		606	607
UN1689	SODIUM CYANIDE	I	6.1		606	607
UN1692	STRYCHNINE	I	6.1		606	607
UN1693	TEAR GAS SUBSTANCE, SOLID, N.O.S.*	I	6.1		FORBIDDEN	607
UN1694	BROMOBENZYL CYANIDES, SOLID	I	6.1		606	607
UN1699	DIPHENYLCHLOROARSINE, SOLID	I	6.1		FORBIDDEN	608
UN1713	ZINC CYANIDE	I	6.1		606	607
UN2025	MERCURY COMPOUND, SOLID, N.O.S.	I	6.1		606	607
UN2026	PHENYLMERCURIC COMPOUND, N.O.S.	I	6.1		606	607
UN2316	SODIUM CUPROCYANIDE, SOLID	I	6.1		606	607
UN2471	OSMIUM TETROXIDE	I	6.1		608	608
UN2570	CADMIUM COMPOUND	I	6.1		606	607
UN2588	PESTICIDE, SOLID, TOXIC, N.O.S.*	I	6.1		606	607
UN2628	POTASSIUM FLUOROACETATE	I	6.1		606	607
UN2629	SODIUM FLUOROACETATE	I	6.1		606	607
UN2630	SELENATES	I	6.1		606	607
UN2642	FLUOROACETIC ACID	I	6.1		606	607
UN2757	CARBAMATE PESTICIDE, SOLID, TOXIC*	I	6.1		606	607
UN2759	ARSENICAL PESTICIDE, SOLID, TOXIC*	I	6.1		606	607
UN2761	ORGANOCHLORINE PESTICIDE, SOLID, TOXIC*	I	6.1		606	607
UN2763	TRIAZINE PESTICIDE, SOLID, TOXIC*	I	6.1		606	607
UN2765	PHENOXY PESTICIDE, SOLID, TOXIC*	I	6.1		606	607
UN2767	PHENYL UREA PESTICIDE, SOLID, TOXIC*	I	6.1		606	607
UN2769	BENZOIC DERIVATIVE PESTICIDE, SOLID, TOXIC*	I	6.1		606	607
UN2771	THIOCARBAMATE PESTICIDE, SOLID, TOXIC*	I	6.1		606	607
UN2771	DITHIOCARBAMATE, PESTICIDE, SOLID, TOXIC*	I	6.1		606	607
UN2773	PHTHALIMIDE DERIVATIVE PESTICIDE, SOLID, TOXIC*	I	6.1		606	607
UN2775	COPPER BASED PESTICIDE,	I	6.1		606	607

	SOLID, TOXIC*					
UN2777	MERCURY BASED PESTICIDE, SOLID, TOXIC*	I	6.1		606	607
UN2779	SUBSTITUTED NITROPHENOL PESTICIDE, SOLID, TOXIC*	I	6.1		606	607
UN2781	BIPYRIDILIUM PESTICIDE, SOLID, TOXIC*.	I	6.1		606	607
UN2783	ORGANOPHOSPHORUS PESTICIDE, SOLID, TOXIC*	I	6.1		606	607
UN2786	ORGANOTIN PESTICIDE, SOLID, TOXIC*	I	6.1		606	607
UN2811	TOXIC SOLID, ORGANIC, N.O.S.*	I	6.1		606	607
UN2928	TOXIC SOLID, CORROSIVE, ORGANIC, N.O.S.*	I	6.1	8	606	607
UN2930	TOXIC SOLID, FLAMMABLE, ORGANIC, N.O.S.*	I	6.1	4.1	606	607
UN3027	COUMARIN DERIVATIVE PESTICIDE, SOLID, TOXIC*	I	6.1		606	607
UN3048	ALUMINIUM PHOSPHIDE PESTICIDE	I	6.1		FORBIDDEN	616
UN3086	TOXIC SOLID, OXIDIZING, N.O.S.*	I	6.1	5.1	606	607
UN3124	TOXIC SOLID, SELF-HEATING, N.O.S.*	I	6.1	4.2	606	607
UN3125	TOXIC SOLID, WATER-REACTIVE, N.O.S.*	I	6.1	4.3	606	607
UN3143	DYE, SOLID, TOXIC, N.O.S.*	I	6.1		606	607
UN3146	ORGANOTIN COMPOUND, SOLID, N.O.S.	I	6.1		608	608
UN3172	TOXINS, EXTRACTED FROM LIVING SOURCES, SOLID, N.O.S.	I	6.1		606	607
UN3276	NITRILES, TOXIC, N.O.S.*, solid	I	6.1		606	607
UN3278	ORGANOPHOSPHORUS COMPOUND, TOXIC, N.O.S.* solid	I	6.1		606	607
UN3280	ORGANOARSENIC COMPOUND, N.O.S.*, SOLID	I	6.1		606	607
UN3281	METAL CARBONYLS, N.O.S.*, solid	I	3281	6.1	606	607
UN3282	ORGANOMETALLIC COMPOUND, TOXIC, N.O.S.*, solid	I	6.1		606	607
UN3283	SELENIUM COMPOUND, N.O.S.	I	6.1		606	607
UN3284	TELLURIUM COMPOUND, N.O.S.	I	6.1		606	607
UN3285	VANADIUM COMPOUND, N.O.S.	I	6.1		606	607
UN3288	TOXIC SOLID, INORGANIC, N.O.S.*	I	6.1		606	607
UN3290	TOXIC SOLID, CORROSIVE,	I	6.1	8	606	607

	INORGANIC, N.O.S.*					
UN3345	PHENOXYACETIC ACID DERIVATIVE PESTICIDE, SOLID, TOXIC*	I	6.1		606	607
UN3349	PYRETHROID PESTICIDE, SOLID, TOXIC*	I	6.1		606	607
UN1546	AMMONIUM ARSENATE	II	6.1		613	615
UN1554	ARSENIC ACID, SOLID	II	6.1		613	615
UN1555	ARSENIC BROMIDE	II	6.1		613	615
UN1558	ARSENIC	II	6.1		613	615
UN1559	ARSENIC PENTOXIDE	II	6.1		613	615
UN1561	ARSENIC TRIOXIDE	II	6.1		613	615
UN1562	ARSENICAL DUST	II	6.1		613	615
UN1564	BARIUM COMPOUND, N.O.S.	II	6.1		613	615
UN1566	BERYLLIUM COMPOUND, N.O.S.	II	6.1		613	615
UN1567	BERYLLIUM POWDER	II	6.1	4.1	613	615
UN1572	CACODYLIC ACID	II	6.1		613	615
UN1573	CALCIUM ARSENATE	II	6.1		613	615
UN1574	CALCIUM ARSENATE AND CALCIUM ARSENITE MIXTURE, SOLID	II	6.1		613	615
UN1577	CHLORODINITROBENZENES, SOLID	II	6.1		613	615
UN1578	CHLORONITROBENZENES, SOLID	II	6.1		613	615
UN1585	COPPER ACETOARSENITE	II	6.1		613	615
UN1586	COPPER ARSENITE	II	6.1		613	615
UN1587	COPPER CYANIDE	II	6.1		613	615
UN1590	DICHLOROANILINES, SOLID	II	6.1		613	615
UN1596	DINITROANILINES	II	6.1		613	615
UN1597	DINITROBENZENES, SOLID	II	6.1		613	615
UN1598	DINITRO-o-CRESOL, SOLID	II	6.1		613	615
UN1606	FERRIC ARSENATE	II	6.1		613	615
UN1607	FERRIC ARSENITE	II	6.1		613	615
UN1608	FERROUS ARSENATE	II	6.1		613	615
UN1611	HEXAETHYL TETRAPHOSPHATE, SOLID	II	6.1		613	615
UN1617	LEAD ARSENATES	II	6.1		613	615
UN1618	LEAD ARSENITES	II	6.1		613	615
UN1620	LEAD CYANIDE	II	6.1		613	615
UN1621	LONDON PURPLE	II	6.1		613	615
UN1622	MAGNESIUM ARSENATE	II	6.1		613	615
UN1623	MERCURIC ARSENATE	II	6.1		613	615
UN1624	MERCURIC CHLORIDE	II	6.1		613	615
UN1625	MERCURIC NITRATE	II	6.1		613	615
UN1627	MERCUROUS NITRATE	II	6.1		613	615
UN1629	MERCURY ACETATE	II	6.1		613	615

UN1630	MERCURY AMMONIUM CHLORIDE	II	6.1		613	615
UN1631	MERCURY BENZOATE	II	6.1		613	615
UN1634	MERCURY BROMIDES	II	6.1		613	615
UN1636	MERCURY CYANIDE	II	6.1		613	615
UN1637	MERCURY GLUCONATE	II	6.1		613	615
UN1638	MERCURY IODIDE solid	II	6.1		613	615
UN1639	MERCURY NUCLEATE	II	6.1		613	615
UN1640	MERCURY OLEATE	II	6.1		613	615
UN1641	MERCURY OXIDE	II	6.1		613	615
UN1642	MERCURY OXYCYANIDE, DESENSITIZED	II	6.1		613	615
UN1643	MERCURY POTASSIUM IODIDE	II	6.1		613	615
UN1644	MERCURY SALICYLATE	II	6.1		613	615
UN1645	MERCURY SULPHATE	II	6.1		613	615
UN1646	MERCURY THIOCYANATE	II	6.1		613	615
UN1650	beta-NAPHTHYLAMINE	II	6.1		613	615
UN1651	NAPHTHYLTHIOUREA	II	6.1		613	615
UN1652	NAPHTHYLUREA	II	6.1		613	615
UN1653	NICKEL CYANIDE	II	6.1		613	615
UN1657	NICOTINE SALICYLATE	II	6.1		613	615
UN1658	NICOTINE SULPHATE, SOLID	II	6.1		613	615
UN1659	NICOTINE TARTRATE	II	6.1		613	615
UN1661	NITROANILINES	II	6.1		613	615
UN1664	NITROTOLUENES, SOLID	II	6.1		613	615
UN1665	NITROXYLENES, SOLID	II	6.1		613	615
UN1671	PHENOL, SOLID	II	6.1		613	615
UN1674	PHENYLMERCURIC ACETATE	II	6.1		613	615
UN1677	POTASSIUM ARSENATE	II	6.1		613	615
UN1678	POTASSIUM ARSENITE	II	6.1		613	615
UN1679	POTASSIUM CUPROCYANIDE	II	6.1		613	615
UN1683	SILVER ARSENITE	II	6.1		613	615
UN1684	SILVER CYANIDE	II	6.1		613	615
UN1685	SODIUM ARSENATE	II	6.1		613	615
UN1687	SODIUM AZIDE	II	6.1		613	615
UN1688	SODIUM CACODYLATE	II	6.1		613	615
UN1691	STRONTIUM ARSENITE	II	6.1		613	615
UN1693	TEAR GAS SUBSTANCE, SOLID, N.O.S.*	II	6.1		FORBIDDEN	615
UN1697	CHLOROACETOPHENONE, SOLID	II	6.1		FORBID DEN	616
UN1707	THALLIUM COMPOUND, N.O.S.	II	6.1		613	615
UN1708	TOLUIDINES, SOLID	II	6.1		613	615
UN1711	XYLIDINES, SOLID	II	6.1		613	615
UN1712	ZINC ARSENATE	II	6.1		613	615
UN1751	CHLOROACETIC ACID, SOLID	II	6.1	8	614	616
UN1843	AMMONIUM DINITRO-o-CRESOLATE	II	6.1		613	615

UN1885	BENZIDINE	II	6.1		613	615
UN1894	PHENYLMERCURIC HYDROXIDE	II	6.1		613	615
UN1895	PHENYLMERCURIC NITRATE	II	6.1		613	615
UN2018	CHLOROANILINES, SOLID	II	6.1		613	615
UN2027	SODIUM ARSENITE, SOLID	II	6.1		613	615
UN2038	DINITROTOLUENES, SOLID	II	6.1		613	615
UN2076	CRESOLS, SOLID	II	6.1	8	613	615
UN2250	DICHLOROPHENYL ISOCYANATES	II	6.1		613	615
UN2261	XYLENOLS	II	6.1		613	615
UN2567	SODIUM PENTACHLOROPHENATE	II	6.1		613	615
UN2587	BENZOQUINONE	II	6.1		613	615
UN2645	PHENACYL BROMIDE	II	6.1		613	615
UN2647	MALONONITRILE	II	6.1		613	615
UN2649	1,3-DICHLOROACETONE	II	6.1		613	615
UN2657	SELENIUM DISULPHIDE	II	6.1		613	615
UN2669	CHLOROCRESOLS, SOLID	II	6.1		613	615
UN2671	AMINOPYRIDINES (o-m-p-)	II	6.1		613	615
UN2673	2-AMINO-4-CHLOROPHENOL	II	6.1		613	615
UN2727	THALLIUM NITRATE	II	6.1	5.1	613	615
UN2859	AMMONIUM METAVANADATE	II	6.1		613	615
UN2861	AMMONIUM POLYVANADATE	II	6.1		613	615
UN2863	SODIUM AMMONIUM VANADATE	II	6.1		613	615
UN2864	POTASSIUM METAVANADATE	II	6.1		613	615
UN2928	TOXIC SOLID, CORROSIVE, ORGANIC, N.O.S.*	II	6.1	8	613	615
UN2930	TOXIC SOLID, FLAMMABLE, ORGANIC, N.O.S.*	II	6.1	4.1	613	615
UN2931	VANADYL SULPHATE	II	6.1		613	615
UN3086	TOXIC SOLID, OXIDIZING, N.O.S.*	II	6.1	5.1	613	615
UN3124	TOXIC SOLID, SELF-HEATING, N.O.S.*	II	6.1	4.2	613	615
UN3125	TOXIC SOLID, WATER-REACTIVE, N.O.S.*	II	6.1	4.3	613	615
UN3155	PENTACHLOROPHENOL	II	6.1		613	615
UN3243	SOLIDS CONTAINING TOXIC LIQUID, N.O.S.*	II	6.1		613	615
UN3249	MEDICINE, SOLID, TOXIC, N.O.S.	II	6.1		613	615
UN3290	TOXIC SOLID, CORROSIVE, INORGANIC, N.O.S.*	II	6.1	8	613	615
UN1544	ALKALOIDS, SOLID, N.O.S.*	III	6.1		619	619
UN1544	ALKALOID SALTS, SOLID, N.O.S.*	III	6.1		619	619
UN1548	ANILINE HYDROCHLORIDE	III	6.1		619	619

UN1549	ANTIMONY COMPOUND, INORGANIC, SOLID, N.O.S.	III	6.1		619	619
UN1550	ANTIMONY LACTATE	III	6.1		619	619
UN1551	ANTIMONY POTASSIUM TARTRATE	III	6.1		619	619
UN1556	ARSENIC COMPOUND, LIQUID, N.O.S.	III	6.1		611	618
UN1556	ARSENIC COMPOUND, LIQUID, N.O.S.	III	6.1		611	618
UN1557	ARSENIC COMPOUND, SOLID, N.O.S.	III	6.1		619	619
UN1557	ARSENIC COMPOUND, SOLID, N.O.S.	III	6.1		619	619
UN1564	BARIUM COMPOUND, N.O.S.	III	6.1		619	619
UN1566	BERYLLIUM COMPOUND, N.O.S.	III	6.1		619	619
UN1579	4-CHLORO-o-TOLUIDINE HYDROCHLORIDE	III	6.1		619	619
UN1588	CYANIDES, INORGANIC, SOLID, N.O.S.*	III	6.1		619	619
UN1588	CYANIDES, INORGANIC, SOLID, N.O.S.*	III	6.1		619	619
UN1591	o-DICHLOROBENZENE	III	6.1		611	618
UN1599	DINITROPHENOL SOLUTION	III	6.1		611	618
UN1601	DISINFECTANTS, SOLID,TOXIC, N.O.S.	III	6.1		619	619
UN1601	DISINFECTANTS, SOLID,TOXIC, N.O.S.	III	6.1		619	619
UN1602	DYE, LIQUID, TOXIC, N.O.S.*	III	6.1		611	618
UN1602	DYE INTERMEDIATE, LIQUID, TOXIC, N.O.S.*	III	6.1		611	618
UN1616	LEAD ACETATE	III	6.1		619	619
UN1655	NICOTINE PREPARATION, SOLID, N.O.S.	III	6.1		619	619
UN1655	NICOTINE COMPOUND, SOLID, N.O.S.	III	6.1		619	619
UN1663	NITROPHENOLS	III	6.1		619	619
UN1673	PHENYLENEDIAMINES	III	6.1		619	619
UN1686	SODIUM ARSENITE, AQUEOUS SOLUTION	III	6.1		611	618
UN1690	SODIUM FLUORIDE	III	6.1		619	619
UN1709	2,4-TOLUYLENEDIAMINE	III	6.1		619	619
UN1812	POTASSIUM FLUORIDE	III	6.1		619	619
UN1884	BARIUM OXIDE	III	6.1		619	619
UN1887	BROMOCHLOROMETHANE	III	6.1		611	618
UN2020	CHLOROPHENOLS, SOLID	III	6.1		619	619
UN2021	CHLOROPHENOLS, LIQUID	III	6.1		611	618
UN2025	MERCURY COMPOUND, SOLID, N.O.S.	III	6.1		619	619

UN2025	MERCURY COMPOUND, SOLID, N.O.S.	III	6.1		619	619
UN2026	PHENYLMERCURIC COMPOUND, N.O.S.	III	6.1		619	619
UN2026	PHENYLMERCURIC COMPOUND, N.O.S.	III	6.1		619	619
UN2074	ACRYLAMIDE	III	6.1		619	619
UN2077	alpha-NAPHTHYLAMINE	III	6.1		619	619
UN2205	ADIPONITRILE	III	6.1		611	618
UN2206	ISOCYANATES, TOXIC, N.O.S.*	III	6.1		611	618
UN2207	ISOCYANATES, N.O.S.*, boiling point not less than 300 degrees C	III	6.1		611	618
UN2233	CHLOROANISIDINES	III	6.1		619	619
UN2235	CHLOROBENZYL CHLORIDES	III	6.1		611	618
UN2237	CHLORONITROANILINES	III	6.1		619	619
UN2239	CHLOROTOLUIDINES, SOLID	III	6.1		619	619
UN2239	CHLOROTOLUIDINES, LIQUID	III	6.1		611	618
UN2272	N-ETHYLANILINE	III	6.1		611	618
UN2273	2-ETHYLANILINE	III	6.1		611	618
UN2274	N-ETHYL-N-BENZYLANILINE	III	6.1		611	618
UN2279	HEXACHLOROBUTADIENE	III	6.1		611	618
UN2290	ISOPHORONE DIISOCYANATE	III	6.1		611	618
UN2291	LEAD COMPOUND, SOLUBLE, N.O.S.	III	6.1		619	619
UN2294	N-METHYLANILINE	III	6.1		611	618
UN2299	METHYL DICHLOROACETATE	III	6.1		611	618
UN2300	2-METHYL-5-ETHYLPYRIDINE	III	6.1		611	618
UN2311	PHENETIDINES	III	6.1		611	618
UN2321	TRICHLOROBENZENES, LIQUID	III	6.1		611	618
UN2328	TRIMETHYLHEXAMETHYLENE DIISOCYANATE	III	6.1		611	618
UN2431	ANISIDINES, LIQUID	III	6.1		611	618
UN2431	ANISIDINES, SOLID	III	6.1		619	619
UN2432	N,N-DIETHYLANILINE	III	6.1		611	618
UN2433	CHLORONITROTOLUENES, LIQUID	III	6.1		611	618
UN2433	CHLORONITROTOLUENES, SOLID	III	6.1		619	619
UN2446	NITROCRESOLS	III	6.1		619	619
UN2470	PHENYLACETONITRILE, LIQUID	III	6.1		611	618
UN2473	SODIUM ARSANILATE	III	6.1		619	619
UN2501	TRIS-(1-AZIRIDINYL) PHOSPHINE OXIDE SOLUTION	III	6.1		611	618
UN2504	TETRABROMOETHANE	III	6.1		611	618
UN2505	AMMONIUM FLUORIDE	III	6.1		619	619
UN2512	AMINOPHENOLS (o-,m-,p-)	III	6.1		619	619
UN2515	BROMOFORM	III	6.1		611	618

UN2516	CARBON TETRABROMIDE	III	6.1		619	619
UN2518	1,5,9-CYCLODODECATRIENE	III	6.1		611	618
UN2525	ETHYL OXALATE	III	6.1		611	618
UN2533	METHYL TRICHLOROACETATE	III	6.1		611	618
UN2570	CADMIUM COMPOUND	III	6.1		619	619
UN2570	CADMIUM COMPOUND	III	6.1		619	619
UN2588	PESTICIDE, SOLID, TOXIC, N.O.S.*	III	6.1		619	619
UN2588	PESTICIDE, SOLID, TOXIC, N.O.S.*	III	6.1		619	619
UN2609	TRIALLYL BORATE	III	6.1		611	618
UN2651	4,4'-DIAMINODIPHENYLMETHANE	III	6.1		619	619
UN2655	POTASSIUM FLUOROSILICATE	III	6.1		619	619
UN2656	QUINOLINE	III	6.1		611	618
UN2658	SELENIUM POWDER	III	6.1		619	619
UN2659	SODIUM CHLOROACETATE	III	6.1		619	619
UN2660	NITROTOLUIDINES (MONO)	III	6.1		619	619
UN2661	HEXACHLOROACETONE	III	6.1		611	618
UN2662	HYDROQUINONE	III	6.1		619	619
UN2664	DIBROMOMETHANE	III	6.1		611	618
UN2666	ETHYL CYANOACETATE	III	6.1		611	618
UN2667	BUTYLTOLUENES	III	6.1		611	618
UN2674	SODIUM FLUOROSILICATE	III	6.1		619	619
UN2688	1-BROMO-3-CHLOROPROPANE	III	6.1		611	618
UN2689	GLYCEROL alpha-MONOCHLOROHYDRIN	III	6.1		611	618
UN2713	ACRIDINE	III	6.1		619	619
UN2716	1,4-BUTYNEDIOL	III	6.1		619	619
UN2729	HEXACHLOROBENZENE	III	6.1		619	619
UN2730	NITROANISOLE, LIQUID	III	6.1		611	618
UN2732	NITROBROMOBENZENE, SOLID	III	6.1		619	619
UN2732	NITROBROMOBENZENE, LIQUID	III	6.1		611	618
UN2747	tert-BUTYLCYCLOHEXYL CHLOROFORMATE	III	6.1		611	618
UN2753	N-ETHYLBENZYLTOLUIDINES, SOLID	III	6.1		619	619
UN2753	N-ETHYLBENZYLTOLUIDINES, LIQUID	III	6.1		611	618
UN2757	CARBAMATE PESTICIDE, SOLID, TOXIC*	III	6.1		619	619
UN2757	CARBAMATE PESTICIDE, SOLID, TOXIC*	III	6.1		619	619
UN2759	ARSENICAL PESTICIDE, SOLID, TOXIC*	III	6.1		619	619
UN2759	ARSENICAL PESTICIDE, SOLID, TOXIC*	III	6.1		619	619
UN2761	ORGANOCHLORINE PESTICIDE,	III	6.1		619	619

	SOLID, TOXIC*					
UN2761	ORGANOCHLORINE PESTICIDE, SOLID, TOXIC*	III	6.1		619	619
UN2763	TRIAZINE PESTICIDE, SOLID, TOXIC*	III	6.1		619	619
UN2763	TRIAZINE PESTICIDE, SOLID, TOXIC*	III	6.1		619	619
UN2765	PHENOXY PESTICIDE, SOLID, TOXIC*	III	6.1		619	619
UN2765	PHENOXY PESTICIDE, SOLID, TOXIC*	III	6.1		619	619
UN2767	PHENYL UREA PESTICIDE, SOLID, TOXIC*	III	6.1		619	619
UN2767	PHENYL UREA PESTICIDE, SOLID, TOXIC*	III	6.1		619	619
UN2769	BENZOIC DERIVATIVE PESTICIDE, SOLID, TOXIC*	III	6.1		619	619
UN2769	BENZOIC DERIVATIVE PESTICIDE, SOLID, TOXIC*	III	6.1		619	619
UN2771	THIOCARBAMATE PESTICIDE, SOLID, TOXIC*	III	6.1		619	619
UN2771	THIOCARBAMATE PESTICIDE, SOLID, TOXIC*	III	6.1		619	619
UN2771		III	6.1		619	619
UN2771		III	6.1		619	619
UN2773	PHTHALIMIDE DERIVATIVE PESTICIDE, SOLID, TOXIC*	III	6.1		619	619
UN2773	PHTHALIMIDE DERIVATIVE PESTICIDE, SOLID, TOXIC*	III	6.1		619	619
UN2775	COPPER BASED PESTICIDE, SOLID, TOXIC*	III	6.1		619	619
UN2775	COPPER BASED PESTICIDE, SOLID, TOXIC*	III	6.1		619	619
UN2777	MERCURY BASED PESTICIDE, SOLID, TOXIC*	III	6.1		619	619
UN2777	MERCURY BASED PESTICIDE, SOLID, TOXIC*	III	6.1		619	619
UN2779	SUBSTITUTED NITROPHENOL PESTICIDE, SOLID, TOXIC*	III	6.1		619	619
UN2779	SUBSTITUTED NITROPHENOL PESTICIDE, SOLID, TOXIC*	III	6.1		619	619
UN2781	BIPYRIDILIUM PESTICIDE, SOLID, TOXIC*.	III	6.1		619	619
UN2781	BIPYRIDILIUM PESTICIDE, SOLID, TOXIC*.	III	6.1		619	619
UN2783	ORGANOPHOSPHORUS PESTICIDE, SOLID, TOXIC*	III	6.1		619	619
UN2783	ORGANOPHOSPHORUS PESTICIDE, SOLID, TOXIC*	III	6.1		619	619

UN2785	4-THIAPENTANAL	III	6.1		611	618
UN2786	ORGANOTIN PESTICIDE, SOLID, TOXIC*	III	6.1		619	619
UN2786	ORGANOTIN PESTICIDE, SOLID, TOXIC*	III	6.1		619	619
UN2788	ORGANOTIN COMPOUND, LIQUID, N.O.S.	III	6.1		611	618
UN2788	ORGANOTIN COMPOUND, LIQUID, N.O.S.	III	6.1		611	618
UN2810	TOXIC LIQUID, ORGANIC, N.O.S.*	III	6.1		611	618
UN2810	TOXIC LIQUID, ORGANIC, N.O.S.*	III	6.1		611	618
UN2811	TOXIC SOLID, ORGANIC, N.O.S.*	III	6.1		619	619
UN2811	TOXIC SOLID, ORGANIC, N.O.S.*	III	6.1		619	619
UN2821	PHENOL SOLUTION	III	6.1		611	618
UN2849	3-CHLOROPROPANOL-1	III	6.1		611	618
UN2853	MAGNESIUM FLUOROSILICATE	III	6.1		619	619
UN2854	AMMONIUM FLUOROSILICATE	III	6.1		619	619
UN2855	ZINC FLUOROSILICATE	III	6.1		619	619
UN2856	FLUOROSILICATES, N.O.S.	III	6.1		619	619
UN2862	VANADIUM PENTOXIDE	III	6.1		619	619
UN2871	ANTIMONY POWDER	III	6.1		619	619
UN2872	DIBROMOCHLOROPROPANES	III	6.1		611	618
UN2873	DIBUTYLAMINOETHANOL	III	6.1		611	618
UN2874	FURFURYL ALCOHOL	III	6.1		611	618
UN2875	HEXACHLOROPHENE	III	6.1		619	619
UN2876	RESORCINOL	III	6.1		619	619
UN2902	PESTICIDE, LIQUID, TOXIC, N.O.S.*	III	6.1		611	618
UN2902	PESTICIDE, LIQUID, TOXIC, N.O.S.*	III	6.1		611	618
UN2903	PESTICIDE, LIQUID, TOXIC, FLAMMABLE, N.O.S.*	III	6.1	3	611	618
UN2903	PESTICIDE, LIQUID, TOXIC, FLAMMABLE, N.O.S.*	III	6.1	3	611	618
UN2937	alpha-METHYLBENZYL ALCOHOL	III	6.1		611	618
UN2938	METHYL BENZOATE	III	6.1		611	618
UN2941	FLUOROANILINES	III	6.1		611	618
UN2942	2-TRIFLUOROMETHYLANILINE	III	6.1		611	618
UN2946	2-AMINO-5-DIETHYLAMINOPENTANE	III	6.1		611	618
UN2991	CARBAMATE PESTICIDE, LIQUID, TOXIC, FLAMMABLE*	III	6.1	3	611	618
UN2991	CARBAMATE PESTICIDE, LIQUID, TOXIC, FLAMMABLE*	III	6.1	3	611	618

UN2992	CARBAMATE PESTICIDE, LIQUID, TOXIC*	III	6.1		611	618
UN2992	CARBAMATE PESTICIDE, LIQUID, TOXIC*	III	6.1		611	618
UN2993	ARSENICAL PESTICIDE, LIQUID, TOXIC, FLAMMABLE*	III	6.1	3	611	618
UN2993	ARSENICAL PESTICIDE, LIQUID, TOXIC, FLAMMABLE*	III	6.1	3	611	618
UN2994	ARSENICAL PESTICIDE, LIQUID, TOXIC*.	III	6.1		611	618
UN2994	ARSENICAL PESTICIDE, LIQUID, TOXIC*.	III	6.1		611	618
UN2995	ORGANOCHLORINE PESTICIDE, LIQUID, TOXIC, FLAMMABLE*	III	6.1	3	611	618
UN2995	ORGANOCHLORINE PESTICIDE, LIQUID, TOXIC, FLAMMABLE*	III	6.1	3	611	618
UN2996	ORGANOCHLORINE PESTICIDE, LIQUID, TOXIC*	III	6.1		611	618
UN2996	ORGANOCHLORINE PESTICIDE, LIQUID, TOXIC*	III	6.1		611	618
UN2997	TRIAZINE PESTICIDE, LIQUID, TOXIC, FLAMMABLE*	III	6.1	3	611	618
UN2997	TRIAZINE PESTICIDE, LIQUID, TOXIC, FLAMMABLE*	III	6.1	3	611	618
UN2998	TRIAZINE PESTICIDE, LIQUID TOXIC*	III	6.1		611	618
UN2998	TRIAZINE PESTICIDE, LIQUID TOXIC*	III	6.1		611	618
UN2999	PHENOXY PESTICIDE, LIQUID, TOXIC, FLAMMABLE*	III	6.1	3	611	618
UN2999	PHENOXY PESTICIDE, LIQUID, TOXIC, FLAMMABLE*	III	6.1	3	611	618
UN3000	PHENOXY PESTICIDE, LIQUID, TOXIC*	III	6.1		611	618
UN3000	PHENOXY PESTICIDE, LIQUID, TOXIC*	III	6.1		611	618
UN3001	PHENYL UREA PESTICIDE, LIQUID, TOXIC, FLAMMABLE*	III	6.1	3	611	618
UN3001	PHENYL UREA PESTICIDE, LIQUID, TOXIC, FLAMMABLE*	III	6.1	3	611	618
UN3002	PHENYL UREA PESTICIDE, LIQUID, TOXIC*	III	6.1		611	618
UN3002	PHENYL UREA PESTICIDE, LIQUID, TOXIC*	III	6.1		611	618
UN3003	BENZOIC DERIVATIVE PESTICIDE, LIQUID, TOXIC, FLAMMABLE*	III	6.1	3	611	618
UN3003	BENZOIC DERIVATIVE PESTICIDE, LIQUID, TOXIC,	III	6.1	3	611	618

	FLAMMABLE*					
UN3004	BENZOIC DERIVATIVE PESTICIDE, LIQUID, TOXIC*	III	6.1		611	618
UN3004	BENZOIC DERIVATIVE PESTICIDE, LIQUID, TOXIC*	III	6.1		611	618
UN3005		III	6.1	3	611	618
UN3005		III	6.1	3	611	618
UN3005	THIOCARBAMATE PESTICIDE, LIQUID, TOXIC, FLAMMABLE*, flash point not less than 23 degrees centigrade	III	6.1	3	611	618
UN3005	THIOCARBAMATE PESTICIDE, LIQUID, TOXIC, FLAMMABLE*, flash point not less than 23 degrees centigrade	III	6.1	3	611	618
UN3006	THIOCARBAMATE PESTICIDE, LIQUID, TOXIC*	III	6.1		611	618
UN3006		III	6.1		611	618
UN3006	THIOCARBAMATE PESTICIDE, LIQUID, TOXIC*	III	6.1		611	618
UN3006		III	6.1		611	618
UN3007	PHTHALIMIDE DERIVATIVE PESTICIDE, LIQUID, TOXIC, FLAMMABLE*	III	6.1	3	611	618
UN3007	PHTHALIMIDE DERIVATIVE PESTICIDE, LIQUID, TOXIC, FLAMMABLE*	III	6.1	3	611	618
UN3008	PHTHALIMIDE DERIVATIVE PESTICIDE, LIQUID, TOXIC*	III	6.1		611	618
UN3008	PHTHALIMIDE DERIVATIVE PESTICIDE, LIQUID, TOXIC*	III	6.1		611	618
UN3009	COPPER BASED PESTICIDE, LIQUID, TOXIC, FLAMMABLE, *	III	6.1	3	611	618
UN3009	COPPER BASED PESTICIDE, LIQUID, TOXIC, FLAMMABLE, *	III	6.1	3	611	618
UN3010	COPPER BASED PESTICIDE, LIQUID, TOXIC*	III	6.1		611	618
UN3010	COPPER BASED PESTICIDE, LIQUID, TOXIC*	III	6.1		611	618
UN3011	MERCURY BASED PESTICIDE, LIQUID, TOXIC, FLAMMABLE*	III	6.1	3	611	618
UN3011	MERCURY BASED PESTICIDE, LIQUID, TOXIC, FLAMMABLE*	III	6.1	3	611	618
UN3012	MERCURY BASED PESTICIDE, LIQUID, TOXIC*	III	6.1		611	618
UN3012	MERCURY BASED PESTICIDE, LIQUID, TOXIC*	III	6.1		611	618
UN3013	SUBSTITUTED NITROPHENOL PESTICIDE, LIQUID, TOXIC,	III	6.1	3	611	618

	FLAMMABLE*					
UN3013	SUBSTITUTED NITROPHENOL PESTICIDE, LIQUID, TOXIC, FLAMMABLE*	III	6.1	3	611	618
UN3014	SUBSTITUTED NITROPHENOL PESTICIDE, LIQUID, TOXIC*	III	6.1		611	618
UN3014	SUBSTITUTED NITROPHENOL PESTICIDE, LIQUID, TOXIC*	III	6.1		611	618
UN3015	BIPYRIDILIUM PESTICIDE, LIQUID, TOXIC, FLAMMABLE*.	III	6.1	3	611	618
UN3015	BIPYRIDILIUM PESTICIDE, LIQUID, TOXIC, FLAMMABLE*.	III	6.1	3	611	618
UN3016	BIPYRIDILIUM PESTICIDE, LIQUID, TOXIC*	III	6.1		611	618
UN3016	BIPYRIDILIUM PESTICIDE, LIQUID, TOXIC*	III	6.1		611	618
UN3017	ORGANOPHOSPHORUS PESTICIDE, LIQUID, TOXIC, FLAMMABLE*	III	6.1	3	611	618
UN3017	ORGANOPHOSPHORUS PESTICIDE, LIQUID, TOXIC, FLAMMABLE*	III	6.1	3	611	618
UN3018	ORGANOPHOSPHORUS PESTICIDE, LIQUID, TOXIC*	III	6.1		611	618
UN3018	ORGANOPHOSPHORUS PESTICIDE, LIQUID, TOXIC*	III	6.1		611	618
UN3019	ORGANOTIN PESTICIDE, LIQUID, TOXIC, FLAMMABLE*	III	6.1	3	611	618
UN3019	ORGANOTIN PESTICIDE, LIQUID, TOXIC, FLAMMABLE*	III	6.1	3	611	618
UN3020	ORGANOTIN PESTICIDE, LIQUID, TOXIC*	III	6.1		611	618
UN3020	ORGANOTIN PESTICIDE, LIQUID, TOXIC*	III	6.1		611	618
UN3025	COUMARIN DERIVATIVE PESTICIDE, LIQUID, TOXIC, FLAMMABLE*	III	6.1	3	611	618
UN3025	COUMARIN DERIVATIVE PESTICIDE, LIQUID, TOXIC, FLAMMABLE*	III	6.1	3	611	618
UN3026	COUMARIN DERIVATIVE PESTICIDE, LIQUID, TOXIC*	III	6.1		611	618
UN3026	COUMARIN DERIVATIVE PESTICIDE, LIQUID, TOXIC*	III	6.1		611	618
UN3027	COUMARIN DERIVATIVE PESTICIDE, SOLID, TOXIC*	III	6.1		619	619
UN3027	COUMARIN DERIVATIVE PESTICIDE, SOLID, TOXIC*	III	6.1		619	619
UN3140	ALKALOIDS, LIQUID, N.O.S.*	III	6.1		611	618

UN3140	ALKALOID SALTS, LIQUID, N.O.S.*	III	6.1		611	618
UN3141	ANTIMONY COMPOUND, INORGANIC, LIQUID, N.O.S.	III	6.1		611	618
UN3142	DISINFECTANTS, LIQUID, TOXIC, N.O.S.	III	6.1		611	618
UN3142	DISINFECTANTS, LIQUID, TOXIC, N.O.S.	III	6.1		611	618
UN3143	DYE INTERMEDIATE, SOLID, TOXIC, N.O.S.*	III	6.1		619	619
UN3143	DYE, SOLID, TOXIC, N.O.S.*	III	6.1		619	619
UN3144	NICOTINE PREPARATION, LIQUID, N.O.S.	III	6.1		611	618
UN3144	NICOTINE COMPOUND, LIQUID, N.O.S.	III	6.1		611	618
UN3146	ORGANOTIN COMPOUND, SOLID, N.O.S.	III	6.1		619	619
UN3146	ORGANOTIN COMPOUND, SOLID, N.O.S.	III	6.1		619	619
UN3172	TOXINS, EXTRACTED FROM LIVING SOURCES, SOLID, N.O.S.	III	6.1		619	619
UN3172	TOXINS, EXTRACTED FROM LIVING SOURCES, LIQUID, N.O.S.	III	6.1		611	618
UN3172	TOXINS, EXTRACTED FROM LIVING SOURCES, SOLID, N.O.S.	III	6.1		619	619
UN3172	TOXINS, EXTRACTED FROM LIVING SOURCES, LIQUID, N.O.S.	III	6.1		611	618
UN3249	MEDICINE, SOLID, TOXIC, N.O.S.	III	6.1		613	615
UN3276	NITRILES, TOXIC, N.O.S.*, liquid	III	6.1		611	618
UN3276	NITRILES, TOXIC, N.O.S.*, solid	III	6.1		619	619
UN3276	NITRILES, TOXIC, N.O.S.*, liquid	III	6.1		611	618
UN3276	NITRILES, TOXIC, N.O.S.*, solid	III	6.1		619	619
UN3278	ORGANOPHOSPHORUS COMPOUND, TOXIC, N.O.S.* solid	III	6.1		619	619
UN3278	ORGANOPHOSPHORUS COMPOUND, TOXIC, N.O.S.* solid	III	6.1		619	619
UN3278	ORGANOPHOSPHORUS COMPOUND, TOXIC, N.O.S.* liquid	III	6.1		611	618
UN3278	ORGANOPHOSPHORUS COMPOUND, TOXIC, N.O.S.* liquid	III	6.1		611	618
UN3280	ORGANOARSENIC COMPOUND, N.O.S.*, SOLID	III	6.1		619	619

UN3280	ORGANOARSENIC COMPOUND, N.O.S.*, SOLID	III	6.1		619	619
UN3280	ORGANOARSENIC COMPOUND, N.O.S.*,LIQUID	III	6.1		611	618
UN3280	ORGANOARSENIC COMPOUND, N.O.S.*,LIQUID	III	6.1		611	618
UN3281	METAL CARBONYLS, N.O.S.*, solid	III	3281	6.1	619	619
UN3281	METAL CARBONYLS, N.O.S.*, solid	III	3281	6.1	619	619
UN3281	METAL CARBONYLS, N.O.S.*, liquid	III	6.1		611	618
UN3281	METAL CARBONYLS, N.O.S.*, liquid	III	6.1		611	618
UN3282	ORGANOMETALLIC COMPOUND, TOXIC, N.O.S.*, solid	III	6.1		619	619
UN3282	ORGANOMETALLIC COMPOUND, TOXIC, N.O.S.*, solid	III	6.1		619	619
UN3282	ORGANOMETALLIC COMPOUND, TOXIC, N.O.S., liquid	III	6.1		611	618
UN3282	ORGANOMETALLIC COMPOUND, TOXIC, N.O.S., liquid	III	6.1		611	618
UN3283	SELENIUM COMPOUND, N.O.S.	III	6.1		619	619
UN3283	SELENIUM COMPOUND, N.O.S.	III	6.1		619	619
UN3284	TELLURIUM COMPOUND, N.O.S.	III	6.1		619	619
UN3284	TELLURIUM COMPOUND, N.O.S.	III	6.1		619	619
UN3285	VANADIUM COMPOUND, N.O.S.	III	6.1		619	619
UN3285	VANADIUM COMPOUND, N.O.S.	III	6.1		619	619
UN3287	TOXIC LIQUID, INORGANIC, N.O.S.*	III	6.1		611	618
UN3287	TOXIC LIQUID, INORGANIC, N.O.S.*	III	6.1		611	618
UN3288	TOXIC SOLID, INORGANIC, N.O.S.*	III	6.1		619	619
UN3288	TOXIC SOLID, INORGANIC, N.O.S.*	III	6.1		619	619
UN3293	HYDRAZINE, AQUEOUS SOLUTION with not more than 37% hydrazine, by mass	III	6.1		611	618
UN3345	PHENOXYACETIC ACID DERIVATIVE PESTICIDE, SOLID, TOXIC*	III	6.1		619	619
UN3345	PHENOXYACETIC ACID DERIVATIVE PESTICIDE, SOLID, TOXIC*	III	6.1		619	619

UN3347	PHENOXYACETIC ACID DERIVARIVE PESTICIDE, LIQUID, TOXIC, FLAMMABLE,* flash point not less than 23 degrees centigrade	III	6.1	3	611	618
UN3347	PHENOXYACETIC ACID DERIVARIVE PESTICIDE, LIQUID, TOXIC, FLAMMABLE,* flash point not less than 23 degrees centigrade	III	6.1	3	611	618
UN3348	PHENOXYACETIC ACID DERIVATIVE PESTICIDE, LIQUID, TOXIC*	III	6.1		611	618
UN3348	PHENOXYACETIC ACID DERIVATIVE PESTICIDE, LIQUID, TOXIC*	III	6.1		611	618
UN3349	PYRETHROID PESTICIDE, SOLID, TOXIC*	III	6.1		619	619
UN3349	PYRETHROID PESTICIDE, SOLID, TOXIC*	III	6.1		619	619
UN3351	PRETHROID PESTICIDE, LIQUID, TOXIC, FLAMMABLE*, flash point not less than 23 degrees centigrade	III	6.1	3	611	618
UN3351	PRETHROID PESTICIDE, LIQUID, TOXIC, FLAMMABLE*, flash point not less than 23 degrees centigrade	III	6.1	3	611	618
UN3352	PYRETHROID PESTICIDE, LIQUID, TOXIC*	III	6.1		611	618
UN3352	PYRETHROID PESTICIDE, LIQUID, TOXIC*	III	6.1		611	618

Y6X1	PACKING INSTRUCTION Y6X1	Y6X1

The general packing requirements of Part 4, Chapter 1 must be met.

Single packagings are not permitted.

COMBINATION PACKAGINGS:

INNER:

The following inner packagings are authorized for the indicated quantities of liquid for passenger or cargo aircraft. When a packaging is not permitted the word "prohibited" is indicated.

		Passenger Or Cargo Aircraft			
		PG I	***PG II***	***PG III***	
	Glass or earthenware (IP.1)	Prohibited	0.1 L	0.5 L	
	Plastic (IP.2)	Prohibited	0.1 L	0.5 L	
	Metal (IP.3, IP.3A)	Prohibited	0.1 L	0.5 L	

OUTER:

	Boxes	***Drums***	***Jerrican***	
	aluminium fibreboard plywood reconstituted wood expanded plastic solid plastic steel wooden	aluminium fibre plywood steel plastic other metal	aluminium plastic steel	

Particular Packaging Requirements:

PPRY6X1-1 For UN 1737, 1738, 1750, 2022, 2076, 2267, 2574, 2742, 2743, 2744, 2745, 2746, 2748, 2788, 2927, 3071, 3073, 3277, and 3289, glass or earthenware inner packagings must be packed with absorbent material in tightly closed metal or rigid plastic receptacles before packing in outer packagings.

PPRY6X1-2 For UN 3071, plastic inner packagings must be packed in tightly closed metal or rigid plastic receptacles before packing in outer packagings.

PPRY6X1-3 For UN 1593, 1702, 1710, 1846, 1888, 1897, and 2831, pure aluminium or aluminium alloys are permitted only for halogenated hydrocarbons that will not react with aluminium.

PPRY6X1-4 For UN 2574, plastic inner packagings are not permitted.

PPRY6X1-5 For UN 1638, 1737, 1738, 1750, 1916, 1935,2024, and 2788, aluminium inner packagings are not permitted.

PPRY6X1-6 For UN 1851 and 1888, inner packaging quantity limits must not exceed 0.1 L.

Notes: This instruction combines existing packing instructions Y605, Y609, Y610, Y611, and Y612.
- PPRY6X1-1 is the former PPR13
- PPRY6X1-2 is the former PPR2
- PPRY6X1-3 is the former PPR3
- PPRY6X1-4 and PPRY6X1-5 are packaging type restrictions from the existing packaging instructions.
- PPRY6X1-6 are inner packaging quantity restrictions from the existing packaging instructions.
- Inner packaging quantity limits were not changed.
- Inner packaging IP8 removed, now included in IP1 definition.

Added outer packagings to harmonize with UN Model Regulations: Boxes, expanded plastic; Drums other metal.

The following PPR was judged to be a compatibility issue and has been removed from the packing instruction (from Y610):

PPR 5 Steel packagings must be corrosion resistant or with protection from corrosion (applies to UN 1737, 1738, 1750).

The substances that would be assigned to Y6X1 are:

Substances Assigned to Y6X1							
UN#	**ICAO PSN**	**PG**	**CLASS**	**SUB**	**PASS PI**	**CARGO PI**	**LTD PI**
UN1181	ETHYL CHLOROACETATE	II	6.1	3	609	611	Y609
UN1199	FURALDEHYDES	II	6.1	3	609	611	Y609
UN1547	ANILINE	II	6.1		609	611	Y609
UN1577	CHLORODINITROBENZENES,	II	6.1		609	611	Y609

	LIQUID						
UN1578	CHLORONITROBENZENES, LIQUID	II	6.1		609	611	Y609
UN1590	DICHLOROANILINES, LIQUID	II	6.1		609	611	Y609
UN1594	DIETHYL SULPHATE	II	6.1		609	611	Y609
UN1597	DINITROBENZENES, LIQUID	II	6.1		609	611	Y609
UN1598	DINITRO-o-CRESOL, SOLUTION	II	6.1		609	611	Y609
UN1599	DINITROPHENOL SOLUTION	II	6.1		609	611	Y609
UN1611	HEXAETHYL TETRAPHOSPHATE, LIQUID	II	6.1		609	611	Y609
UN1638	MERCURY IODIDE solution	II	6.1		610	612	Y610
UN1654	NICOTINE	II	6.1		609	611	Y609
UN1656	NICOTINE HYDROCHLORIDE	II	6.1		609	611	Y609
UN1658	NICOTINE SULPHATE SOLUTION	II	6.1		609	611	Y609
UN1662	NITROBENZENE	II	6.1		609	611	Y609
UN1664	NITROTOLUENES, LIQUID	II	6.1		609	611	Y609
UN1665	NITROXYLENES, LIQUID	II	6.1		609	611	Y609
UN1669	PENTACHLOROETHANE	II	6.1		609	611	Y609
UN1686	SODIUM ARSENITE, AQUEOUS SOLUTION	II	6.1		609	611	Y609
UN1702	TETRACHLOROETHANE	II	6.1		610	612	Y610
UN1704	TETRAETHYL DITHIOPYROPHOSPHATE	II	6.1		609	611	Y609
UN1708	TOLUIDINES, LIQUID	II	6.1		609	611	Y609
UN1711	XYLIDINES, LIQUID	II	6.1		609	611	Y609
UN1737	BENZYL BROMIDE	II	6.1	8	610	612	Y610
UN1738	BENZYL CHLORIDE	II	6.1	8	610	612	Y610
UN1750	CHLOROACETIC ACID SOLUTION	II	6.1	8	610	612	Y610
UN1846	CARBON TETRACHLORIDE	II	6.1		610	612	Y610
UN1851	MEDICINE, LIQUID, TOXIC, N.O.S.	II	6.1		609	611	Y609
UN1886	BENZYLIDENE CHLORIDE	II	6.1		609	611	Y609
UN1891	ETHYL BROMIDE	II	6.1		609	611	Y609
UN1916	2,2' -DICHLORODIETHYL ETHER	II	6.1	3	610	612	Y610
UN2019	CHLOROANILINES, LIQUID	II	6.1		609	611	Y609
UN2022	CRESYLIC ACID	II	6.1	8	609	611	Y609
UN2023	EPICHLOROHYDRIN	II	6.1	3	609	611	Y609
UN2038	DINITROTOLUENES, LIQUID	II	6.1		609	611	Y609
UN2075	CHLORAL, ANHYDROUS,STABILIZED	II	6.1		609	611	Y609
UN2076	CRESOLS, LIQUID	II	6.1	8	609	611	Y609
UN2078	TOLUENE DIISOCYANATE	II	6.1		609	611	Y609
UN2206	ISOCYANATES, TOXIC, N.O.S.*	II	6.1		609	611	Y609

UN2224	BENZONITRILE	II	6.1		609	611	Y609
UN2253	N,N-DIMETHYLANILINE	II	6.1		609	611	Y609
UN2267	DIMETHYL THIOPHOSPHORYL CHLORIDE	II	6.1	8	609	611	Y609
UN2281	HEXAMETHYLENE DIISOCYANATE	II	6.1		609	611	Y609
UN2285	ISOCYANATOBENZOTRIFLUORIDES	II	6.1	3	609	611	Y609
UN2306	NITROBENZOTRIFLUORIDES	II	6.1		609	611	Y609
UN2307	3-NITRO-4-CHLOROBENZOTRIFLUORIDE	II	6.1		609	611	Y609
UN2322	TRICHLOROBUTENE	II	6.1		609	611	Y609
UN2490	DICHLOROISOPROPYL ETHER	II	6.1		609	611	Y609
UN2501	TRIS-(1-AZIRIDINYL) PHOSPHINE OXIDE SOLUTION	II	6.1		609	611	Y609
UN2522	2-DIMETHYLAMINOETHYL METHACRYLATE	II	6.1		609	611	Y609
UN2542	TRIBUTYLAMINE	II	6.1		609	611	Y609
UN2552	HEXAFLUOROACETONE HYDRATE	II	6.1		609	611	Y609
UN2572	PHENYLHYDRAZINE	II	6.1		609	611	Y609
UN2574	TRICRESYL PHOSPHATE	II	6.1		610	612	Y610
UN2589	VINYL CHLOROACETATE	II	6.1	3	609	611	Y609
UN2611	PROPYLENE CHLOROHYDRIN	II	6.1	3	609	611	Y609
UN2643	METHYL BROMOACETATE	II	6.1		609	611	Y609
UN2648	1,2-DIBROMOBUTAN-3-ONE	II	6.1		609	611	Y609
UN2650	1,1-DICHLORO-1-NITROETHANE	II	6.1		609	611	Y609
UN2653	BENZYL IODIDE	II	6.1		609	611	Y609
UN2669	CHLOROCRESOLS, LIQUID	II	6.1		609	611	Y609
UN2690	N,n-BUTYL IMIDAZOLE	II	6.1		609	611	Y609
UN2738	N-BUTYLANILINE	II	6.1		609	611	Y609
UN2742	CHLOROFORMATES, TOXIC, CORROSIVE, FLAMMABLE, N.O.S.	II	6.1	8	609	611	Y609
UN2743	n-BUTYL CHLOROFORMATE	II	6.1	3, 8	609	611	Y609
UN2744	CYCLOBUTYL CHLOROFORMATE	II	6.1	3, 8	609	611	Y609
UN2745	CHLOROMETHYL CHLOROFORMATE	II	6.1	8	609	611	Y609
UN2746	PHENYL CHLOROFORMATE	II	6.1	8	609	611	Y609
UN2748	2-ETHYLHEXYL CHLOROFORMATE	II	6.1	8	609	611	Y609
UN2750	1,3-DICHLOROPROPANOL-2	II	6.1		609	611	Y609

UN2754	N-ETHYLTOLUIDINES	II	6.1		609	611	Y609
UN2821	PHENOL SOLUTION	II	6.1		609	611	Y609
UN2822	2-CHLOROPYRIDINE	II	6.1		609	611	Y609
UN2839	ALDOL	II	6.1		609	611	Y609
UN2872	DIBROMOCHLOROPROPANES	II	6.1		609	611	Y609
UN2927	TOXIC LIQUID, CORROSIVE, ORGANIC, N.O.S.*	II	6.1	8	609	611	Y609
UN2929	TOXIC LIQUID, FLAMMABLE, ORGANIC, N.O.S.*	II	6.1	3	609	611	Y609
UN2936	THIOLACTIC ACID	II	6.1		609	611	Y609
UN2948	3-TRIFLUOROMETHYLANILINE	II	6.1		609	611	Y609
UN2966	THIOGLYCOL	II	6.1		609	611	Y609
UN3071	MERCAPTANS, LIQUID, TOXIC, FLAMMABLE, N.O.S.*	II	6.1	3	610	612	Y610
UN3073	VINYLPYRIDINES, STABILIZED	II	6.1	3, 8	609	611	Y609
UN3080	ISOCYANATES, TOXIC, FLAMMABLE, N.O.S.*	II	6.1	3	609	611	Y609
UN3122	TOXIC LIQUID, OXIDIZING, N.O.S.*	II	6.1	5.1	609	611	Y609
UN3275	NITRILES, TOXIC, FLAMMABLE, N.O.S.*	II	6.1	3	609	611	Y609
UN3277	CHLOROFORMATES, TOXIC, CORROSIVE, N.O.S.*	II	6.1	8	609	611	Y609
UN3279	ORGANOPHOSPHORUS COMPOUND, TOXIC, FLAMMABLE, N.O.S.*	II	6.1	3	609	611	Y609
UN3289	TOXIC LIQUID, CORROSIVE, INORGANIC, N.O.S.*	II	6.1	8	609	611	Y609
UN3302	2-DIMETHYLAMINOETHYL ACRYLATE	II	6.1		609	611	Y609
UN1556	ARSENIC COMPOUND, LIQUID, N.O.S.	III	6.1		611	618	Y611
UN1556	ARSENIC COMPOUND, LIQUID, N.O.S.	III	6.1		611	618	Y611
UN1591	o-DICHLOROBENZENE	III	6.1		611	618	Y611
UN1593	DICHLOROMETHANE	III	6.1		605	612	Y605
UN1599	DINITROPHENOL SOLUTION	III	6.1		611	618	Y611
UN1602	DYE INTERMEDIATE, LIQUID, TOXIC, N.O.S.*	III	6.1		611	618	Y611
UN1602	DYE, LIQUID, TOXIC, N.O.S.*	III	6.1		611	618	Y611
UN1686	SODIUM ARSENITE, AQUEOUS SOLUTION	III	6.1		611	618	Y611
UN1710	TRICHLOROETHYLENE	III	6.1		605	612	Y605
UN1851	MEDICINE, LIQUID, TOXIC, N.O.S.	III	6.1		609	611	Y609
UN1887	BROMOCHLOROMETHANE	III	6.1		611	618	Y611

UN1888	CHLOROFORM	III	6.1		610	612	Y610
UN1897	TETRACHLOROETHYLENE	III	6.1		605	612	Y605
UN1935	CYANIDE SOLUTION, N.O.S.	III	6.1		612	620	Y612
UN1935	CYANIDE SOLUTION, N.O.S.	III	6.1		612	620	Y612
UN2021	CHLOROPHENOLS, LIQUID	III	6.1		611	618	Y611
UN2024	MERCURY COMPOUND, LIQUID, N.O.S.	III	6.1		612	620	Y612
UN2024	MERCURY COMPOUND, LIQUID, N.O.S.	III	6.1		612	620	Y612
UN2205	ADIPONITRILE	III	6.1		611	618	Y611
UN2206	ISOCYANATES, TOXIC, N.O.S.*	III	6.1		611	618	Y611
UN2235	CHLOROBENZYL CHLORIDES	III	6.1		611	618	Y611
UN2239	CHLOROTOLUIDINES, LIQUID	III	6.1		611	618	Y611
UN2272	N-ETHYLANILINE	III	6.1		611	618	Y611
UN2273	2-ETHYLANILINE	III	6.1		611	618	Y611
UN2274	N-ETHYL-N-BENZYLANILINE	III	6.1		611	618	Y611
UN2279	HEXACHLOROBUTADIENE	III	6.1		611	618	Y611
UN2290	ISOPHORONE DIISOCYANATE	III	6.1		611	618	Y611
UN2294	N-METHYLANILINE	III	6.1		611	618	Y611
UN2299	METHYL DICHLOROACETATE	III	6.1		611	618	Y611
UN2300	2-METHYL-5-ETHYLPYRIDINE	III	6.1		611	618	Y611
UN2311	PHENETIDINES	III	6.1		611	618	Y611
UN2321	TRICHLOROBENZENES, LIQUID	III	6.1		611	618	Y611
UN2328	TRIMETHYLHEXAMETHYLENE DIISOCYANATE	III	6.1		611	618	Y611
UN2431	ANISIDINES, LIQUID	III	6.1		611	618	Y611
UN2432	N,N-DIETHYLANILINE	III	6.1		611	618	Y611
UN2433	CHLORONITROTOLUENES, LIQUID	III	6.1		611	618	Y611
UN2470	PHENYLACETONITRILE, LIQUID	III	6.1		611	618	Y611
UN2501	TRIS-(1-AZIRIDINYL) PHOSPHINE OXIDE SOLUTION	III	6.1		611	618	Y611
UN2504	TETRABROMOETHANE	III	6.1		611	618	Y611
UN2515	BROMOFORM	III	6.1		611	618	Y611
UN2518	1,5,9-CYCLODODECATRIENE	III	6.1		611	618	Y611
UN2525	ETHYL OXALATE	III	6.1		611	618	Y611
UN2533	METHYL TRICHLOROACETATE	III	6.1		611	618	Y611
UN2609	TRIALLYL BORATE	III	6.1		611	618	Y611
UN2656	QUINOLINE	III	6.1		611	618	Y611

UN2661	HEXACHLOROACETONE	III	6.1		611	618	Y611
UN2664	DIBROMOMETHANE	III	6.1		611	618	Y611
UN2666	ETHYL CYANOACETATE	III	6.1		611	618	Y611
UN2667	BUTYLTOLUENES	III	6.1		611	618	Y611
UN2688	1-BROMO-3-CHLOROPROPANE	III	6.1		611	618	Y611
UN2689	GLYCEROL alpha-MONOCHLOROHYDRIN	III	6.1		611	618	Y611
UN2730	NITROANISOLE, LIQUID	III	6.1		611	618	Y611
UN2732	NITROBROMOBENZENE, LIQUID	III	6.1		611	618	Y611
UN2747	tert-BUTYLCYCLOHEXYL CHLOROFORMATE	III	6.1		611	618	Y611
UN2753	N-ETHYLBENZYLTOLUIDINES, LIQUID	III	6.1		611	618	Y611
UN2785	4-THIAPENTANAL	III	6.1		611	618	Y611
UN2788	ORGANOTIN COMPOUND, LIQUID, N.O.S.	III	6.1		611	618	Y611
UN2788	ORGANOTIN COMPOUND, LIQUID, N.O.S.	III	6.1		611	618	Y611
UN2810	TOXIC LIQUID, ORGANIC, N.O.S.*	III	6.1		611	618	Y611
UN2810	TOXIC LIQUID, ORGANIC, N.O.S.*	III	6.1		611	618	Y611
UN2821	PHENOL SOLUTION	III	6.1		611	618	Y611
UN2831	1,1,1-TRICHLOROETHANE	III	6.1		605	612	Y605
UN2849	3-CHLOROPROPANOL-1	III	6.1		611	618	Y611
UN2872	DIBROMOCHLOROPROPANES	III	6.1		611	618	Y611
UN2873	DIBUTYLAMINOETHANOL	III	6.1		611	618	Y611
UN2874	FURFURYL ALCOHOL	III	6.1		611	618	Y611
UN2902	PESTICIDE, LIQUID, TOXIC, N.O.S.*	III	6.1		611	618	Y611
UN2902	PESTICIDE, LIQUID, TOXIC, N.O.S.*	III	6.1		611	618	Y611
UN2903	PESTICIDE, LIQUID, TOXIC, FLAMMABLE, N.O.S.*	III	6.1	3	611	618	Y611
UN2903	PESTICIDE, LIQUID, TOXIC, FLAMMABLE, N.O.S.*	III	6.1	3	611	618	Y611
UN2937	alpha-METHYLBENZYL ALCOHOL	III	6.1		611	618	Y611
UN2941	FLUOROANILINES	III	6.1		611	618	Y611
UN2942	2-TRIFLUOROMETHYLANILINE	III	6.1		611	618	Y611
UN2991	CARBAMATE PESTICIDE, LIQUID, TOXIC, FLAMMABLE*	III	6.1	3	611	618	Y611
UN2991	CARBAMATE PESTICIDE,	III	6.1	3	611	618	Y611

	LIQUID, TOXIC, FLAMMABLE*						
UN2992	CARBAMATE PESTICIDE, LIQUID, TOXIC*	III	6.1		611	618	Y611
UN2992	CARBAMATE PESTICIDE, LIQUID, TOXIC*	III	6.1		611	618	Y611
UN2993	ARSENICAL PESTICIDE, LIQUID, TOXIC, FLAMMABLE*	III	6.1	3	611	618	Y611
UN2993	ARSENICAL PESTICIDE, LIQUID, TOXIC, FLAMMABLE*	III	6.1	3	611	618	Y611
UN2994	ARSENICAL PESTICIDE, LIQUID, TOXIC*.	III	6.1		611	618	Y611
UN2994	ARSENICAL PESTICIDE, LIQUID, TOXIC*.	III	6.1		611	618	Y611
UN2995	ORGANOCHLORINE PESTICIDE, LIQUID, TOXIC, FLAMMABLE*	III	6.1	3	611	618	Y611
UN2995	ORGANOCHLORINE PESTICIDE, LIQUID, TOXIC, FLAMMABLE*	III	6.1	3	611	618	Y611
UN2996	ORGANOCHLORINE PESTICIDE, LIQUID, TOXIC*	III	6.1		611	618	Y611
UN2996	ORGANOCHLORINE PESTICIDE, LIQUID, TOXIC*	III	6.1		611	618	Y611
UN2997	TRIAZINE PESTICIDE, LIQUID, TOXIC, FLAMMABLE*	III	6.1	3	611	618	Y611
UN2997	TRIAZINE PESTICIDE, LIQUID, TOXIC, FLAMMABLE*	III	6.1	3	611	618	Y611
UN2998	TRIAZINE PESTICIDE, LIQUID TOXIC*	III	6.1		611	618	Y611
UN2998	TRIAZINE PESTICIDE, LIQUID TOXIC*	III	6.1		611	618	Y611
UN2999	PHENOXY PESTICIDE, LIQUID, TOXIC, FLAMMABLE*	III	6.1	3	611	618	Y611
UN2999	PHENOXY PESTICIDE, LIQUID, TOXIC, FLAMMABLE*	III	6.1	3	611	618	Y611
UN3000	PHENOXY PESTICIDE, LIQUID, TOXIC*	III	6.1		611	618	Y611
UN3000	PHENOXY PESTICIDE, LIQUID, TOXIC*	III	6.1		611	618	Y611
UN3001	PHENYL UREA PESTICIDE, LIQUID, TOXIC, FLAMMABLE*	III	6.1	3	611	618	Y611

UN3001	PHENYL UREA PESTICIDE, LIQUID, TOXIC, FLAMMABLE*	III	6.1	3	611	618	Y611
UN3002	PHENYL UREA PESTICIDE, LIQUID, TOXIC*	III	6.1		611	618	Y611
UN3002	PHENYL UREA PESTICIDE, LIQUID, TOXIC*	III	6.1		611	618	Y611
UN3003	BENZOIC DERIVATIVE PESTICIDE, LIQUID, TOXIC, FLAMMABLE*	III	6.1	3	611	618	Y611
UN3003	BENZOIC DERIVATIVE PESTICIDE, LIQUID, TOXIC, FLAMMABLE*	III	6.1	3	611	618	Y611
UN3004	BENZOIC DERIVATIVE PESTICIDE, LIQUID, TOXIC*	III	6.1		611	618	Y611
UN3004	BENZOIC DERIVATIVE PESTICIDE, LIQUID, TOXIC*	III	6.1		611	618	Y611
UN3005		III	6.1	3	611	618	Y611
UN3005	THIOCARBAMATE PESTICIDE, LIQUID, TOXIC, FLAMMABLE*, flash point not less than 23 degrees centigrade	III	6.1	3	611	618	Y611
UN3005		III	6.1	3	611	618	Y611
UN3005	THIOCARBAMATE PESTICIDE, LIQUID, TOXIC, FLAMMABLE*, flash point not less than 23 degrees centigrade	III	6.1	3	611	618	Y611
UN3006	THIOCARBAMATE PESTICIDE, LIQUID, TOXIC*	III	6.1		611	618	Y611
UN3006	THIOCARBAMATE PESTICIDE, LIQUID, TOXIC*	III	6.1		611	618	Y611
UN3006		III	6.1		611	618	Y611
UN3006		III	6.1		611	618	Y611
UN3007	PHTHALIMIDE DERIVATIVE PESTICIDE, LIQUID, TOXIC, FLAMMABLE*	III	6.1	3	611	618	Y611
UN3007	PHTHALIMIDE DERIVATIVE PESTICIDE, LIQUID, TOXIC, FLAMMABLE*	III	6.1	3	611	618	Y611
UN3008	PHTHALIMIDE DERIVATIVE PESTICIDE, LIQUID, TOXIC*	III	6.1		611	618	Y611
UN3008	PHTHALIMIDE DERIVATIVE PESTICIDE, LIQUID, TOXIC*	III	6.1		611	618	Y611
UN3009	COPPER BASED PESTICIDE, LIQUID, TOXIC, FLAMMABLE, *	III	6.1	3	611	618	Y611
UN3009	COPPER BASED PESTICIDE, LIQUID, TOXIC, FLAMMABLE, *	III	6.1	3	611	618	Y611

UN3010	COPPER BASED PESTICIDE, LIQUID, TOXIC*	III	6.1		611	618	Y611
UN3010	COPPER BASED PESTICIDE, LIQUID, TOXIC*	III	6.1		611	618	Y611
UN3011	MERCURY BASED PESTICIDE, LIQUID, TOXIC, FLAMMABLE*	III	6.1	3	611	618	Y611
UN3011	MERCURY BASED PESTICIDE, LIQUID, TOXIC, FLAMMABLE*	III	6.1	3	611	618	Y611
UN3012	MERCURY BASED PESTICIDE, LIQUID, TOXIC*	III	6.1		611	618	Y611
UN3012	MERCURY BASED PESTICIDE, LIQUID, TOXIC*	III	6.1		611	618	Y611
UN3013	SUBSTITUTED NITROPHENOL PESTICIDE, LIQUID, TOXIC, FLAMMABLE*	III	6.1	3	611	618	Y611
UN3013	SUBSTITUTED NITROPHENOL PESTICIDE, LIQUID, TOXIC, FLAMMABLE*	III	6.1	3	611	618	Y611
UN3014	SUBSTITUTED NITROPHENOL PESTICIDE, LIQUID, TOXIC*	III	6.1		611	618	Y611
UN3014	SUBSTITUTED NITROPHENOL PESTICIDE, LIQUID, TOXIC*	III	6.1		611	618	Y611
UN3015	BIPYRIDILIUM PESTICIDE, LIQUID, TOXIC, FLAMMABLE*.	III	6.1	3	611	618	Y611
UN3015	BIPYRIDILIUM PESTICIDE, LIQUID, TOXIC, FLAMMABLE*.	III	6.1	3	611	618	Y611
UN3016	BIPYRIDILIUM PESTICIDE, LIQUID, TOXIC*	III	6.1		611	618	Y611
UN3016	BIPYRIDILIUM PESTICIDE, LIQUID, TOXIC*	III	6.1		611	618	Y611
UN3017	ORGANOPHOSPHORUS PESTICIDE, LIQUID, TOXIC, FLAMMABLE*	III	6.1	3	611	618	Y611
UN3017	ORGANOPHOSPHORUS PESTICIDE, LIQUID, TOXIC, FLAMMABLE*	III	6.1	3	611	618	Y611
UN3018	ORGANOPHOSPHORUS PESTICIDE, LIQUID, TOXIC*	III	6.1		611	618	Y611
UN3018	ORGANOPHOSPHORUS PESTICIDE, LIQUID, TOXIC*	III	6.1		611	618	Y611
UN3019	ORGANOTIN PESTICIDE,	III	6.1	3	611	618	Y611

	LIQUID, TOXIC, FLAMMABLE*						
UN3019	ORGANOTIN PESTICIDE, LIQUID, TOXIC, FLAMMABLE*	III	6.1	3	611	618	Y611
UN3020	ORGANOTIN PESTICIDE, LIQUID, TOXIC*	III	6.1		611	618	Y611
UN3020	ORGANOTIN PESTICIDE, LIQUID, TOXIC*	III	6.1		611	618	Y611
UN3025	COUMARIN DERIVATIVE PESTICIDE, LIQUID, TOXIC, FLAMMABLE*	III	6.1	3	611	618	Y611
UN3025	COUMARIN DERIVATIVE PESTICIDE, LIQUID, TOXIC, FLAMMABLE*	III	6.1	3	611	618	Y611
UN3026	COUMARIN DERIVATIVE PESTICIDE, LIQUID, TOXIC*	III	6.1		611	618	Y611
UN3026	COUMARIN DERIVATIVE PESTICIDE, LIQUID, TOXIC*	III	6.1		611	618	Y611
UN3140	ALKALOIDS, LIQUID, N.O.S.*	III	6.1		611	618	Y611
UN3140	ALKALOID SALTS, LIQUID, N.O.S.*	III	6.1		611	618	Y611
UN3141	ANTIMONY COMPOUND, INORGANIC, LIQUID, N.O.S.	III	6.1		611	618	Y611
UN3142	DISINFECTANTS, LIQUID, TOXIC, N.O.S.	III	6.1		611	618	Y611
UN3142	DISINFECTANTS, LIQUID, TOXIC, N.O.S.	III	6.1		611	618	Y611
UN3144	NICOTINE COMPOUND, LIQUID, N.O.S.	III	6.1		611	618	Y611
UN3144	NICOTINE PREPARATION, LIQUID, N.O.S.	III	6.1		611	618	Y611
UN3172	TOXINS, EXTRACTED FROM LIVING SOURCES, LIQUID, N.O.S.	III	6.1		611	618	Y611
UN3172	TOXINS, EXTRACTED FROM LIVING SOURCES, LIQUID, N.O.S.	III	6.1		611	618	Y611
UN3276	NITRILES, TOXIC, N.O.S.*, liquid	III	6.1		611	618	Y611
UN3276	NITRILES, TOXIC, N.O.S.*, liquid	III	6.1		611	618	Y611
UN3278	ORGANOPHOSPHORUS COMPOUND, TOXIC, N.O.S.* liquid	III	6.1		611	618	Y611
UN3278	ORGANOPHOSPHORUS COMPOUND, TOXIC, N.O.S.* liquid	III	6.1		611	618	Y611
UN3280	ORGANOARSENIC	III	6.1		611	618	Y611

	COMPOUND, N.O.S.*,LIQUID						
UN3280	ORGANOARSENIC COMPOUND, N.O.S.*,LIQUID	III	6.1		611	618	Y611
UN3281	METAL CARBONYLS, N.O.S.*, liquid	III	6.1		611	618	Y611
UN3281	METAL CARBONYLS, N.O.S.*, liquid	III	6.1		611	618	Y611
UN3282	ORGANOMETALLIC COMPOUND, TOXIC, N.O.S., liquid	III	6.1		611	618	Y611
UN3282	ORGANOMETALLIC COMPOUND, TOXIC, N.O.S., liquid	III	6.1		611	618	Y611
UN3287	TOXIC LIQUID, INORGANIC, N.O.S.*	III	6.1		611	618	Y611
UN3287	TOXIC LIQUID, INORGANIC, N.O.S.*	III	6.1		611	618	Y611
UN3293	HYDRAZINE, AQUEOUS SOLUTION with not more than 37% hydrazine, by mass	III	6.1		611	618	Y611
UN3347	PHENOXYACETIC ACID DERIVARIVE PESTICIDE, LIQUID, TOXIC, FLAMMABLE,* flash point not less than 23 degrees centigrade	III	6.1	3	611	618	Y611
UN3347	PHENOXYACETIC ACID DERIVARIVE PESTICIDE, LIQUID, TOXIC, FLAMMABLE,* flash point not less than 23 degrees centigrade	III	6.1	3	611	618	Y611
UN3348	PHENOXYACETIC ACID DERIVATIVE PESTICIDE, LIQUID, TOXIC*	III	6.1		611	618	Y611
UN3348	PHENOXYACETIC ACID DERIVATIVE PESTICIDE, LIQUID, TOXIC*	III	6.1		611	618	Y611
UN3351	PRETHROID PESTICIDE, LIQUID, TOXIC, FLAMMABLE*, flash point not less than 23 degrees centigrade	III	6.1	3	611	618	Y611
UN3351	PRETHROID PESTICIDE, LIQUID, TOXIC, FLAMMABLE*, flash point not less than 23 degrees centigrade	III	6.1	3	611	618	Y611
UN3352	PYRETHROID PESTICIDE, LIQUID, TOXIC*	III	6.1		611	618	Y611
UN3352	PYRETHROID PESTICIDE, LIQUID, TOXIC*	III	6.1		611	618	Y611

Y6X2	PACKING INSTRUCTION Y6X2	Y6X2

The general packing requirements of Part 4, Chapter 1 must be met.

Single packagings are not permitted.

COMBINATION PACKAGINGS:

INNER:

The following inner packagings are authorized for the indicated mass of solid for passenger or cargo aircraft. When a packaging is not permitted the word "prohibited" is indicated.

		PG I	*PG II*	*PG III*	
	Glass or earthenware (IP.1)	Prohibited	0.5 kg	1 kg	
	Plastic (IP.2)	Prohibited	0.5 kg	1 kg	
	Metal (IP.3, IP.3A)	Prohibited	0.5 kg	1 kg	
	Paper (IP.4)	Prohibited	0.5 kg	1 kg	
	Plastic bag (IP.5)	Prohibited	0.5 kg	1 kg	
	Fibre (IP.6)	Prohibited	0.5 kg	1 kg	
	Paper, plastic/aluminium (IP.10)	Prohibited	0.5 kg	1 kg	

OUTER:

	Boxes	***Drums***	***Jerrican***	
	aluminium fibreboard plywood reconstituted wood expanded plastic solid plastic steel wooden	aluminium fibre plywood steel plastic other metal	aluminium plastic steel	

Particular Packaging Requirements:
PPRY6X2-1 For UN 3146, glass or earthenware inner packagings must be packed with cushioning material in tightly closed metal or rigid plastic receptacles before packing in outer packagings.
PPRY6X2-2 For UN 1751 and 3146, only glass or earthenware, plastic, and metal (not aluminium) inner packagings are permitted.
PPRY6X2-3 For Un 2730, only glass or earthenware, plastic, metal and aluminium inner packagings are permitted.

Notes: This instruction combines existing packing instructions Y613, Y614, Y616, and Y619.
- PPRY6X2-1 is the former PPR9
- PPRY6X2-2 and PPRY6X2-3 are packaging type restrictions from the existing packaging instructions.
- Inner packaging quantity limits were not changed.
- Inner packaging IP8 removed, now included in IP1 definition.
- Added outer packagings to harmonize with UN Model Regulations: Boxes, expanded plastic; Drums other metal.

The following PPR was judged to be a compatibility issue and has been removed from the packing instruction (from Y614):
PPR 5 Steel packagings must be corrosion resistant or with protection from corrosion (applies to UN 1751).

The substances assigned to Y6X2 are:

Substances Assigned to Y6X2							
UN#	**ICAO PSN**	**PG**	**CLASS**	**SUB**	**PASS PI**	**CARGO PI**	**LTD PI**
UN1546	AMMONIUM ARSENATE	II	6.1		613	615	Y613
UN1554	ARSENIC ACID, SOLID	II	6.1		613	615	Y613
UN1555	ARSENIC BROMIDE	II	6.1		613	615	Y613
UN1558	ARSENIC	II	6.1		613	615	Y613
UN1559	ARSENIC PENTOXIDE	II	6.1		613	615	Y613
UN1561	ARSENIC TRIOXIDE	II	6.1		613	615	Y613

UN1562	ARSENICAL DUST	II	6.1		613	615	Y613
UN1564	BARIUM COMPOUND, N.O.S.	II	6.1		613	615	Y613
UN1566	BERYLLIUM COMPOUND, N.O.S.	II	6.1		613	615	Y613
UN1567	BERYLLIUM POWDER	II	6.1	4.1	613	615	Y613
UN1572	CACODYLIC ACID	II	6.1		613	615	Y613
UN1573	CALCIUM ARSENATE	II	6.1		613	615	Y613
UN1574	CALCIUM ARSENATE AND CALCIUM ARSENITE MIXTURE, SOLID	II	6.1		613	615	Y613
UN1577	CHLORODINITROBENZENES, SOLID	II	6.1		613	615	Y613
UN1578	CHLORONITROBENZENES, SOLID	II	6.1		613	615	Y613
UN1586	COPPER ARSENITE	II	6.1		613	615	Y613
UN1587	COPPER CYANIDE	II	6.1		613	615	Y613
UN1590	DICHLOROANILINES, SOLID	II	6.1		613	615	Y613
UN1596	DINITROANILINES	II	6.1		613	615	Y613
UN1597	DINITROBENZENES, SOLID	II	6.1		613	615	Y613
UN1598	DINITRO-o-CRESOL, SOLID	II	6.1		613	615	Y613
UN1606	FERRIC ARSENATE	II	6.1		613	615	Y613
UN1607	FERRIC ARSENITE	II	6.1		613	615	Y613
UN1608	FERROUS ARSENATE	II	6.1		613	615	Y613
UN1611	HEXAETHYL TETRAPHOSPHATE, SOLID	II	6.1		613	615	Y613
UN1617	LEAD ARSENATES	II	6.1		613	615	Y613
UN1618	LEAD ARSENITES	II	6.1		613	615	Y613
UN1620	LEAD CYANIDE	II	6.1		613	615	Y613
UN1621	LONDON PURPLE	II	6.1		613	615	Y613
UN1622	MAGNESIUM ARSENATE	II	6.1		613	615	Y613
UN1623	MERCURIC ARSENATE	II	6.1		613	615	Y613
UN1624	MERCURIC CHLORIDE	II	6.1		613	615	Y613
UN1625	MERCURIC NITRATE	II	6.1		613	615	Y613
UN1627	MERCUROUS NITRATE	II	6.1		613	615	Y613
UN1629	MERCURY ACETATE	II	6.1		613	615	Y613
UN1630	MERCURY AMMONIUM CHLORIDE	II	6.1		613	615	Y613
UN1631	MERCURY BENZOATE	II	6.1		613	615	Y613
UN1634	MERCURY BROMIDES	II	6.1		613	615	Y613
UN1636	MERCURY CYANIDE	II	6.1		613	615	Y613
UN1637	MERCURY GLUCONATE	II	6.1		613	615	Y613
UN1638	MERCURY IODIDE solid	II	6.1		613	615	Y613
UN1639	MERCURY NUCLEATE	II	6.1		613	615	Y613
UN1640	MERCURY OLEATE	II	6.1		613	615	Y613

UN1641	MERCURY OXIDE	II	6.1		613	615	Y613
UN1642	MERCURY OXYCYANIDE, DESENSITIZED	II	6.1		613	615	Y613
UN1643	MERCURY POTASSIUM IODIDE	II	6.1		613	615	Y613
UN1644	MERCURY SALICYLATE	II	6.1		613	615	Y613
UN1645	MERCURY SULPHATE	II	6.1		613	615	Y613
UN1646	MERCURY THIOCYANATE	II	6.1		613	615	Y613
UN1650	beta-NAPHTHYLAMINE	II	6.1		613	615	Y613
UN1651	NAPHTHYLTHIOUREA	II	6.1		613	615	Y613
UN1652	NAPHTHYLUREA	II	6.1		613	615	Y613
UN1653	NICKEL CYANIDE	II	6.1		613	615	Y613
UN1657	NICOTINE SALICYLATE	II	6.1		613	615	Y613
UN1658	NICOTINE SULPHATE, SOLID	II	6.1		613	615	Y613
UN1659	NICOTINE TARTRATE	II	6.1		613	615	Y613
UN1661	NITROANILINES	II	6.1		613	615	Y613
UN1664	NITROTOLUENES, SOLID	II	6.1		613	615	Y613
UN1665	NITROXYLENES, SOLID	II	6.1		613	615	Y613
UN1671	PHENOL, SOLID	II	6.1		613	615	Y613
UN1674	PHENYLMERCURIC ACETATE	II	6.1		613	615	Y613
UN1677	POTASSIUM ARSENATE	II	6.1		613	615	Y613
UN1678	POTASSIUM ARSENITE	II	6.1		613	615	Y613
UN1679	POTASSIUM CUPROCYANIDE	II	6.1		613	615	Y613
UN1683	SILVER ARSENITE	II	6.1		613	615	Y613
UN1684	SILVER CYANIDE	II	6.1		613	615	Y613
UN1685	SODIUM ARSENATE	II	6.1		613	615	Y613
UN1687	SODIUM AZIDE	II	6.1		613	615	Y613
UN1688	SODIUM CACODYLATE	II	6.1		613	615	Y613
UN1691	STRONTIUM ARSENITE	II	6.1		613	615	Y613
UN1707	THALLIUM COMPOUND, N.O.S.	II	6.1		613	615	Y613
UN1708	TOLUIDINES, SOLID	II	6.1		613	615	Y613
UN1711	XYLIDINES, SOLID	II	6.1		613	615	Y613
UN1712	ZINC ARSENATE	II	6.1		613	615	Y613
UN1751	CHLOROACETIC ACID, SOLID	II	6.1	8	614	616	Y614
UN1843	AMMONIUM DINITRO-o-CRESOLATE	II	6.1		613	615	Y613
UN1885	BENZIDINE	II	6.1		613	615	Y613
UN1894	PHENYLMERCURIC HYDROXIDE	II	6.1		613	615	Y613
UN1895	PHENYLMERCURIC NITRATE	II	6.1		613	615	Y613
UN2018	CHLOROANILINES, SOLID	II	6.1		613	615	Y613

UN2027	SODIUM ARSENITE, SOLID	II	6.1		613	615	Y613
UN2038	DINITROTOLUENES, SOLID	II	6.1		613	615	Y613
UN2076	CRESOLS, SOLID	II	6.1	8	613	615	Y613
UN2250	DICHLOROPHENYL ISOCYANATES	II	6.1		613	615	Y613
UN2261	XYLENOLS	II	6.1		613	615	Y613
UN2567	SODIUM PENTACHLOROPHENATE	II	6.1		613	615	Y613
UN2587	BENZOQUINONE	II	6.1		613	615	Y613
UN2645	PHENACYL BROMIDE	II	6.1		613	615	Y613
UN2647	MALONONITRILE	II	6.1		613	615	Y613
UN2649	1,3-DICHLOROACETONE	II	6.1		613	615	Y613
UN2657	SELENIUM DISULPHIDE	II	6.1		613	615	Y613
UN2669	CHLOROCRESOLS, SOLID	II	6.1		613	615	Y613
UN2671	AMINOPYRIDINES (o-m-p-)	II	6.1		613	615	Y613
UN2727	THALLIUM NITRATE	II	6.1	5.1	613	615	Y613
UN2859	AMMONIUM METAVANADATE	II	6.1		613	615	Y613
UN2861	AMMONIUM POLYVANADATE	II	6.1		613	615	Y616
UN2863	SODIUM AMMONIUM VANADATE	II	6.1		613	615	Y613
UN2864	POTASSIUM METAVANADATE	II	6.1		613	615	Y613
UN2928	TOXIC SOLID, CORROSIVE, ORGANIC, N.O.S.*	II	6.1	8	613	615	Y613
UN2930	TOXIC SOLID, FLAMMABLE, ORGANIC, N.O.S.*	II	6.1	4.1	613	615	Y613
UN2931	VANADYL SULPHATE	II	6.1		613	615	Y613
UN3086	TOXIC SOLID, OXIDIZING, N.O.S.*	II	6.1	5.1	613	615	Y613
UN3125	TOXIC SOLID, WATER-REACTIVE, N.O.S.*	II	6.1	4.3	613	615	Y613
UN3155	PENTACHLOROPHENOL	II	6.1		613	615	Y613
UN3243	SOLIDS CONTAINING TOXIC LIQUID, N.O.S.*	II	6.1		613	615	Y613
UN3249	MEDICINE, SOLID, TOXIC, N.O.S.	II	6.1		613	615	Y613
UN3290	TOXIC SOLID, CORROSIVE, INORGANIC, N.O.S.*	II	6.1	8	613	615	Y613
UN1544	ALKALOID SALTS, SOLID, N.O.S.*	III	6.1		619	619	Y619
UN1544	ALKALOIDS, SOLID,	III	6.1		619	619	Y619

	N.O.S.*						
UN1548	ANILINE HYDROCHLORIDE	III	6.1		619	619	Y619
UN1549	ANTIMONY COMPOUND, INORGANIC, SOLID, N.O.S.	III	6.1		619	619	Y619
UN1550	ANTIMONY LACTATE	III	6.1		619	619	Y619
UN1551	ANTIMONY POTASSIUM TARTRATE	III	6.1		619	619	Y619
UN1557	ARSENIC COMPOUND, SOLID, N.O.S.	III	6.1		619	619	Y619
UN1557	ARSENIC COMPOUND, SOLID, N.O.S.	III	6.1		619	619	Y619
UN1564	BARIUM COMPOUND, N.O.S.	III	6.1		619	619	Y619
UN1566	BERYLLIUM COMPOUND, N.O.S.	III	6.1		619	619	Y619
UN1588	CYANIDES, INORGANIC, SOLID, N.O.S.*	III	6.1		619	619	Y619
UN1588	CYANIDES, INORGANIC, SOLID, N.O.S.*	III	6.1		619	619	Y619
UN1601	DISINFECTANTS, SOLID,TOXIC, N.O.S.	III	6.1		619	619	Y619
UN1601	DISINFECTANTS, SOLID,TOXIC, N.O.S.	III	6.1		619	619	Y619
UN1616	LEAD ACETATE	III	6.1		619	619	Y619
UN1655	NICOTINE PREPARATION, SOLID, N.O.S.	III	6.1		619	619	Y619
UN1655	NICOTINE COMPOUND, SOLID, N.O.S.	III	6.1		619	619	Y619
UN1663	NITROPHENOLS	III	6.1		619	619	Y619
UN1673	PHENYLENEDIAMINES	III	6.1		619	619	Y619
UN1690	SODIUM FLUORIDE	III	6.1		619	619	Y619
UN1709	2,4-TOLUYLENEDIAMINE	III	6.1		619	619	Y619
UN1812	POTASSIUM FLUORIDE	III	6.1		619	619	Y619
UN1884	BARIUM OXIDE	III	6.1		619	619	Y619
UN2020	CHLOROPHENOLS, SOLID	III	6.1		619	619	Y619
UN2025	MERCURY COMPOUND, SOLID, N.O.S.	III	6.1		619	619	Y619
UN2025	MERCURY COMPOUND, SOLID, N.O.S.	III	6.1		619	619	Y619
UN2026	PHENYLMERCURIC COMPOUND, N.O.S.	III	6.1		619	619	Y619
UN2026	PHENYLMERCURIC COMPOUND, N.O.S.	III	6.1		619	619	Y619
UN2074	ACRYLAMIDE	III	6.1		619	619	Y619
UN2077	alpha-NAPHTHYLAMINE	III	6.1		619	619	Y619
UN2233	CHLOROANISIDINES	III	6.1		619	619	Y619
UN2237	CHLORONITROANILINES	III	6.1		619	619	Y619

UN2239	CHLOROTOLUIDINES, SOLID	III	6.1		619	619	Y619
UN2291	LEAD COMPOUND, SOLUBLE, N.O.S.	III	6.1		619	619	Y619
UN2431	ANISIDINES, SOLID	III	6.1		619	619	Y619
UN2433	CHLORONITROTOLUENES, SOLID	III	6.1		619	619	Y619
UN2446	NITROCRESOLS	III	6.1		619	619	Y619
UN2473	SODIUM ARSANILATE	III	6.1		619	619	Y619
UN2505	AMMONIUM FLUORIDE	III	6.1		619	619	Y619
UN2512	AMINOPHENOLS (o-,m-,p-)	III	6.1		619	619	Y619
UN2516	CARBON TETRABROMIDE	III	6.1		619	619	Y619
UN2570	CADMIUM COMPOUND	III	6.1		619	619	Y619
UN2570	CADMIUM COMPOUND	III	6.1		619	619	Y619
UN2588	PESTICIDE, SOLID, TOXIC, N.O.S.*	III	6.1		619	619	Y619
UN2588	PESTICIDE, SOLID, TOXIC, N.O.S.*	III	6.1		619	619	Y619
UN2651	4,4'-DIAMINODIPHENYLMETHANE	III	6.1		619	619	Y619
UN2655	POTASSIUM FLUOROSILICATE	III	6.1		619	619	Y619
UN2659	SODIUM CHLOROACETATE	III	6.1		619	619	Y619
UN2660	NITROTOLUIDINES (MONO)	III	6.1		619	619	Y619
UN2662	HYDROQUINONE	III	6.1		619	619	Y619
UN2674	SODIUM FLUOROSILICATE	III	6.1		619	619	Y619
UN2713	ACRIDINE	III	6.1		619	619	Y619
UN2729	HEXACHLOROBENZENE	III	6.1		619	619	Y619
UN2730	NITROANISOLE, SOLID	III	6.1		616	616	Y616
UN2732	NITROBROMOBENZENE, SOLID	III	6.1		619	619	Y619
UN2753	N-ETHYLBENZYLTOLUIDINES, SOLID	III	6.1		619	619	Y619
UN2757	CARBAMATE PESTICIDE, SOLID, TOXIC*	III	6.1		619	619	Y619
UN2757	CARBAMATE PESTICIDE, SOLID, TOXIC*	III	6.1		619	619	Y619
UN2759	ARSENICAL PESTICIDE, SOLID, TOXIC*	III	6.1		619	619	Y619
UN2759	ARSENICAL PESTICIDE, SOLID, TOXIC*	III	6.1		619	619	Y619
UN2761	ORGANOCHLORINE	III	6.1		619	619	Y619

	PESTICIDE, SOLID, TOXIC*						
UN2761	ORGANOCHLORINE PESTICIDE, SOLID, TOXIC*	III	6.1		619	619	Y619
UN2763	TRIAZINE PESTICIDE, SOLID, TOXIC*	III	6.1		619	619	Y619
UN2763	TRIAZINE PESTICIDE, SOLID, TOXIC*	III	6.1		619	619	Y619
UN2765	PHENOXY PESTICIDE, SOLID, TOXIC*	III	6.1		619	619	Y619
UN2765	PHENOXY PESTICIDE, SOLID, TOXIC*	III	6.1		619	619	Y619
UN2767	PHENYL UREA PESTICIDE, SOLID, TOXIC*	III	6.1		619	619	Y619
UN2767	PHENYL UREA PESTICIDE, SOLID, TOXIC*	III	6.1		619	619	Y619
UN2769	BENZOIC DERIVATIVE PESTICIDE, SOLID, TOXIC*	III	6.1		619	619	Y619
UN2769	BENZOIC DERIVATIVE PESTICIDE, SOLID, TOXIC*	III	6.1		619	619	Y619
UN2771		III	6.1		619	619	Y619
UN2771	THIOCARBAMATE PESTICIDE, SOLID, TOXIC*	III	6.1		619	619	Y619
UN2771	THIOCARBAMATE PESTICIDE, SOLID, TOXIC*	III	6.1		619	619	Y619
UN2771		III	6.1		619	619	Y619
UN2773	PHTHALIMIDE DERIVATIVE PESTICIDE, SOLID, TOXIC*	III	6.1		619	619	Y619
UN2773	PHTHALIMIDE DERIVATIVE PESTICIDE, SOLID, TOXIC*	III	6.1		619	619	Y619
UN2775	COPPER BASED PESTICIDE, SOLID, TOXIC*	III	6.1		619	619	Y619
UN2775	COPPER BASED PESTICIDE, SOLID, TOXIC*	III	6.1		619	619	Y619
UN2777	MERCURY BASED PESTICIDE, SOLID, TOXIC*	III	6.1		619	619	Y619
UN2777	MERCURY BASED	III	6.1		619	619	Y619

	PESTICIDE, SOLID, TOXIC*						
UN2779	SUBSTITUTED NITROPHENOL PESTICIDE, SOLID, TOXIC*	III	6.1		619	619	Y619
UN2779	SUBSTITUTED NITROPHENOL PESTICIDE, SOLID, TOXIC*	III	6.1		619	619	Y619
UN2781	BIPYRIDILIUM PESTICIDE, SOLID, TOXIC*.	III	6.1		619	619	Y619
UN2781	BIPYRIDILIUM PESTICIDE, SOLID, TOXIC*.	III	6.1		619	619	Y619
UN2783	ORGANOPHOSPHORUS PESTICIDE, SOLID, TOXIC*	III	6.1		619	619	Y619
UN2783	ORGANOPHOSPHORUS PESTICIDE, SOLID, TOXIC*	III	6.1		619	619	Y619
UN2786	ORGANOTIN PESTICIDE, SOLID, TOXIC*	III	6.1		619	619	Y619
UN2786	ORGANOTIN PESTICIDE, SOLID, TOXIC*	III	6.1		619	619	Y619
UN2811	TOXIC SOLID, ORGANIC, N.O.S.*	III	6.1		619	619	Y619
UN2811	TOXIC SOLID, ORGANIC, N.O.S.*	III	6.1		619	619	Y619
UN2853	MAGNESIUM FLUOROSILICATE	III	6.1		619	619	Y619
UN2854	AMMONIUM FLUOROSILICATE	III	6.1		619	619	Y619
UN2855	ZINC FLUOROSILICATE	III	6.1		619	619	Y619
UN2856	FLUOROSILICATES, N.O.S.	III	6.1		619	619	Y619
UN2862	VANADIUM PENTOXIDE	III	6.1		619	619	Y619
UN2871	ANTIMONY POWDER	III	6.1		619	619	Y619
UN2875	HEXACHLOROPHENE	III	6.1		619	619	Y619
UN2876	RESORCINOL	III	6.1		619	619	Y619
UN3027	COUMARIN DERIVATIVE PESTICIDE, SOLID, TOXIC*	III	6.1		619	619	Y619
UN3027	COUMARIN DERIVATIVE PESTICIDE, SOLID, TOXIC*	III	6.1		619	619	Y619
UN3143	DYE, SOLID, TOXIC, N.O.S.*	III	6.1		619	619	Y619

UN3143	DYE INTERMEDIATE, SOLID, TOXIC, N.O.S.*	III	6.1		619	619	Y619
UN3146	ORGANOTIN COMPOUND, SOLID, N.O.S.	III	6.1		619	619	Y619
UN3146	ORGANOTIN COMPOUND, SOLID, N.O.S.	III	6.1		619	619	Y619
UN3172	TOXINS, EXTRACTED FROM LIVING SOURCES, SOLID, N.O.S.	III	6.1		619	619	Y619
UN3172	TOXINS, EXTRACTED FROM LIVING SOURCES, SOLID, N.O.S.	III	6.1		619	619	Y619
UN3249	MEDICINE, SOLID, TOXIC, N.O.S.	III	6.1		613	615	Y613
UN3276	NITRILES, TOXIC, N.O.S.*, solid	III	6.1		619	619	Y619
UN3276	NITRILES, TOXIC, N.O.S.*, solid	III	6.1		619	619	Y619
UN3278	ORGANOPHOSPHORUS COMPOUND, TOXIC, N.O.S.* solid	III	6.1		619	619	Y619
UN3278	ORGANOPHOSPHORUS COMPOUND, TOXIC, N.O.S.* solid	III	6.1		619	619	Y619
UN3280	ORGANOARSENIC COMPOUND, N.O.S.*, SOLID	III	6.1		619	619	Y619
UN3280	ORGANOARSENIC COMPOUND, N.O.S.*, SOLID	III	6.1		619	619	Y619
UN3281	METAL CARBONYLS, N.O.S.*, solid	III	3281	6.1	619	619	Y619
UN3281	METAL CARBONYLS, N.O.S.*, solid	III	3281	6.1	619	619	Y619
UN3282	ORGANOMETALLIC COMPOUND, TOXIC, N.O.S.*, solid	III	6.1		619	619	Y619
UN3282	ORGANOMETALLIC COMPOUND, TOXIC, N.O.S.*, solid	III	6.1		619	619	Y619
UN3283	SELENIUM COMPOUND, N.O.S.	III	6.1		619	619	Y619
UN3283	SELENIUM COMPOUND, N.O.S.	III	6.1		619	619	Y619
UN3284	TELLURIUM COMPOUND, N.O.S.	III	6.1		619	619	Y619
UN3284	TELLURIUM COMPOUND, N.O.S.	III	6.1		619	619	Y619
UN3285	VANADIUM COMPOUND,	III	6.1		619	619	Y619

	N.O.S.						
UN3285	VANADIUM COMPOUND, N.O.S.	III	6.1		619	619	Y619
UN3288	TOXIC SOLID, INORGANIC, N.O.S.*	III	6.1		619	619	Y619
UN3288	TOXIC SOLID, INORGANIC, N.O.S.*	III	6.1		619	619	Y619
UN3345	PHENOXYACETIC ACID DERIVATIVE PESTICIDE, SOLID, TOXIC*	III	6.1		619	619	Y619
UN3345	PHENOXYACETIC ACID DERIVATIVE PESTICIDE, SOLID, TOXIC*	III	6.1		619	619	Y619
UN3349	PYRETHROID PESTICIDE, SOLID, TOXIC*	III	6.1		619	619	Y619
UN3349	PYRETHROID PESTICIDE, SOLID, TOXIC*	III	6.1		619	619	Y619

622	**PACKING INSTRUCTION 622**	**622**

The general packing requirements of Part 4, Chapter 1 must be met.

Consignments must be prepared in such a manner that they arrive at their destination in good condition and present no hazard to persons or animals during transport.

Consignments must be packed in steel drums (1A2), aluminium drums (1B2), plywood drums (1D), fibre drums (1G), plastic drums (1H2), steel jerricans (3A2), plastic jerricans (3H2), wooden boxes (4C1, 4C2), plywood boxes (4D), reconstituted wood boxes (4F) or fibreboard boxes (4G). Packagings must meet Packing Group II requirements.
The packaging tests may be those appropriate for solids when there is sufficient absorbent material to absorb the entire amount of liquid present and the packaging is capable of retaining liquids.

In all other circumstances, the packaging tests must be those appropriate for liquids. Packagings intended to contain sharp objects such as broken glass and needles must be resistant to puncture and retain liquids under the performance test conditions for the packaging.

Notes: No change.

The proper shipping names and UN numbers assigned to PI 622 are:

UN#	ICAO PSN	PG	CLASS	SUB	PASS PI	CARGO PI
UN3291	REGULATED MEDICAL WASTE	II	6.2		622	622

650	PACKING INSTRUCTION 650	650

The packing instruction working group did not address this because it will be updated according to the 13th revised ed. of the UN Model Regulations.

Class 8

800 PACKING INSTRUCTION 800 800

Batteries must be packed in accordance with the general packing requirements of Part 4, Chapter 1 and be in wooden (4C1, 4C2), plywood (4D), fibreboard (4G) or reconstituted wood (4F) boxes, plywood drums (1D), fibre drums (1G), plastic drums (1H2), plastic jerricans (3H2) or solid plastic boxes (4H2) of Packing Group II and must incorporate an acid/alkali-proof liner of sufficient strength and adequately sealed to positively preclude leakage in the event of spillage. The batteries must be packed so that the fill openings and vents, if any, are upward; they must be incapable of short-circuiting and be securely cushioned in the packagings. The upright position of the package must be indicated on it by the APackage Orientation@ label shown in Part 5;3.2.10 b). The words AThis side up@ or AThis end up@ may also be displayed on the top of the package.

If batteries are shipped as an integral component of assembled equipment, they must be securely installed and fastened in an upright position and protected against contact with other articles so as to prevent short circuits. Batteries must be removed and packed according to this Packing Instruction if the assembled equipment is likely to be carried in other than an upright position.

For batteries, electric storage, packed with battery fluid in the same outer packaging, see UN Numbers 2796 and 2797.

Notes: No changes
This packing instruction applies to UN2794, Batteries, wet , filled with acid and UN2795, Batteries, wet, filled with alkali.

801 PACKING INSTRUCTION 801 801

Bombs, smoke may be carried provided they are without ignition elements, bursting charges, detonating fuses or other explosive components and when packed according to the general packing requirements of Part 4, Chapter 1 and in wooden (4C1, 4C2), plywood (4D) or reconstituted wood (4F) boxes, or plywood drums (1D).

Notes: No changes
This packing instruction applies to UN2028, Bombs, smoke, non-explosive.

802 PACKING INSTRUCTION 802 802

Batteries, dry, containing potassium hydroxide solid must be packed in accordance with the general packing requirements of Part 4, Chapter 1 and be in wooden (4C1, 4C2), plywood (4D), fibreboard (4G), solid plastic (4H2) or reconstituted wood (4F) boxes of Packing Group II. The batteries must be securely cushioned in the packagings.

Notes: No changes
This packing instruction applies to UN3028, Batteries, dry, containing potassium hydroxide, solid.

8XX PACKING INSTRUCTION 8XX 8XX

The general packing requirements of Part 4, Chapter 1 must be met.

COMBINATION PACKAGINGS:

INNER:

The following inner packagings are authorized for the indicated quantities for passenger or cargo aircraft. When a packaging is not permitted the word “prohibited” is indicated.

	Mercury	***Gallium***
Glass or earthen ware (IP.1)	3.5 kg	Prohibited
Plastic (IP.2)	3.5 kg	2.5 kg
Iron or steel "quicksilver flask"	35 kg	Prohibited

OUTER:

Boxes	***Drums***	***Jerricans***
fibreboard (4G) plywood (4D) reconstituted wood (4F) expanded plastic (4H1) solid plastic (4H2) steel (4A) wooden (4C1, 4C2)	fibre (1G) plastic (1H2) plywood (1D) steel (1A2) other metal (1N2)	plastic (3H2) steel (3A2)

Additional Requirements

Either the inner packagings or the outer packagings shall have inner liners or bags of strong leakproof and puncture resistant material impervious to the contents and completely surrounding the contents to prevent it from escaping from the package irrespective of its position or orientation. Combination packagings must meet Packing Group I performance requirements.

Particular Packing Requirements

PPR 8XX-1 UN 2809 may also be packed in a single packaging which may only be a welded steel bottle with an inner vaulted bottom, an opening not exceeding 20 mm and a closure which must be a bolt with a conical thread.

PPR 8XX-2 For UN 2803, when it is necessary to transport Gallium at low temperatures in order to maintain it in a completely solid state, the authorised packagings may be overpacked in a strong water-resistant outer packaging which contains dry ice or other means of refrigeration. If a refrigerant is used, all of the above materials used in the packaging of gallium shall be chemically and physically resistant to the refrigerant and shall have impact resistance at the low temperatures of the refrigerant employed. If dry ice is used, the outer packaging shall permit the release of carbon dioxide gas.

Notes This packing instruction merges existing packing instructions 803 and 804, and aligns the format more closely with UN packing instruction 800. Quantity limits have not been changed.

Some additional outer packagings have been included to align with UN and to remove inconsistencies (i.e. 4A, 4H1, 1H2, 3H2, and 1N2 are now permitted).

The packing instruction applies only to UN 2803 Gallium and UN 2809 Mercury

805 PACKING INSTRUCTION 805 805

The general packing requirements of Part 4, Chapter 1 must be met.

a) Except as otherwise provided for in b) below, manufactured articles or apparatuses of which metallic mercury is a component part, such as manometers, pumps, thermometers, switches, etc., must be in strong outer packagings, having sealed inner liners or bags of strong leak-proof and puncture-resistant material impervious to mercury which will prevent the escape of mercury from the package irrespective of its position. Mercury switches and relays are excepted from the requirement for a sealed inner liner or bag providing they are of the totally enclosed leakproof type in sealed metal or plastic units.

b) Electron tubes, mercury vapour tubes and similar tubes must be packed as follows:

1) tubes which are packed in strong outer packagings with all seams and joints sealed with self-adhesive, pressure-sensitive tape which will prevent the escape of mercury from the package, may be accepted up to a total net quantity of 450 g of mercury per package;

2) tubes with more than 450 g of mercury are permitted only when packed in strong outer packagings, having sealed inner liners or bags of strong leak-proof and puncture-resistant material impervious to mercury which will prevent escape of mercury from the package irrespective of its position;

3) tubes which do not contain more than 5 g of mercury each and which are packed in the manufacturer=s original packagings, may be accepted up to a total net quantity of 30 g of mercury per package; and

4) tubes which are completely jacketed in sealed leakproof metal cases may be accepted in the manufacturer=s original packagings;

c) For electron tubes, mercury vapour tubes and similar tubes the shipper must indicate the quantity of mercury on the dangerous goods transport document.

Thermometers, switches and relays, each containing a total quantity of not more than 15 g of mercury, are excepted from the requirements of these Instructions if they are installed as an integral part of a machine or apparatus and so fitted that shock or impact damage, leading to leakage of mercury, is unlikely to occur under conditions normally incident to transport.

Notes: No changes
This packing instruction relates to UN 2809, Mercury contained in manufactured articles.

806 PACKING INSTRUCTION 806 806

Batteries can be considered as non-spillable provided that they are capable of withstanding the vibration and pressure differential tests given below, without leakage of battery fluid.

Vibration test: The battery is rigidly clamped to the platform of a vibration machine and a simple harmonic motion having an amplitude of 0.8 mm (1.6 mm maximum total excursion) is applied. The frequency is varied at the rate of 1 Hz/min between the limits of 10 Hz to 55 Hz. The entire range of frequencies and return is traversed in 95 ± 5 minutes for each mounting position (direction of vibration) of the battery. The battery must be tested in three mutually perpendicular positions (to include testing with fill openings and vents, if any, in an inverted position) for equal time periods.

Pressure differential test: Following the vibration test, the battery is stored for six hours at 24°C ±4°C while subjected to a pressure differential of at least 88 kPa. The battery must be tested in three mutually perpendicular positions (to include testing with fill openings and vents, if any, in an inverted position) for at least six hours in each position.

Batteries must be protected against short circuits and must be securely packed in strong outer packagings.

Note. **C** *Non-spillable type batteries which are an integral part of and necessary for the operation of mechanical or electronic equipment, must be securely fastened in the battery holder on the equipment and protected in such a manner as to prevent damage and short circuits.*

Notes: No changes
This packaging instruction covers UN 2800, Batteries, wet, non-spillable.
It is pointed out that UN deals with the classification requirements for UN 2800 (i.e. Vibration and pressure differential tests detailed above) in Special Provision 238. The Panel may wish to consider whether that would be a more appropriate location for this text.

8X1 PACKING INSTRUCTION 8X1 8X1

The general packing requirements of Part 4, Chapter 1 must be met.

COMBINATION PACKAGINGS:

INNER:

The following inner packagings are authorized for the indicated quantities of liquid for passenger or cargo aircraft.

	Passenger Aircraft			***Cargo Aircraft***		
	PG I	*PG II*	*PG III* ***(AR1)***	*PG I*	*PG II*	*PG III* ***(AR1)***
Glass or earthen ware (IP.1)	0.5 L	1 L	2.5 L	1 L	2.5 L	5 L
Plastic (IP.2)	0.5 L	1 L	2.5 L	1 L	2.5 L	5 L
Metal (IP.3, IP.3A)	0.5 L	1 L	5 L	1 L	2.5 L	10 L

OUTER:

Boxes	***Drums***	***Jerricans***
aluminium (4B)	aluminium (1B2)	aluminium (3B2)
fibreboard (4G)	fibre (1G)	plastic (3H2)
plywood (4D)	plastic (1H2)	steel (3A2)
reconstituted wood (4F)	plywood (1D)	
expanded plastic (4H1)	steel (1A2)	
solid plastic (4H2)	other metal (1N2)	
steel (4A)		
wooden (4C1, 4C2)		

SINGLE PACKAGINGS:

Passenger Aircraft			***Cargo Aircraft***		
PG I	PG II	PG III	PG I	PG II	PG III ***(AR1)***
				Drums: 1A1, 1B1, 1H1, 1N1	**Drums:** 1A1, 1B1, 1H1, 1N1
				Jerricans: 3A1, 3H1	**Jerricans:** 3A1, 3H1
NOT ALLOWED				**Composite (plastic):** 6HA1, 6HB1, 6HG1, 6HH1, 6HD1, 6HA2, 6HB2, 6HC, 6HD2, 6HG2, 6HH2 **Cylinders:** As permitted in Packing Instruction 200	**Composite (plastic):** 6HA1, 6HB1, 6HG1, 6HH1, 6HD1, 6HA2, 6HB2, 6HC, 6HD2, 6HG2, 6HH2 **Cylinders:** As permitted in Packing Instruction 200

Additional Requirements

AR1 Packagings for Packing Group III substances must meet Packing Group II performance requirements

Particular Packing Requirements

PPR8X1 For UN 1732, single packagings are not permitted

PPR8X2 For UN 1715, 1732, 1777, 2029, 2789 and 2790, plastic inner packagings must be packed in tightly closed metal or rigid plastic receptacles before packing in outer packaging

PPR8X3 For UN 1715, 1732, 1777, 1828, 2029, 2401, 2604 and 2789, glass or earthenware inner packagings must be packed with absorbent material in tightly closed metal or rigid plastics inner packagings before packing in outer packagings

PPR8X4 For UN 1777 and 1732, glass or earthenware inner packagings are permitted if the item is free from hydrofluoric acid

Notes:

This packing instruction combines the substances in the existing packing instructions 808, 812, 818, 820 and the additional substances UN1715, 1732, 1777, 1828, 2029, 2401, 2604, 2789 and 2790.
Inner quantity limits have not been changed, with the exception of UN 2029 (see below).
PPR8X2 is the former PPR2
PPR8X3 is the former PPR13
PPR8X4 is the former PPR21

UN2029 PGI (Hydrazine, anhydrous), is permitted in cargo aircraft only, in glass/plastic inner receptacles up to 0.5 L, and metal inners up to 2.5 L. It may also be packed in single packagings 1A1, 1B1, 3A1, all composites, and

cylinders. This is out of step with all other corrosive packing group I liquids.

The following PPRs are judged to be compatibility issues, and have been removed from the packing instruction for the timebeing.

PPR8XX For UN 1715, 1732, 1777, 1828, 2029 and 2789, steel packagings must be corrosion-resistant or with protection against corrosion
PPR8XY For UN 1715, 1732, 1777, 1828, 2029, 2401 and 2789, when aluminium or aluminium alloys are used they must be resistant to corrosion

The UN numbers and proper shipping names assigned to 8X1 are:

UN#	ICAO PSN	PG	CLASS	SUB	PASS PI	CARGO	PP
UN1777	FLUOROSULPHONIC ACID	I	8		807	809	2,5,7,13,21
UN1828	SULPHUR CHLORIDES	I	8		FORBIDDEN	809	
UN2029	HYDRAZINE, ANHYDROUS	I	8	3, 6.1	FORBIDDEN	813	
UN2401	PIPERIDINE	I	8	3	807	809	7,13
UN2604	BORON TRIFLUORIDE DIETHYL ETHERATE	I	8	3	807	809	13
UN1604	ETHYLENEDIAMINE	II	8	3	808	812	
UN1715	ACETIC ANHYDRIDE	II	8	3	809	813	2,5,7,13
UN1716	ACETYL BROMIDE	II	8		808	812	
UN1729	ANISOYL CHLORIDE	II	8		808	812	
UN1730	ANTIMONY PENTACHLORIDE, LIQUID	II	8		808	812	
UN1731	ANTIMONY PENTACHLORIDE SOLUTION	II	8		808	812	
UN1732	ANTIMONY PENTAFLUORIDE	II	8	6.1	FORBIDDEN	813	
UN1733	ANTIMONY TRICHLORIDE, LIQUID	II	8		808	812	
UN1736	BENZOYL CHLORIDE	II	8		808	812	
UN1742	BORON TRIFLUORIDE ACETIC ACID COMPLEX	II	8		808	812	
UN1743	BORON TRIFLUORIDE PROPIONIC ACID COMPLEX	II	8		808	812	
UN1755	CHROMIC ACID SOLUTION	II	8		808	812	
UN1757	CHROMIC FLUORIDE SOLUTION	II	8		808	812	
UN1761	CUPRIETHYLENEDIAMINE SOLUTION	II	8	6.1	808	812	
UN1779	FORMIC ACID	II	8		808	812	
UN1780	FUMARYL CHLORIDE	II	8		808	812	
UN1783	HEXAMETHYLENEDIAMINE SOLUTION	II	8		808	812	
UN1817	PYROSULPHURYL CHLORIDE	II	8		808	812	
UN1819	SODIUM ALUMINATE SOLUTION	II	8		808	812	
UN1827	STANNIC CHLORIDE, ANHYDROUS	II	8		808	812	
UN1833	SULPHUROUS ACID	II	8		808	812	
UN1835	TETRAMETHYLAMMONIUM HYDROXIDE	II	8		808	812	
UN1898	ACETYL IODIDE	II	8		808	812	
UN2030	HYDRAZINE HYDRATE	II	8	6.1	FORBIDDEN	812	
UN2051	2-DIMETHYLAMININOETHANOL	II	8	3	808	812	

UN#	ICAO PSN	PG	CLASS	SUB	PASS PI	CARGO PI	PP
UN2079	DIETHYLENETRIAMINE	II	8		808	812	
UN2218	ACRYLIC ACID, STABILIZED	II	8	3	808	812	
UN2226	BENZOTRICHLORIDE	II	8		808	812	
UN2248	DI-n-BUTYLAMINE	II	8	3	808	812	
UN2259	TRIETHYLENETETRAMINE	II	8		808	812	
UN2262	DIMETHYLCARBAMOYL CHLORIDE	II	8		808	812	
UN2264	DIMETHYLCYCLOHEXYLAMINE	II	8	3	808	812	
UN2305	NITROBENZENESULPHONIC ACID	II	8		808	812	
UN2357	CYCLOHEXYLAMINE	II	8	3	808	812	
UN2434	DIBENZYLDICHLOROSILANE	II	8		808	812	
UN2437	METHYLPHENYLDICHLOROSILANE	II	8		808	812	
UN2513	BROMOACETYL BROMIDE	II	8		808	812	
UN2531	METHACRYLIC ACID, STABILIZED	II	8		808	812	
UN2571	ALKYLSULPHURIC ACIDS*	II	8		808	812	
UN2577	PHENYLACETYL CHLORIDE	II	8		808	812	
UN2584	ALKYLSULPHONIC ACIDS, LIQUID with more than 5% free sulphuric acid	II	8		808	812	
UN2619	BENZYLDIMETHYLAMINE	II	8	3	808	812	
UN2683	AMMONIUM SULPHIDE SOLUTION	II	8	3, 6.1	808	812	
UN2685	N,N-DIETHYLETHYLENEDIAMINE	II	8	3	808	812	
UN2686	2-DIETHYLAMINOETHANOL	II	8	3	808	812	
UN2705	1-PENTOL	II	8		808	812	
UN2734	AMINES, LIQUID, CORROSIVE, FLAMMABLE, N.O.S.*	II	8	3	808	812	
UN2789	ACETIC ACID SOLUTION, more than 80% acid by mass	II	8	3	809	813	2,5,7,13
UN2789	ACETIC ACID, GLACIAL	II	8	3	809	813	2,5,7,13
UN2790	ACETIC ACID SOLUTION, not less than 50% but not more than 80% acid by mass	II	8		809	813	2,5,7,13
UN2798	PHENYLPHOSPHORUS DICHLORIDE	II	8		FORBIDDEN	812	
UN2799	PHENYLPHOSPHORUS THIODICHLORIDE	II	8		FORBIDDEN	812	
UN2818	AMMONIUM POLYSULPHIDE SOLUTION	II	8	6.1	808	812	
UN2920	CORROSIVE LIQUID, FLAMMABLE, N.O.S.*	II	8	3	808	812	
UN2986	CHLOROSILANES, CORROSIVE, FLAMMABLE, N.O.S.	II	8	3	808	812	

UN#	ICAO PSN	PG	CLASS	SUB	PASS PI	CARGO PP
UN2987	CHLOROSILANES, CORROSIVE, N.O.S.	II	8		808	812
UN3066	PAINT (including paint, lacquer, enamel, stain, shellac, varnish, polish, liquid filler and liquid lacquer base)	II	8		808	812
UN3301	CORROSIVE LIQUID, SELF-HEATING, N.O.S.*	II	8	4.2	808	812
UN1718	BUTYL ACID PHOSPHATE	III	8		818	820
UN1731	ANTIMONY PENTACHLORIDE SOLUTION	III	8		818	820
UN1755	CHROMIC ACID SOLUTION	III	8		818	820
UN1757	CHROMIC FLUORIDE SOLUTION	III	8		818	820
UN1760	CORROSIVE LIQUID, N.O.S.*	III	8		818	820
UN1760	CORROSIVE LIQUID, N.O.S.*	III	8		818	820
UN1761	CUPRIETHYLENEDIAMINE SOLUTION	III	8	6.1	818	820
UN1783	HEXAMETHYLENEDIAMINE SOLUTION	III	8		818	820
UN1819	SODIUM ALUMINATE SOLUTION	III	8		818	820
UN1840	ZINC CHLORIDE SOLUTION	III	8		818	820
UN1848	PROPIONIC ACID	III	8		818	820
UN1902	DIISOOCTYL ACID PHOSPHATE	III	8		818	820
UN1903	DISINFECTANTS, LIQUID, CORROSIVE, N.O.S.*	III	8		818	820
UN1903	DISINFECTANTS, LIQUID, CORROSIVE, N.O.S.*	III	8		818	820
UN2209	FORMALDEHYDE SOLUTION with not less than 25% formaldehyde	III	8		818	820
UN2225	BENZENESULPHONYL CHLORIDE	III	8		818	820
UN2269	3,3'-IMINODIPROPYLAMINE	III	8		818	820
UN2289	ISOPHORONEDIAMINE	III	8		818	820
UN2320	TETRAETHYLENEPENTAMINE	III	8		818	820
UN2326	TRIMETHYLCYCLOHEXYLAMINE	III	8		818	820
UN2327	TRIMETHYLHEXAMETHYLENEDIAMINES	III	8		818	820
UN2491	ETHANOLAMINE	III	8		818	820
UN2496	PROPIONIC ANHYDRIDE	III	8		818	820
UN2511	2-CHLOROPROPIONIC ACID, SOLUTION	III	8		818	820
UN2565	DICYCLOHEXYLAMINE	III	8		818	820
UN2580	ALUMINIUM BROMIDE SOLUTION	III	8		818	820
UN2581	ALUMINIUM CHLORIDE SOLUTION	III	8		818	820

UN#	ICAO PSN	PG	CLASS	SUB	PASS PI	CARGO PP
UN2582	FERRIC CHLORIDE SOLUTION	III	8		818	820
UN2586	ALKY SULPHONIC ACIDS, LIQUID with not more than 5% free sulphuric acid	III	8		818	820
UN2693	BISULPHITES, AQUEOUS SOLUTION, N.O.S.	III	8		818	820
UN2735	AMINES, LIQUID, CORROSIVE, N.O.S.*	III	8		818	820
UN2735	POLYA MINES, LIQUID, CORROSIVE, N.O.S.*	III	8		818	820
UN2739	BUTYRIC ANHYDRIDE	III	8		818	820
UN2790	ACETIC ACID SOLUTION, more than 10% but less than 50% acid, by mass	III	8		818	820
UN2801	DYE, LIQUID, CORROSIVE, N.O.S.*	III	8		818	820
UN2801	DYE INTERMEDIATE, LIQUID, CORROSIVE, N.O.S.*	III	8		818	820
UN2815	N-AMINOETHYLPIPERAZINE	III	8		818	820
UN2818	AMMONIUM POLYSULPHIDE SOLUTION	III	8	6.1	818	820
UN2819	AMYL ACID PHOSPHATE	III	8		818	820
UN2820	BUTYRIC ACID	III	8		818	820
UN2823	CROTONIC ACID, LIQUID	III	8		818	820
UN2829	CAPROIC ACID	III	8		818	820
UN2904	CHLOROPHENOLATES, LIQUID	III	8		818	820
UN2922	CORROSIVE LIQUID, TOXIC, N.O.S.*	III	8	6.1	818	820
UN2922	CORROSIVE LIQUID, TOXIC, N.O.S.*	III	8	6.1	818	820
UN3055	2-(2-AMINOETHOXY) ETHANOL	III	8		818	820
UN3066		III	8		818	820
UN3145	ALKYLPHENOLS, LIQUID, N.O.S. (including C2-C12 homologues)	III	8		818	820
UN3145	ALKYLPHENOLS, LIQUID, N.O.S. (including C2-C12 homologues)	III	8		818	820
UN3264	CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S.*	III	8		818	820
UN3264	CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S.*	III	8		818	820
UN3265	CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S.*	III	8		818	820
UN3265	CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S.*	III	8		818	820
UN3266	CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S.*	III	8		818	820
UN3266	CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S.*	III	8		818	820
UN3267	CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S.*	III	8		818	820

UN3267	CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S.*	III	8		818	820

8X2 PACKING INSTRUCTION 8X2 8X2

The general packing requirements of Part 4, Chapter 1 must be met.

COMBINATION PACKAGINGS:

INNER:

The following inner packagings are authorized for the indicated quantities of liquid for passenger or cargo aircraft.

	Passenger Aircraft			*Cargo Aircraft*		
	PG I	*PG II*	*PG III* ***(AR1)***	*PG I*	*PG II*	*PG III* ***(AR1)***
Glass or earthen ware (IP.1)	0.5 L	1 L	2.5 L	1 L	2.5 L	5 L
Plastic (IP.2)	0.5 L	1 L	2.5 L	1 L	2.5 L	5 L
Metal (IP.3) (not aluminium)	0.5 L	1 L	2.5 L	1 L	2.5 L	5 L

OUTER:

Boxes	***Drums***	***Jerricans***
aluminium (4B)	aluminium (1B2)	aluminium (3B2)
fibreboard (4G)	fibre (1G)	plastic (3H2)
plywood (4D)	plastic (1H2)	steel (3A2)
reconstituted wood (4F)	plywood (1D)	
expanded plastic (4H1)	steel (1A2)	
solid plastic (4H2)	other metal (1N2)	
steel (4A)		
wooden (4C1, 4C2)		

SINGLE PACKAGINGS:

Passenger Aircraft			***Cargo Aircraft***		
PG I	PG II	PG III	PG I	PG II	PG III ***(AR1)***
				Drums: 1A1, 1H1, 1N1	**Drums:** 1A1, 1H1, 1N1
				Jerricans: 3A1, 3H1	**Jerricans:** 3A1, 3H1
				Composite (plastic): 6HA1, 6HB1, 6HG1, 6HH1, 6HD1, 6HA2, 6HB2, 6HC, 6HD2, 6HG2, 6HH2	**Composite (plastic):** 6HA1, 6HB1, 6HG1, 6HH1, 6HD1, 6HA2, 6HB2, 6HC, 6HD2, 6HG2, 6HH2
				Cylinders: As permitted in Packing Instruction 200	**Cylinders:** As permitted in Packing Instruction 200

NOT ALLOWED

Additional Requirements

AR1 Packagings for Packing Group III substances must meet Packing Group II performance requirements

Particular Packing Requirements

PPR8X1 For UN 1802 and 2031, single packa gings are not permitted

PPR8X2 For UN 1758, 1760, 1764, 1765, 1768, 1775, 1776, 1778, 1782, 1786, 1787, 1788, 1789 (PGII), 1790, 1808, 1818, 1838, 1903, 1908 (PGII), 2031, 2054, 2240, 2258, 2308, 2443, 2444, 2502, 2564 (PGII), 2692, 2699, 2734, 2735, 2801, 2879, 2920, 2922, 3093, 3094, 3145, 3264, 3265, 3266, 3267 and 3301, plastic inner packagings must be packed in tightly closed metal or rigid plastic receptacles before packing in outer packaging

PPR8X3 For, UN1739, 1758, 1760, 1764, 1765, 1787, 1788, 1789, 1796, 1798, 1808, 1818, 1826, 1830, 1832, 1837, 1838, 1903, 1906, 1908, 2031, 2054, 2240, 2258, 2308, 2444, 2502, 2564, 2692, 2699, 2734, 2735, 2796, 2801, 2879, 2920, 2922, 3093, 3094, 3145, 3264, 3265, 3266, 3267 and 3301, glass or earthenware inner packagings must be packed with absorbent material in tightly closed metal or rigid plastics inner packagings before packing in outer packagings

PPR8X4 For UN 1740, 1775, 1776, 1778, 1782 and 2699, glass or earthenware inner packagings are permitted if the item is free from hydrofluoric acid

PPR8X5 For UN 1740, 1768, 1786, 1790, 1811, 2439 and 2817, glass or earthenware inner packagings are not permitted

PPR8X6 For UN 1796, 1798, 1826 and 2031, plastic inner or single packagings are not permitted

PPR8X7 For UN 1739, 1774, 1787, 1788, 1789, 1798, 1802, 1803, 1818, 1838 and 2031, metal inner or single packagings are not permitted

Notes:

This packing instruction combines the majority of substances in the existing packing instructions 807, 809, 813, 819 and 821.

Inner quantity limits have not been changed.

PPR8X2 is the former PPR2

PPR8X3 is the former PPR13
PPR8X4 is the former PPR21

The following PPRs are judged to be a compatibility issue and have been left out of the packing instruction for the timebeing.

PPR8XX For UN1724, 1728, 1747, 1753, 1758, 1762, 1763, 1764, 1765, 1766, 1767, 1768, 1769, 1771, 1775, 1776, 1778, 1781, 1782, 1784, 1786, 1790, 1791, 1796, 1799, 1800, 1801, 1804, 1808, 1810, 1816, 1826, 1830, 1832, 1837, 1906, 1940, 2240, 2308, 2435, 2443, 2444, 2502, 2564, 2692, 2699, 2796, 2879, 3093 and 3094, steel packagings must be corrosion-resistant or with protection against corrosion
PPR8XZ For UN 1724, 1728, 1732, 1747, 1753, 1762, 1763, 1766, 1767, 1769, 1771, 1784, 1787, 1788, 1799, 1800, 1801, 1803, 1804, 1816, 2029, 2435 and 2443, plastic single packagings are not permitted

In addition, PPRs 8X2 and 8X3 are messy. These apply to many substances, some of which (but not all) are common. It may therefore be possible to consolidate into a more user-friendly configuration.

The UN numbers and proper shipping names assigned to 8X2 are:

UN#	ICAO PSN	PG	CLASS	SUB	PASS PI	CARGO	PP
UN1739	BENZYL CHLOROFORMATE	I	8		FORBIDDEN	809	
UN1758	CHROMIUM OXYCHLORIDE	I	8		807	809	2,5,13
UN1760	CORROSIVE LIQUID, N.O.S.*	I	8		807	809	2,13
UN1786	HYDROFLUORIC ACID AND SULPHURIC ACID MIXTURE	I	8	6.1	FORBIDDEN	809	
UN1790	HYDROFLUORIC ACID, more than 60% strength	I	8	6.1	807	809	2,5
UN1796	NITRATING ACID MIXTURE with more than 50% nitric acid	I	8	5.1	FORBIDDEN	809	
UN1798	NITROHYDROCHLORIC ACID	I	8		FORBIDDEN	809	
UN1826	NITRATING ACID MIXTURE, SPENT with more than 50% nitric acid	I	8	5.1	FORBIDDEN	809	
UN1903	DISINFECTANTS, LIQUID, CORROSIVE, N.O.S.*	I	8		807	809	2,13
UN2031	NITRIC A CID, other than red fuming, with more than 70% nitric acid	I	8	5.1	FORBIDDEN	809	
UN2054	MORPHOLINE	I	8	3	807	809	2,13
UN2240	CHROMOSULPHURIC ACID	I	8		807	809	2,5,13
UN2444	VANADIUM TETRACHLORIDE	I	8		FORBIDDEN	809	
UN2692	BORON TRIBROMIDE	I	8		FORBIDDEN	809	
UN2699	TRIFLUOROACETIC ACID	I	8		807	809	2,5,13,21
UN2734	AMINES, LIQUID, CORROSIVE, FLAMMABLE, N.O.S.*	I	8	3	807	809	2,13
UN2735	AMINES, LIQUID, CORROSIVE, N.O.S.*	I	8		807	809	2,13
UN2801	DYE, LIQUID, CORROSIVE, N.O.S.*	I	8		807	809	2,13
UN2879	SELENIUM OXYCHLORIDE	I	8	6.1	807	809	2,5,13
UN2920	CORROSIVE LIQUID, FLAMMABLE, N.O.S.*	I	8	3	807	809	2,13
UN2922	CORROSIVE LIQUID, TOXIC, N.O.S.*	I	8	6.1	807	809	2,13
UN3093	CORROSIVE LIQUID, OXIDIZING, N.O.S.*	I	8	5.1	FORBIDDEN	809	
UN3094	CORROSIVE LIQUID, WATER-REACTIVE, N.O.S.*	I	8	4.3	FORBIDDEN	809	
UN3145	ALKYLPHENOLS, LIQUID, N.O.S. (including C2-C12 homologues)	I	8		807	809	2,13
UN3264	CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S.*	I	8		807	809	2,13
UN3265	CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S.*	I	8		807	809	2,13
UN3266	CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S.*	I	8		807	809	2,13
UN3267	CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S.*	I	8		807	809	2,13
UN3301	CORROSIVE LIQUID, SELF-HEATING, N.O.S.*	I	8	4.2	807	809	2,13

UN#	ICAO PSN	PG	CLASS	SUB	PASS PI	CARGO	PP
UN1719	CAUSTIC ALKA LI LIQUID, N.O.S.*	II	8		809	813	-
UN1724	ALLYLTRICHLOROSILANE, STABILIZED	II	8	3	FORBIDDEN	813	
UN1728	AMYLTRICHLOROSILANE	II	8		FORBIDDEN	813	
UN1740	HYDROGENDIFLUORIDES, SOLUTION, N.O.S.	II	8		809	813	-
UN1747	BUTYLTRICHLOROSILANE	II	8	3	FORBIDDEN	813	
UN1753	CHLOROPHENYLTRICHLOROSILANE	II	8		FORBIDDEN	813	
UN1762	CYCLOHEXENYLTRICHLOROSILANE	II	8		FORBIDDEN	813	
UN1763	CYCLOHEXYLTRICHLOROSILANE	II	8		FORBIDDEN	813	
UN1764	DICHLOROACETIC ACID	II	8		809	813	2,5,13
UN1765	DICHLOROACETYL CHLORIDE	II	8		809	813	2,5,13
UN1766	DICHLOROPHENYLTRICHLOROSILANE	II	8		FORBIDDEN	813	
UN1767	DIETHYLDICHLOROSILANE	II	8	3	FORBIDDEN	813	
UN1768	DIFLUOROPHOSPHORIC ACID, ANHYDROUS	II	8		809	813	2,5
UN1769	DIPHENYLDICHLOROSILANE	II	8		FORBIDDEN	813	
UN1771	DODECYLTRICHLOROSILANE	II	8		FORBIDDEN	813	
UN1774	FIRE EXTINGUISHER CHARGES, corrosive liquid	II	8		809	819	-
UN1775	FLUOBORIC ACID	II	8		809	813	2,5,21
UN1776	FLUOROPHOSPHORIC ACID, ANHYDROUS	II	8		809	813	2,5,21
UN1778	FLUOSILICIC ACID	II	8		809	813	2,5,21
UN1781	HEXADECYLTRICHLOROSILANE	II	8		FORBIDDEN	813	
UN1782	HEXAFLUOROPHOSPHORIC ACID	II	8		809	813	2,5,21
UN1784	HEXYLTRICHLOROSILANE	II	8		FORBIDDEN	813	
UN1787	HYDRIODIC ACID	II	8		809	813	2,13
UN1788	HYDROBROMIC ACID, not more than 49% strength	II	8		809	813	2,13
UN1789	HYDROCHLORIC ACID	II	8		809	813	2,13
UN1790	HYDROFLUORIC ACID, not mre than 60% strength	II	8	6.1	809	813	2,5
UN1791	HYPOCHLORITE SOLUTION	II	8		809	813	5
UN1796	NITRATING ACID MIXTURE with not more than 50% nitric acid	II	8		FORBIDDEN	813	
UN1799	NONYLTRICHLOROSILANE	II	8		FORBIDDEN	813	
UN1800	OCTADECYLTRICHLOROSILANE	II	8		FORBIDDEN	813	
UN1801	OCTYLTRICHLOROSILANE	II	8		FORBIDDEN	813	
UN1802	PERCHLORIC ACID, with nor more than 50% acid, by mass	II	8	5.1	FORBIDDEN	813	

UN1803	PHENOLSULPHONIC ACID, LIQUID	II	8		809	813	-

UN#	ICAO PSN	PG	CLASS	SUB	PASS PI	CARGO	PP
UN1804	PHENYLTRICHLOROSILANE	II	8		FORBIDDEN	813	
UN1808	PHOSPHORUS TRIBROMIDE	II	8		FORBIDDEN	813	
UN1810	PHOSPHORUS OXYCHLORIDE	II	8		FORBIDDEN	813	
UN1811	POTASSIUM HYDROGENDIFLUORIDE, solution	II	8	6.1	809	813	-
UN1814	POTASSIUM HYDROXIDE SOLUTION	II	8		809	813	-
UN1816	PROPYLTRICHLOROSILANE	II	8	3	FORBIDDEN	813	
UN1818	SILICON TETRACHLORIDE	II	8		809	813	2,13
UN1824	SODIUM HYDROXIDE SOLUTION	II	8		809	813	-
UN1826	NITRATING ACID MIXTURE, SPENT with not more than 50% nitric acid	II	8		FORBIDDEN	813	
UN1830	SULPHURIC ACID with more than 51% acid	II	8		809	813	5,13
UN1832	SULPHURIC ACID, SPENT	II	8		FORBIDDEN	813	
UN1837	THIOPHOSPHORYL CHLORIDE	II	8		FORBIDDEN	813	
UN1838	TITANIUM TETRACHLORIDE	II	8		FORBIDDEN	813	
UN1906	SLUDGE ACID	II	8		FORBIDDEN	813	
UN1908	CHLORITE SOLUTION	II	8		809	813	2,13
UN1940	THIOGLYCOLIC ACID	II	8		809	813	5
UN2031	NITRIC ACID, other than red fuming, with not more than 70% nitric acid	II	8		FORBIDDEN	813	
UN2031	NITRIC ACID, other than red fuming, with not more than 20% nitric acid	II	8		807	813	2,13
UN2258	1,2-PROPYLENEDIAMINE	II	8	3	809	813	2,13
UN2308	NITROSYLSULPHURIC ACID, LIQUID	II	8		809	813	2,5,13
UN2435	ETHYLPHENYLDICHLOROSILANE	II	8		FORBIDDEN	813	
UN2439	SODIUM HYDROGEN DIFLUORIDE, solution	II	8		809	813	-
UN2443	VANADIUM OXYTRICHLORIDE	II	8		FORBIDDEN	813	
UN2502	VALERYL CHLORIDE	II	8	3	809	813	2,5,13
UN2564	TRICHLOROACETIC ACID SOLUTION	II	8		809	813	2,5,13
UN2677	RUBIDIUM HYDROXIDE SOLUTION	II	8		809	813	-
UN2679	LITHIUM HYDROXIDE SOLUTION	II	8		809	813	-
UN2681	CAESIUM HYDROXIDE SOLUTION	II	8		809	813	-
UN2796	SULPHURIC ACID with not more than 51% acid	II	8		809	813	5,13
UN2797	BATTERY FLUID, ALKALI	II	8		809	813	-

UN#	ICAO PSN	PG	CLASS	SUB	PASS	PI CARGO	PP
UN2817	AMMONIUM HYDROGENDIFLUORIDE SOLUTION	II	8	6.1	809	813	-
UN2837	BISULPHATES, AQUEOUS SOLUTION	II	8		809	813	-
UN3093	CORROSIVE LIQUID, OXIDIZING, N.O.S.*	II	8	5.1	809	813	2,5,13
UN3094	CORROSIVE LIQUID, WATER-REACTIVE, N.O.S.*	II	8	4.3	809	813	2,5,13
UN3320	SODIUM BOROHYDRIDE AND SODIUM HYDROXIDE SOLUTION, with not more than 12% sodium borohydride and not more than 40% sodium hydroxide by mass	II	8		809	813	-
UN1719	CAUSTIC ALKALI LIQUID, N.O.S.*	III	8		819	821	-
UN1740	HYDROGENDIFLUORIDES, SOLUTION, N.O.S.	III	8		819	821	21
UN1787	HYDRIODIC ACID	III	8		819	821	13
UN1788	HYDROBROMIC ACID, not more than 49% strength	III	8		819	821	13
UN1789	HYDROCHLORIC ACID	III	8		819	821	13
UN1805	PHOSPHORIC ACID, LIQUID	III	8		819	821	5
UN1814	POTASSIUM HYDROXIDE SOLUTION	III	8		819	821	-
UN1824	SODIUM HYDROXIDE SOLUTION	III	8		819	821	-
UN1908	CHLORITE SOLUTION	III	8		819	821	13
UN2564	TRICHLOROACETIC ACID SOLUTION	III	8		819	821	5,13
UN2672	AMMONIA SOLUTION, relative density between 0.880 and 0.957at 15 degrees C in water, with more than 10% but not more than 35% ammonia	III	8		819	813	-
UN2677	RUBIDIUM HYDROXIDE SOLUTION	III	8		819	821	-
UN2679	LITHIUM HYDROXIDE SOLUTION	III	8		819	821	-
UN2681	CAESIUM HYDROXIDE SOLUTION	III	8		819	821	-
UN2817	AMMONIUM HYDROGENDIFLUORIDE SOLUTION	III	8	6.1	819	821	21
UN2837	BISULPHATES, AQUEOUS SOLUTION	III	8		819	821	-
UN3320	SODIUM BOROHYDRIDE AND SODIUM HYDROXIDE SOLUTION, with not more than 12% sodium borohydride and not more than 40% sodium hydroxide by mass	III	8		819	821	-

8X3 PACKING INSTRUCTION 8X3 8X3

The general packing requirements of Part 4, Chapter 1 must be met.

COMBINATION PACKAGINGS:

INNER:

The following inner packagings are authorized for the indicated mass of solid for passenger or cargo aircraft.

	Passenger Aircraft		***Cargo Aircraft***	
	PG II	*PG III* ***(AR 1)***	*PG II*	*PG III* ***(AR 1)***
Glass or earthen ware (IP.1)	1 kg	2.5 kg	2.5 kg	5 kg
Plastic (IP.2)	2.5 kg	5 kg	5 kg	10 kg
Metal (IP.3) (not aluminium)	2.5 kg	5 kg	5 kg	10 kg

OUTER:

Boxes	***Drums***	***Jerricans***
aluminium (4B) fibreboard (4G) plywood (4D) reconstituted wood (4F) expanded plastic (4H1) solid plastic (4H2) steel (4A) wooden (4C1, 4C2)	aluminium (1B2) fibre (1G) plastic (1H2) plywood (1D) steel (1A2) other metal (1N2)	aluminium (3B2) plastic (3H2) steel (3A2)

SINGLE PACKAGINGS:

Passenger Aircraft		***Cargo Aircraft***	
PG II	PG III	PG II	PG III ***(AR 1)***
		Drums: 1A1, 1A2, 1H1, 1H2, 1N1, 1N2	**Drums:** 1A1, 1A2, 1H1, 1H2, 1N1, 1N2
NOT ALLOWED		**Jerricans:** 3A1, 3A2, 3H1, 3H2	**Jerricans:** 3A1, 3A2, 3H1, 3H2
		Composite (plastic): 6HA1, 6HB1, 6HG1, 6HH1, 6HD1, 6HA2, 6HB2, 6HC, 6HD2, 6HG2, 6HH2	**Composite (plastic):** 6HA1, 6HB1, 6HG1, 6HH1, 6HD1, 6HA2, 6HB2, 6HC, 6HD2, 6HG2, 6HH2

Additional Requirements

AR1 Packagings for Packing Group III substances must meet Packing Group II performance requirements

Particular Packing Requirements

PPR8X4 For UN 1727, 1740, 1811 and 2439, glass or earthenware inner packagings are permitted if the item is free from hydrofluoric acid

PPR8X7 For UN 1939, metal inner and single packagings are not permitted

Notes:
This packing instruction combines the majority of substances in the existing packing instructions 815, 817, 825 and 826. Inner quantity limits have not been changed.

The following PPR is judged to be a compatibility issue and has been left out of the packing instruction for the timebeing.

PPR8XX For UN 1806, 1807, 1839, 1938, 2509, 2691 and 2869, steel packagings must be corrosion-resistant or with protection against corrosion

The UN numbers and proper shipping names assigned to 8X3 are:

UN#	ICAO PSN	PG	CLASS	SUB	PASS	PI	CARGO	PP
UN1829	SULPHUR TRIOXIDE, STABLIZED	I	8		FORBIDDEN		817	
UN1727	AMMONIUM HYDROGENDIFLUORIDE, SOLID	II	8		815		817	21
UN1740	HYDROGENDIFLUORIDES, SOLID, N.O.S.	II	8		815		817	21
UN1792	IODINE MONOCHLORIDE	II	8		FORBIDDEN		817	
UN1806	PHOSPHORUS PENTACHLORIDE	II	8		FORBIDDEN		817	
UN1807	PHOSPHORUS PENTOXIDE	II	8		815		817	5
UN1811	POTASSIUM HYDROGENDIFLUORIDE, solid	II	8	6.1	815		817	21
UN1839	TRICHLOROACETIC ACID	II	8		815		817	5
UN1938	BROMOACETIC ACID	II	8		815		817	5
UN1939	PHOSPHORUS OXYBROMIDE	II	8		FORBIDDEN		817	
UN2439	SODIUM HYDROGEN DIFLUORIDE, solid	II	8		815		817	21
UN2509	POTASSIUM HYDROGEN SULPHATE	II	8		815		817	5
UN2691	PHOSPHORUS PENTABROMIDE	II	8		FORBIDDEN		817	
UN2869	TITANIUM TRICHLORIDE MIXTURE	II	8		815		817	5
UN1740	HYDROGENDIFLUORIDES, SOLID, N.O.S.	III	8		825		826	
UN2869	TITANIUM TRICHLORIDE MIXTURE	III	8		825		826	

8X4 PACKING INSTRUCTION 8X4 8X4

The general packing requirements of Part 4, Chapter 1 must be met.

COMBINATION PACKAGINGS:

INNER:

The following inner packagings are authorized for the indicated mass of solid for passenger or cargo aircraft. When a packaging is not permitted the word "prohibited" is indicated.

	Passenger Aircraft			***Cargo Aircraft***		
	PG I	*PG II*	*PG III* ***(AR 1)***	*PG I*	*PG II*	*PG III* ***(AR 1)***
Glass or earthen ware (IP.1)	0.5 kg	1 kg	2.5 kg	1 kg	2.5 kg	5 kg
Plastic (IP.2)	0.5 kg	2.5 kg	2.5 kg	2.5 kg	5 kg	5 kg
Metal (IP.3, IP.3A)	0.5 kg	2.5 kg	5 kg	2.5 kg	5 kg	10 kg
Plastic bag (IP.5)	Prohibited	1 kg	2.5 kg	Prohibited	2.5 kg	5 kg

OUTER:

Boxes	***Drums***	***Jerricans***
aluminium (4B) fibreboard (4G) plywood (4D) reconstituted wood (4F) expanded plastic (4H1) solid plastic (4H2) steel (4A) wooden (4C1, 4C2)	aluminium (1B2) fibre (1G) plastic (1H2) plywood (1D) steel (1A2) other metal (1N2)	aluminium (3B2) plastic (3H2) steel (3A2)

SINGLE PACKAGINGS:

Passenger Aircraft			***Cargo Aircraft***		
PG I	PG II	PG III	PG I	PG II	PG III ***(AR 1)***
NOT ALLOWED			**Drums:** 1A1, 1A2, 1H1, 1H2	**Drums:** 1A1, 1A2, 1B1, 1B2, 1G(with inner plastic liner), 1H1, 1H2, 1D (with inner plastic liner), 1N1, 1N2	**Drums:** 1A1, 1A2, 1B1, 1B2, 1G(with inner plastic liner), 1H1, 1H2, 1D (with inner plastic liner), 1N1, 1N2
			Jerricans: 3A1, 3A2, 3H1, 3H2	**Jerricans:** 3A1, 3A2, 3H1, 3H2	**Jerricans:** 3A1, 3A2, 3H1, 3H2
			Composite (plastic): 6HA1, 6HB1, 6HG1, 6HH1, 6HD1, 6HA2, 6HB2, 6HC, 6HD2, 6HG2, 6HH2	**Composite (plastic):** 6HA1, 6HB1, 6HG1, 6HH1, 6HD1, 6HA2, 6HB2, 6HC, 6HD2, 6HG2, 6HH2	**Composite (plastic):** 6HA1, 6HB1, 6HG1, 6HH1, 6HD1, 6HA2, 6HB2, 6HC, 6HD2, 6HG2, 6HH2

Additional Requirements

AR1 Packagings for Packing Group III substances must meet Packing Group II performance requirements

Particular Packing Requirements

PPR8X8 For UN 2949, plastic bags (IP.5) are not permitted as inner packagings

Notes:

This packing instruction combines the majority of substances in the existing packing instructions 810, 811, 814, 816, 822, 823 and UN2949.

Inner quantity limits have not been changed.

The UN numbers and proper shipping names assigned to 8X4 are:

UN#	ICAO PSN	PG	CLASS	SUB	PASS PI	CARGO PP
UN1759	CORROSIVE SOLID, N.O.S.*	I	8		810	811
UN1905	SELENIC ACID	I	8		FORBIDDEN	811
UN2430	ALKYLPHENOLS, SOLID, N.O.S. (including C2-C12 homologues)	I	8		810	811
UN2921	CORROSIVE SOLID, FLAMMABLE, N.O.S.*	I	8	4.1	810	811
UN2923	CORROSIVE SOLID, TOXIC, N.O.S.*	I	8	6.1	810	811
UN3084	CORROSIVE SOLID, OXIDIZING, N.O.S.*	I	8	5.1	810	811
UN3095	CORROSIVE SOLID, SELF-HEATING, N.O.S.*	I	8	4.2	810	811
UN3096	CORROSIVE SOLID, WATER-REACTIVE, N.O.S.*	I	8	4.3	810	811
UN3147	DYE, SOLID, CORROSIVE, N.O.S.*	I	8		810	811
UN3259	AMINES, SOLID, CORROSIVE, N.O.S.*	I	8		810	811
UN3260	CORROSIVE SOLID, ACIDIC, INORGANIC, N.O.S.*	I	8		810	811
UN3261	CORROSIVE SOLID, ACIDIC, ORGANIC, N.O.S.*	I	8		810	811
UN3262	CORROSIVE SOLID, BASIC, INORGANIC, N.O.S.*	I	8		810	811
UN3263	CORROSIVE SOLID, BASIC, ORGANIC, N.O.S.*	I	8		810	811
UN1725	ALUMINIUM BROMIDE, ANHYDROUS	II	8		814	816
UN1726	ALUMINIUM CHLORIDE, ANHYDROUS	II	8		814	816
UN1733	ANTIMONY TRICHLORIDE, SOLID	II	8		814	816
UN1756	CHROMIC FLUORIDE, SOLID	II	8		814	816
UN1770	DIPHENYLMETHYL BROMIDE	II	8		814	816
UN1794	LEAD SULPHATE	II	8		814	816
UN1813	POTASSIUM HYDROXIDE, SOLID	II	8		814	816
UN1823	SODIUM HYDROXIDE, SOLID	II	8		814	816
UN1825	SODIUM MONOXIDE	II	8		814	816
UN1847	POTASSIUM SULPHIDE, HYDRATED	II	8		814	816
UN1849	SODIUM SULPHIDE, HYDRATED	II	8		814	816
UN2033	POTASSIUM MONOXIDE	II	8		814	816
UN2308	NITROSULPHURIC ACID, SOLID	II	8		814	816
UN2506	AMMONIUM HYDROGEN SULPHATE	II	8		814	816
UN2583	ALKY SULPHONIC ACIDS, SOLID with more than 5% free sulphuric acid	II	8		814	816

UN#	ICAO PSN	PG	CLASS	SUB	PASS PI	CARGO	PP
UN2670	CYANURIC CHLORIDE	II	8		814	816	
UN2678	RUBIDIUM HYDROXIDE	II	8		814	816	
UN2680	LITHIUM HYDROXIDE MONOHYDRATE	II	8		814	816	
UN2680	LITHIUM HYDROXIDE, SOLID	II	8		814	816	
UN2682	CAESIUM HYDROXIDE	II	8		814	816	
UN2751	DIETHYLTHIOPHOSPHORYL CHLORIDE	II	8		814	816	
UN2851	BORON TRIFLUORIDE DIHYDRATE	II	8		814	816	
UN2921	CORROSIVE SOLID, FLAMMABLE, N.O.S.*	II	8	4.1	814	816	
UN2949	SODIUM HYDROSULPHIDE with not less than 25% water of crystallization	II	8		815	817	5
UN3084	CORROSIVE SOLID, OXIDIZING, N.O.S.*	II	8	5.1	814	816	
UN3095	CORROSIVE SOLID, SELF-HEATING, N.O.S.*	II	8	4.2	814	816	
UN3096	CORROSIVE SOLID, WATER-REACTIVE, N.O.S.*	II	8	4.3	814	816	
UN3244	SOLIDS CONTAINING CORROSIVE LIQUID, N.O.S.*	II	8		814	816	
UN1759	CORROSIVE SOLID, N.O.S.*	III	8		822	823	
UN1759	CORROSIVE SOLID, N.O.S.*	III	8		822	823	
UN1773	FERRIC CHLORIDE, ANHYDROUS	III	8		822	823	
UN1793	ISOPROPYL ACID PHOSPHATE	III	8		822	823	
UN1907	SODA LIME	III	8		822	823	
UN1910	CALCIUM OXIDE	III	8		822	823	
UN2214	PHTHALIC ANHYDRIDE	III	8		822	823	
UN2215	MALEIC ANHYDRIDE	III	8		822	823	
UN2280	HEXAMETHYLENEDIAMINE, SOLID	III	8		822	823	
UN2331	ZINC CHLORIDE, ANHYDROUS	III	8		822	823	
UN2430	ALKYLPHENOLS, SOLID, N.O.S. (including C2-C12 homologues)	III	8		822	823	
UN2430	ALKYLPHENOLS, SOLID, N.O.S. (including C2-C12 homologues)	III	8		822	823	
UN2440	STANNIC CHLORIDE PENTAHYDRATE	III	8		822	823	
UN2475	VANADIUM TRICHLORIDE	III	8		822	823	
UN2503	ZIRCONIUM TETRACHLORIDE	III	8		822	823	
UN2507	CHLOROPLATINIC ACID, SOLID	III	8		822	823	
UN2508	MOLYBDENUM PENTACHLORIDE	III	8		822	823	

UN#	ICAO PSN	PG	CLASS	SUB	PASS PI	CARGO PP
UN2511	2-CHLOROPROPIONIC-ACID, SOLID	III	8		822	823
UN2578	PHOSPHORUS TRIOXIDE	III	8		822	823
UN2579	PIPERAZINE	III	8		822	823
UN2585	ALKYLSULPHONIC ACIDS, SOLID with not more than 5% free sulphuric acid	III	8		822	823
UN2698	TETRAHYDROPHTHALIC ANHYDRIDES	III	8		822	823
UN2802	COPPER CHLORIDE	III	8		822	823
UN2812	SODIUM ALUMINATE, SOLID	III	8		822	823
UN2823	CROTONIC ACID, SOLID	III	8		822	823
UN2834	PHOSPHOROUS ACID, SOLID	III	8		822	823
UN2865	HYDROXYLAMINE SULPHATE	III	8		822	823
UN2905	CHLOROPHENOLATES, SOLID	III	8		822	823
UN2923	CORROSIVE SOLID, TOXIC, N.O.S.*	III	8	6.1	822	823
UN2923	CORROSIVE SOLID, TOXIC, N.O.S.*	III	8	6.1	822	823
UN2967	SULPHAMIC ACID	III	8		822	823
UN3147	DYE INTERMEDIATE, SOLID, CORROSIVE, N.O.S.*	III	8		822	823
UN3147	DYE, SOLID, CORROSIVE, N.O.S.*	III	8		822	823
UN3253	DISODIUM TRIOXOSILICATE	III	8		822	823
UN3259	AMINES, SOLID, CORROSIVE, N.O.S.*	III	8		822	823
UN3259	POLYAMINES, SOLID, CORROSIVE, N.O.S.*	III	8		822	823
UN3260	CORROSIVE SOLID, ACIDIC, INORGANIC, N.O.S.*	III	8		822	823
UN3260	CORROSIVE SOLID, ACIDIC, INORGANIC, N.O.S.*	III	8		822	823
UN3261	CORROSIVE SOLID, ACIDIC, ORGANIC, N.O.S.*	III	8		822	823
UN3261	CORROSIVE SOLID, ACIDIC, ORGANIC, N.O.S.*	III	8		822	823
UN3262	CORROSIVE SOLID, BASIC, INORGANIC, N.O.S.*	III	8		822	823
UN3262	CORROSIVE SOLID, BASIC, INORGANIC, N.O.S.*	III	8		822	823
UN3263	CORROSIVE SOLID, BASIC, ORGANIC, N.O.S.*	III	8		822	823
UN3263	CORROSIVE SOLID, BASIC, ORGANIC, N.O.S.*	III	8		822	823

Y8X1 PACKING INSTRUCTION Y8X1 Y8X1

The requirements of Part 3, Chapter 4 must be met.

Single packagings are not permitted

COMBINATION PACKAGINGS:

INNER:

The following inner packagings are authorized for the indicated quantities of liquid for passenger or cargo aircraft. When a packaging is not permitted the word "prohibited" is indicated.

	PG I	*PG II*	*PG III*
Glass or earthen ware (IP.1)	Prohibited	0.1 L	0.5 L
Plastic (IP.2)	Prohibited	0.1 L	0.5 L
Metal (IP.3, IP.3A)	Prohibited	0.1 L	0.5 L

AR 1

OUTER:

Boxes	***Drums***	***Jerricans***
aluminium	aluminium	aluminium
fibreboard	fibre	plastic
plywood	plastic	steel
reconstituted wood	plywood	
expanded plastic	steel	
solid plastic	other metal	
steel		
wooden		

Additional Requirements

AR1 Glass or earthenware inner packagings must be packed with absorbent material in tightly closed metal or rigid plastic receptacles before packing in outer packagings

Particular Packing Requirements

PPR8X2 For UN 1715, 2789 and 2790 plastic inner packagings must be packed in tightly closed metal or rigid plastic receptacles before packing in outer packaging

Notes:

This packing instruction combines the substances in the existing packing instructions Y808, Y818, and the additional substances UN1715, 2789 and 2790.
Inner quantity limits have not been changed.

The following PPRs are judged to be compatibility issues, and have been removed from the packing instruction for the timebeing.

PPR8XX For UN 1715, 2789 and 2790, steel packagings must be corrosion-resistant or with protection against corrosion
PPR8XY For UN 1715, 2789, and 2790, when aluminium or aluminium alloys are used they must be resistant to corrosion

The UN numbers and proper shipping names assigned to Y8X1 are:

UN#	ICAO PSN	PG	CLASS	SUB	LQ PI
UN1604	ETHYLENEDIAMINE	II	8	3	Y808
UN1715	ACETIC ANHYDRIDE	II	8	3	Y809
UN1716	ACETYL BROMIDE	II	8		Y808
UN1729	ANISOYL CHLORIDE	II	8		Y808
UN1730	ANTIMONY PENTACHLORIDE, LIQUID	II	8		Y808
UN1731	ANTIMONY PENTACHLORIDE SOLUTION	II	8		Y808
UN1733	ANTIMONY TRICHLORIDE, LIQUID	II	8		Y808
UN1736	BENZOYL CHLORIDE	II	8		Y808
UN1742	BORON TRIFLUORIDE ACETIC ACID COMPLEX	II	8		Y808
UN1743	BORON TRIFLUORIDE PROPIONIC ACID COMPLEX	II	8		Y808
UN1755	CHROMIC ACID SOLUTION	II	8		Y808
UN1757	CHROMIC FLUORIDE SOLUTION	II	8		Y808
UN1761	CUPRIETHYLENEDIAMINE SOLUTION	II	8	6.1	Y808
UN1779	FORMIC ACID	II	8		Y808
UN1780	FUMARYL CHLORIDE	II	8		Y808
UN1783	HEXAMETHYLENEDIAMINE SOLUTION	II	8		Y808
UN1817	PYROSULPHURYL CHLORIDE	II	8		Y808
UN1819	SODIUM ALUMINATE SOLUTION	II	8		Y808
UN1827	STANNIC CHLORIDE, ANHYDROUS	II	8		Y808
UN1833	SULPHUROUS ACID	II	8		Y808
UN1835	TETRAMETHYLAMMONIUM HYDROXIDE	II	8		Y808
UN1898	ACETYL IODIDE	II	8		Y808
UN2051	2-DIMETHYLAMININOETHANOL	II	8	3	Y808
UN2079	DIETHYLENETRIAMINE	II	8		Y808
UN2218	ACRYLIC ACID, STABILIZED	II	8	3	Y808
UN2226	BENZOTRICHLORIDE	II	8		Y808
UN2248	DI-n-BUTYLAMINE	II	8	3	Y808
UN2259	TRIETHYLENETETRAMINE	II	8		Y808
UN2262	DIMETHYLCARBAMOYL CHLORIDE	II	8		Y808
UN2264	DIMETHYLCYCLOHEXYLAMINE	II	8	3	Y808
UN2305	NITROBENZENESULPHONIC ACID	II	8		Y808
UN2357	CYCLOHEXYLAMINE	II	8	3	Y808
UN2434	DIBENZYLDICHLOROSILANE	II	8		Y808
UN2437	METHYLPHENYLDICHLOROSILANE	II	8		Y808
UN2513	BROMOACETYL BROMIDE	II	8		Y808
UN2531	METHACRYLIC ACID, STABILIZED	II	8		Y808

UN#	ICAO PSN	PG	CLASS	SUB	LQ	PI
UN2571	ALKYLSULPHURIC ACIDS*	II	8			Y808
UN2577	PHENYLACETYL CHLORIDE	II	8			Y808
UN2584	ALKYLSULPHONIC ACIDS, LIQUID with more than 5% free sulphuric acid	II	8			Y808
UN2619	BENZYLDIMETHYLAMINE	II	8	3		Y808
UN2683	AMMONIUM SULPHIDE SOLUTION	II	8	3, 6.1		Y808
UN2685	N,N-DIETHYLETHYLENEDIAMINE	II	8	3		Y808
UN2686	2-DIETHYLAMINOETHANOL	II	8	3		Y808
UN2705	1-PENTOL	II	8			Y808
UN2734	AMINES, LIQUID, CORROSIVE, FLAMMABLE, N.O.S.*	II	8	3		Y808
UN2789	ACETIC ACID, GLACIAL	II	8	3		Y809
UN2790	ACETIC ACID SOLUTION, not less than 50% but not more than 80% acid by mass	II	8			Y809
UN2818	AMMONIUM POLYSULPHIDE SOLUTION	II	8	6.1		Y808
UN2920	CORROSIVE LIQUID, FLAMMABLE, N.O.S.*	II	8	3		Y808
UN2986	CHLOROSILANES, CORROSIVE, FLAMMABLE, N.O.S.	II	8	3		Y808
UN2987	CHLOROSILANES, CORROSIVE, N.O.S.	II	8			Y808
UN3066	PAINT (including paint, lacquer, enamel, stain, shellac, varnish, polish, liquid filler and liquid lacquer base)	II	8			Y808
UN1718	BUTYL ACID PHOSPHATE	III	8			Y818
UN1731	ANTIMONY PENTACHLORIDE SOLUTION	III	8			Y818
UN1755	CHROMIC ACID SOLUTION	III	8			Y818
UN1757	CHROMIC FLUORIDE SOLUTION	III	8			Y818
UN1760	CORROSIVE LIQUID, N.O.S.*	III	8			Y818
UN1760	CORROSIVE LIQUID, N.O.S.*	III	8			Y818
UN1761	CUPRIETHYLENEDIAMINE SOLUTION	III	8	6.1		Y818
UN1783	HEXAMETHYLENEDIAMINE SOLUTION	III	8			Y818
UN1819	SODIUM ALUMINATE SOLUTION	III	8			Y818
UN1840	ZINC CHLORIDE SOLUTION	III	8			Y818
UN1848	PROPIONIC ACID	III	8			Y818
UN1902	DIISOOCTYL ACID PHOSPHATE	III	8			Y818
UN1903	DISINFECTANTS, LIQUID, CORROSIVE, N.O.S.*	III	8			Y818
UN1903	DISINFECTANTS, LIQUID, CORROSIVE, N.O.S.*	III	8			Y818
UN2209	FORMALDEHYDE SOLUTION with not less than 25% formaldehyde	III	8			Y818
UN2225	BENZENESULPHONYL CHLORIDE	III	8			Y818
UN2269	3,3'-IMINODIPROPYLAMINE	III	8			Y818
UN2289	ISOPHORONEDIAMINE	III	8			Y818
UN2320	TETRAETHYLENEPENTAMINE	III	8			Y818
UN2326	TRIMETHYLCYCLOHEXYLAMINE	III	8			Y818

UN#	ICAO PSN	PG	CLASS	SUB	LQ	PI
UN2327	TRIMETHYLHEXAMETHYLENEDIAMINES	III	8			Y818
UN2491	ETHANOLAMINE	III	8			Y818
UN2496	PROPIONIC ANHYDRIDE	III	8			Y818
UN2511	2-CHLOROPROPIONIC ACID, SOLUTION	III	8			Y818
UN2565	DICYCLOHEXYLAMINE	III	8			Y818
UN2580	ALUMINIUM BROMIDE SOLUTION	III	8			Y818
UN2581	ALUMINIUM CHLORIDE SOLUTION	III	8			Y818
UN2582	FERRIC CHLORIDE SOLUTION	III	8			Y818
UN2586	ALKY SULPHONIC ACIDS, LIQUID with not more than 5% free sulphuric acid	III	8			Y818
UN2693	BISULPHITES, AQUEOUS SOLUTION, N.O.S.	III	8			Y818
UN2735	AMINES, LIQUID, CORROSIVE, N.O.S.*	III	8			Y818
UN2735	POLYAMINES, LIQUID, CORROSIVE, N.O.S.*	III	8			Y818
UN2739	BUTYRIC ANHYDRIDE	III	8			Y818
UN2790	ACETIC ACID SOLUTION, more than 10% but less than 50% acid, by mass	III	8			Y818
UN2801	DYE, LIQUID, CORROSIVE, N.O.S.*	III	8			Y818
UN2801	DYE INTERMEDIATE, LIQUID, CORROSIVE, N.O.S.*	III	8			Y818
UN2815	N-AMINOETHYLPIPERAZINE	III	8			Y818
UN2818	AMMONIUM POLYSULPHIDE SOLUTION	III	8	6.1		Y818
UN2819	AMYL ACID PHOSPHATE	III	8			Y818
UN2820	BUTYRIC ACID	III	8			Y818
UN2823	CROTONIC ACID, LIQUID	III	8			Y818
UN2829	CAPROIC ACID	III	8			Y818
UN2904	CHLOROPHENOLATES, LIQUID	III	8			Y818
UN2922	CORROSIVE LIQUID, TOXIC, N.O.S.*	III	8	6.1		Y818
UN2922	CORROSIVE LIQUID, TOXIC, N.O.S.*	III	8	6.1		Y818
UN3055	2-(2-AMINOETHOXY) ETHANOL	III	8			Y818
UN3066		III	8			Y818
UN3145	ALKYLPHENOLS, LIQUID, N.O.S. (including C2-C12 homologues)	III	8			Y818
UN3145	ALKYLPHENOLS, LIQUID, N.O.S. (including C2-C12 homologues)	III	8			Y818
UN3264	CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S.*	III	8			Y818
UN3264	CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S.*	III	8			Y818
UN3265	CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S.*	III	8			Y818
UN3265	CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S.*	III	8			Y818
UN3266	CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S.*	III	8			Y818
UN3266	CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S.*	III	8			Y818
UN3267	CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S.*	III	8			Y818
UN3267	CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S.*	III	8			Y818

Y8X2 PACKING INSTRUCTION Y8X2 Y8X2

The requirements of Part 3, Chapter 4 must be met.

Single packagings are not permitted

COMBINATION PACKAGINGS:

INNER:

The following inner packagings are authorized for the indicated quantities of liquid for passenger or cargo aircraft.

	PG I	*PG II*	*PG III*	
Glass or earthen ware (IP.1)	Prohibited	0.1 L	0.5 L	**AR 1**
Plastic (IP.2)	Prohibited	0.1 L	0.5 L	
Metal (IP.3) (not aluminium)	Prohibited	0.1 L	0.5 L	

OUTER:

Boxes	***Drums***	***Jerricans***
aluminium	aluminium	aluminium
fibreboard	fibre	plastic
plywood	plastic	steel
reconstituted wood	plywood	
expanded plastic	steel	
solid plastic	other metal	
steel		
wooden		

Additional Requirements

AR1 Where glass or earthenware inner packagings are permitted, they must be packed with absorbent material in tightly closed metal or rigid plastic receptacles before packing in outer packagings

Particular Packing Requirements

PPR8X2 For UN 1764, 1765, 1768, 1775, 1776, 1778, 1782, 1787, 1788, 1789, 1790, 1818, 1908, 2031, 2258, 2308, 2502, and 3093 plastic inner packagings must be packed in tightly closed metal or rigid plastic receptacles before packing in outer packaging 2564

PPR8X4 For UN 1775, 1776, 1778, and 1782, glass or earthenware inner packagings are permitted only if the item is free from hydrofluoric acid

PPR8X5 For UN 1740, 1768, 1790, 1811, 2439 and2817, glass or earthenware inner packagings are not permitted

PPR8X7 For UN 1774, 1787, 1788, 1789, 1803, 1818 and 2031, metal inner packagings are not permitted

Notes:

This packing instruction combines the majority of substances in the existing packing instructions Y807, Y809 and Y819.
Inner quantity limits have not been changed.

The following PPRs are judged to be compatibility issues, and have been removed from the packing instruction for the timebeing.

PPR8XX For various steel packagings must be corrosion-resistant or with protection against corrosion
PPR8XY For various when aluminium or aluminium alloys are used they must be resistant to corrosion

The UN numbers and proper shipping names assigned to Y8X2 are:

UN#	ICAO PSN	PG	CLASS	SUB	LQ	PI
UN1719	CAUSTIC ALKALI LIQUID, N.O.S.*	II	8		Y809	
UN1740	HYDROGENDIFLUORIDES, SOLUTION, N.O.S.	II	8		Y809	
UN1764	DICHLOROACETIC ACID	II	8		Y809	
UN1765	DICHLOROACETYL CHLORIDE	II	8		Y809	
UN1768	DIFLUOROPHOSPHORIC ACID, ANHYDROUS	II	8		Y809	
UN1774	FIRE EXTINGUISHER CHARGES, corrosive liquid	II	8		Y809	
UN1775	FLUOBORIC ACID	II	8		Y809	
UN1776	FLUOROPHOSPHORIC ACID, ANHYDROUS	II	8		Y809	
UN1778	FLUOSILICIC ACID	II	8		Y809	
UN1782	HEXAFLUOROPHOSPHORIC ACID	II	8		Y809	
UN1787	HYDRIODIC ACID	II	8		Y809	
UN1788	HYDROBROMIC ACID, not more than 49% strength	II	8		Y809	
UN1789	HYDROCHLORIC ACID	II	8		Y809	
UN1790	HYDROFLUORIC ACID, not mre than 60% strength	II	8	6.1	Y809	
UN1791	HYPOCHLORITE SOLUTION	II	8		Y809	
UN1803	PHENOLSULPHONIC ACID, LIQUID	II	8		Y809	
UN1811	POTASSIUM HYDROGENDIFLUORIDE, solution	II	8	6.1	Y809	
UN1814	POTASSIUM HYDROXIDE SOLUTION	II	8		Y809	
UN1818	SILICON TETRACHLORIDE	II	8		Y809	
UN1824	SODIUM HYDROXIDE SOLUTION	II	8		Y809	
UN1908	CHLORITE SOLUTION	II	8		Y809	
UN1940	THIOGLYCOLIC ACID	II	8		Y809	
UN2031	NITRIC ACID, other than red fuming, with not more than 20% nitric acid	II	8		Y807	
UN2308	NITROSYLSULPHURIC ACID, LIQUID	II	8		Y809	
UN2439	SODIUM HYDROGEN DIFLUORIDE, solution	II	8		Y809	
UN2502	VALERYL CHLORIDE	II	8	3	Y809	
UN2564	TRICHLOROACETIC ACID SOLUTION	II	8		Y809	
UN2677	RUBIDIUM HYDROXIDE SOLUTION	II	8		Y809	
UN2679	LITHIUM HYDROXIDE SOLUTION	II	8		Y809	
UN2681	CAESIUM HYDROXIDE SOLUTION	II	8		Y809	
UN2796	SULPHURIC ACID with not more than 51% acid	II	8		Y809	
UN2797	BATTERY FLUID, ALKALI	II	8		Y809	
UN2817	AMMONIUM HYDROGENDIFLUORIDE SOLUTION	II	8	6.1	Y809	
UN2837	BISULPHATES, AQUEOUS SOLUTION	II	8		Y809	
UN3093	CORROSIVE LIQUID, OXIDIZING, N.O.S.*	II	8	5.1	Y809	
UN3320	SODIUM BOROHYDRIDE AND SODIUM HYDROXIDE SOLUTION,	II	8		Y809	

UN#	ICAO PSN	PG	CLASS	SUB	LQ	PI
	with n ot more than 12% sodium borohydride and not more than 40% sodium hydroxide by mass					
UN1719	CAUSTIC ALKALI LIQUID, N.O.S.*	III	8		Y819	
UN1740	HYDROGENDIFLUORIDES, SOLUTION, N.O.S.	III	8		Y819	
UN1787	HYDRIODIC ACID	III	8		Y819	
UN1788	HYDROBROMIC ACID, not more than 49% strength	III	8		Y819	
UN1789	HYDROCHLORIC ACID	III	8		Y819	
UN1805	PHOSPHORIC ACID, LIQUID	III	8		Y819	
UN1814	POTASSIUM HYDROXIDE SOLUTION	III	8		Y819	
UN1824	SODIUM HYDROXIDE SOLUTION	III	8		Y819	
UN1908	CHLORITE SOLUTION	III	8		Y819	
UN2564	TRICHLOROACETIC ACID SOLUTION	III	8		Y819	
UN2672	AMMONIA SOLUTION, relative density between 0.880 and 0.957at 15 degrees C in water, with more than 10% but not more than 35% ammonia	III	8		Y819	
UN2677	RUBIDIUM HYDROXIDE SOLUTION	III	8		Y819	
UN2679	LITHIUM HYDROXIDE SOLUTION	III	8		Y819	
UN2681	CAESIUM HYDROXIDE SOLUTION	III	8		Y819	
UN2817	AMMONIUM HYDROGENDIFLUORIDE SOLUTION	III	8	6.1	Y819	
UN2837	BISULPHATES, AQUEOUS SOLUTION	III	8		Y819	
UN3320	SODIUM BOROHYDRIDE AND SODIUM HYDROXIDE SOLUTION, with not more than 12% sodium borohydride and not more than 40% sodium hydroxide by mass	III	8		Y819	

Y8X3 PACKING INSTRUCTION Y8X3 Y8X3

The requirements of Part 3, Chapter 4 must be met.

Single packagings are not permitted

COMBINATION PACKAGINGS:

INNER:

The following inner packagings are authorized for the indicated mass of solid for passenger or cargo aircraft. When a packaging is not permitted the word "prohibited" is indicated.

	PG I	*PG II*	*PG III*
Glass or earthen ware (IP.1)	Prohibited	0.5 kg	1 kg
Plastic (IP.2)	Prohibited	0.5 kg	1 kg
Metal (IP.3) (not aluminium)	Prohibited	0.5 kg	1 kg

OUTER:

Boxes	***Drums***	***Jerricans***
aluminium	aluminium	aluminium
fibreboard	fibre	plastic
plywood	plastic	steel
reconstituted wood	plywood	
expanded plastic	steel	
solid plastic	other metal	
steel		
wooden		

Particular Packing Requirements

PPR8X4 For UN 1727, 1740, 1811 and 2439, glass or earthenware inner packagings are permitted only if the item is free from hydrofluoric acid

Notes:

This packing instruction combines the majority of substances in the existing packing instructions Y815 and Y825. Inner quantity limits have not been changed.

The following PPR is judged to be a compatibility issue, and has been removed from the packing instruction for the timebeing.

PPR8XX For UN 1807, 1839, 1938, 2509 and 2869, steel packagings must be corrosion-resistant or with protection against corrosion

The UN numbers and proper shipping names assigned to Y8X3 are:

UN#	ICAO PSN	PG	CLASS	SUB	LQ	PI
UN1727	AMMONIUM HYDROGENDIFLUORIDE, SOLID	II	8			Y815
UN1740	HYDROGENDIFLUORIDES, SOLID, N.O.S.	II	8			Y815
UN1807	PHOSPHORUS PENTOXIDE	II	8			Y815
UN1811	POTASSIUM HYDROGENDIFLUORIDE, solid	II	8	6.1		Y815
UN1839	TRICHLOROACETIC ACID	II	8			Y815
UN1938	BROMOACETIC ACID	II	8			Y815
UN2439	SODIUM HYDROGEN DIFLUORIDE, solid	II	8			Y815
UN2509	POTASSIUM HYDROGEN SULPHATE	II	8			Y815
UN2869	TITANIUM TRICHLORIDE MIXTURE	II	8			Y815
UN1740	HYDROGENDIFLUORIDES, SOLID, N.O.S.	III	8			Y825
UN2869	TITANIUM TRICHLORIDE MIXTURE	III	8			Y825

Y8X4 PACKING INSTRUCTION Y8X4 Y8X4

The requirements of Part 3, Chapter 4 must be met.

Single packagings are not permitted

COMBINATION PACKAGINGS:

INNER:

The following inner packagings are authorized for the indicated mass of solid for passenger or cargo aircraft. When a packaging is not permitted the word "prohibited" is indicated.

	PG I	*PG II*	*PG III*
Glass or earthen ware (IP.1)	Prohibited	0.5 kg	1 kg
Plastic (IP.2)	Prohibited	0.5 kg	1 kg
Metal (IP.3, IP.3A)	Prohibited	0.5 kg	1 kg
Plastic bag (IP.5)	Prohibited	0.5 kg	1 kg

OUTER:

Boxes	***Drums***	***Jerricans***
aluminium	aluminium	aluminium
fibreboard	fibre	plastic
plywood	plastic	steel
reconstituted wood	plywood	
expanded plastic	steel	
solid plastic	other metal	
steel		
wooden		

Particular Packing Requirements

PPR8X8 For UN 2949, plastic bags (IP.5) are not permitted as inner packagings

Notes:

This packing instruction combines the majority of substances in the existing packing instructions Y814 and Y822. Inner quantity limits have not been changed.

The following PPR is judged to be a compatibility issue, and has been removed from the packing instruction for the timebeing.

PPR8XX For UN 2949 steel packagings must be corrosion-resistant or with protection against corrosion

The UN numbers and proper shipping names assigned to Y8X4 are:

UN#	ICAO PSN	PG	CLASS	SUB	LQ PI
UN1725	ALUMINIUM BROMIDE, ANHYDROUS	II	8		Y814
UN1726	ALUMINIUM CHLORIDE, ANHYDROUS	II	8		Y814
UN1733	ANTIMONY TRICHLO RIDE, SOLID	II	8		Y814
UN1756	CHROMIC FLUORIDE, SOLID	II	8		Y814
UN1770	DIPHENYLMETHYL BROMIDE	II	8		Y814
UN1794	LEAD SULPHATE	II	8		Y814
UN1813	POTASSIUM HYDROXIDE, SOLID	II	8		Y814
UN1823	SODIUM HYDROXIDE, SOLID	II	8		Y814
UN1825	SODIUM MONOXIDE	II	8		Y814
UN1847	POTASSIUM SULPHIDE, HYDRATED	II	8		Y814
UN1849	SODIUM SULPHIDE, HYDRATED	II	8		Y814
UN2033	POTASSIUM MONOXIDE	II	8		Y814
UN2308	NITROSULPHURIC ACID, SOLID	II	8		Y814
UN2506	AMMONIUM HYDROGEN SULPHATE	II	8		Y814
UN2583	ALKY SULPHONIC ACIDS, SOLID with more than 5% free sulphuric acid	II	8		Y814
UN2670	CYANURIC CHLORIDE	II	8		Y814
UN2678	RUBIDIUM HYDROXIDE	II	8		Y814
UN2680	LITHIUM HYDROXIDE, SOLID	II	8		Y814
UN2682	CAESIUM HYDROXIDE	II	8		Y814
UN2751	DIETHYLTHIOPHOSPHORYL CHLORIDE	II	8		Y814
UN2851	BORON TRIFLUORIDE DIHYDRATE	II	8		Y814
UN2921	CORROSIVE SOLID, FLAMMABLE, N.O.S.*	II	8	4.1	Y814
UN2949	SODIUM HYDROSULPHIDE with not less than 25% water of crystallization	II	8		Y815
UN3084	CORROSIVE SOLID, OXIDIZING, N.O.S.*	II	8	5.1	Y814
UN3096	CORROSIVE SOLID, WATER-REACTIVE, N.O.S.*	II	8	4.3	Y814
UN3244	SOLIDS CONTAINING CORROSIVE LIQUID, N.O.S.*	II	8		Y814
UN1773	FERRIC CHLORIDE, ANHYDROUS	III	8		Y822
UN1793	ISOPROPYL ACID PHOSPHATE	III	8		Y822
UN1907	SODA LIME	III	8		Y822
UN1910	CALCIUM OXIDE	III	8		Y822
UN2214	PHTHALIC ANHYDRIDE	III	8		Y822
UN2215	MALEIC ANHYDRIDE	III	8		Y822
UN2280	HEXAMETHYLENEDIAMINE, SOLID	III	8		Y822
UN2331	ZINC CHLORIDE, ANHYDROUS	III	8		Y822
UN2430	ALKYLPHENOLS, SOLID, N.O.S. (including C2-C12 homologues)	III	8		Y822
UN2430	ALKYLPHENOLS, SOLID, N.O.S. (including C2-C12 homologues)	III	8		Y822
UN2440	STANNIC CHLORIDE PENTAHYDRATE	III	8		Y822

UN#	ICAO PSN	PG	CLASS	SUB	LQ PI
UN2475	VANADIUM TRICHLORIDE	III	8		Y822
UN2503	ZIRCONIUM TETRACHLORIDE	III	8		Y822
UN2507	CHLOROPLATINIC ACID, SOLID	III	8		Y822
UN2508	MOLYBDENUM PENTACHLORIDE	III	8		Y822
UN2511	2-CHLOROPROPIONIC-ACID, SOLID	III	8		Y822
UN2578	PHOSPHORUS TRIOXIDE	III	8		Y822
UN2579	PIPERAZINE	III	8		Y822
UN2585	ALKYLSULPHONIC ACIDS, SOLID with not more than 5% free sulphuric acid	III	8		Y822
UN2698	TETRAHYDROPHTHALIC ANHYDRIDES	III	8		Y822
UN2802	COPPER CHLORIDE	III	8		Y822
UN2812	SODIUM ALUMINATE, SOLID	III	8		Y822
UN2823	CROTONIC ACID, SOLID	III	8		Y822
UN2834	PHOSPHOROUS ACID , SOLID	III	8		Y822
UN2865	HYDROXYLAMINE SULPHATE	III	8		Y822
UN2905	CHLOROPHENOLATES, SOLID	III	8		y822
UN2923	CORROSIVE SOLID, TOXIC, N.O.S.*	III	8	6.1	Y822
UN2923	CORROSIVE SOLID, TOXIC, N.O.S.*	III	8	6.1	Y822
UN2967	SULPHAMIC ACID	III	8		Y822
UN3147	DYE INTERMEDIATE, SOLID, CORROSIVE, N.O.S.*	III	8		Y822
UN3147	DYE, SOLID, CORROSIVE, N.O.S.*	III	8		Y822
UN3253	DISODIUM TRIOXOSILICATE	III	8		Y822
UN3259	AMINES, SOLID, CORROSIVE, N.O.S.*	III	8		Y822
UN3259	POLYAMINES, SOLID, CORROSIVE, N.O.S.*	III	8		Y822
UN3260	CORROSIVE SOLID, ACIDIC, INORGANIC, N.O.S.*	III	8		Y822
UN3260	CORROSIVE SOLID, ACIDIC, INORGANIC, N.O.S.*	III	8		Y822
UN3261	CORROSIVE SOLID, ACIDIC, ORGANIC, N.O.S.*	III	8		Y822
UN3261	CORROSIVE SOLID, ACIDIC, ORGANIC, N.O.S.*	III	8		Y822
UN3262	CORROSIVE SOLID, BASIC, INORGANIC, N.O.S.*	III	8		Y822
UN3262	CORROSIVE SOLID, BASIC, INORGANIC, N.O.S.*	III	8		Y822
UN3263	CORROSIVE SOLID, BASIC, ORGANIC, N.O.S.*	III	8		Y822
UN3263	CORROSIVE SOLID, BASIC, ORGANIC, N.O.S.*	III	8		Y822

Class 9

900	PACKING INSTRUCTION 900	900

Vehicles, machines or equipment containing internal combustion engines or batteries must meet the following requirements:

a) except as otherwise provided for in this Packing Instruction, fuel tanks must be drained of fuel and tank caps fitted securely.

Special precautions are necessary to ensure complete drainage of the fuel system of vehicles, machines or equipment incorporating internal combustion engines, such as lawn mowers and outboard motors, where such machines or equipment could possibly be handled in other than an upright position. When it is not possible to handle in other than an upright position, vehicles, except those with diesel engines, must be drained of fuel as far as practicable, and if any fuel remains, it must not exceed one-quarter of the tank capacity. Vehicles equipped with diesel engines are excepted from the requirement to drain the fuel tanks, provided that a sufficient ullage space has been left inside the tank to allow fuel expansion without leakage, and the tank caps are tightly closed. A careful check must be made to ensure there are no fuel leakages;

b) for flammable gas-powered vehicles, machines or equipment, pressurized vessels containing the flammable gas must be completely emptied of flammable gas. Lines from vessels to gas regulators, and gas regulators themselves, must also be drained of all trace of flammable gas. To ensure that these conditions are met, gas shut-off valves must be left open and connections of lines to gas regulators must be left disconnected upon delivery of the vehicle to the operator. Shut-off valves must be closed and lines reconnected at gas regulators before loading the vehicle aboard the aircraft;

c) if non-spillable batteries, as defined in Packing Instruction 806, are installed, they must be securely fastened in the battery holder of the vehicle, machine or equipment and be protected in such a manner as to prevent damage and short circuits;

d) if spillable batteries are installed, they must be securely fastened in the battery holder of the vehicle, machine or equipment and be protected in such a manner as to prevent damage and short circuits. However, if it is possible for the vehicle, machine or equipment to be handled in such a way that batteries would not remain in their intended orientation, they must be removed and packed according to Packing Instruction 433 or 800 as applicable;

e) dangerous goods required for the operation of the vehicle, machine or equipment, such as fire extinguishers, tire inflation canisters, safety devices, etc., must be securely mounted in the vehicle, machine or equipment. Aircraft may also contain other articles and substances which would otherwise be classified as dangerous goods but which are installed in that aircraft in accordance with the pertinent airworthiness requirements and operating regulations. If fitted, life-rafts, emergency escape slides and other inflation devices must be protected such that they cannot be activated accidentally. Vehicles containing dangerous goods identified in Table 3-1 as forbidden on passenger aircraft may only be transported on cargo aircraft; and

f) in the event that vehicles, machines or equipment containing internal combustion engines are being shipped in a dismantled state such that fuel lines have been disconnected, those fuel lines must be sealed securely.

g) when internal combustion engines are being shipped separately, all fuel, coolant or hydraulic systems remaining in or on the engine must be drained as far as practicable and all disconnected fluid pipes must be sealed with leak-proof caps, which are positively retained.

h) Vehicles equipped with theft-protection devices, installed radio communications equipment or navigational system must have such devices, equipment or system disabled.

Replacements for the dangerous goods permitted in paragraphs a) to e) must not be carried under this packing instruction.

Notes: No change.
The proper shipping names and UN numbers assigned to PI 900 are:

UN#	ICAO PSN	CLASS	PG	SUB-R	PASS PI	CARGO PI
UN3166	ENGINES, INTERNAL COMBUSTION (FLAMMABLE GAS POWERED)	9			FORBIDDEN	900
UN3166	ENGINES, INTERNAL COMBUSTION (FLAMMABLE LIQUID POWERED)	9			900	900
UN3166	VEHICLE (FLAMMABLE GAS POWERED)	9			FORBIDDEN	900
UN3166	VEHICLE (FLAMMABLE LIQUID POWERED)	9			900	900

902 PACKING INSTRUCTION 902 902

Magnetized material will be accepted only when:

a) devices such as magnetrons and light meters have been packed so that the polarities of the individual units oppose one another;

b) permanent magnets, where possible, have keeper bars installed;

c) the magnetic field strength at a distance of 4.6 m from any point on the surface of the assembled consignment:

1) does not exceed 0.418 A/m; or

2) produces a magnetic compass deflection of 2 degrees or less.

Determination of shielding requirements

The magnetic field strength of magnetized materials must be measured using measuring devices having a sensitivity sufficient to measure magnetic fields greater than 0.0398 A/m within a tolerance of plus or minus 5 per cent, or with a magnetic compass sensitive enough to read a 2 degree variation, preferably in 1 degree increments or finer. If the maximum field strength observed at a distance of 2.1 m is less than 0.159 A/m or there is no significant compass deflection (less than 0.5 degree), the article is not restricted as a magnetized material. Methods of determining if a magnetized article meets the definition of a magnetized material include:

a) When an oersted meter is used, it is placed on one of two points positioned 4.6 m apart and located in an area that is free from magnetic interference other than the earth=s magnetic field. The oersted meter is then aligned with the second point and Abalanced@ to a zero reading. The magnetic article is then placed on the other point and the magnetic field strength is measured by reading the meter while rotating the package 360 degrees in its horizontal plane. If the maximum field strength observed is 0.418 A/m or less, the article is acceptable for air transport. When the maximum field strength exceeds 0.418 A/m, shielding should be applied until a reading of 0.418 A/m or less has been attained.

b) When a magnetic compass is used as a sensing device, it should be placed on one of two points positioned 4.6 m apart which are aligned in an East/West direction and in an area that is free from any magnetic interference other than the earth=s magnetic field. The packaged item to be tested is placed on the other point and rotated 360 degrees in its horizontal plane for indication of compass deflection. When the maximum compass deflection observed is 2 degrees or less, the article is acceptable for air transport. When the maximum compass deflection of an item exceeds 2 degrees, shielding must be applied until the maximum deflection is not more than 2 degrees.

Note.C For loading restrictions, see Part 7;2.10.

Notes: No change.

The proper shipping names and UN numbers assigned to PI 902 are:

UN#	ICAO PSN	CLASS	PG	SUB-R	PASS PI	CARGO PI
UN2807	MAGNETIZED MATERIAL	9			902	902

904 PACKING INSTRUCTION 904 904

Solid carbon dioxide (dry ice) when offered for transport by air must be packed in accordance with the general packing requirements of Part 4, Chapter 1 and be in packaging designed and constructed to permit the release of carbon dioxide gas to prevent a build-up of pressure that could rupture the packaging. Arrangements between shipper and operator(s) must be made for each shipment, to ensure that ventilation safety procedures are followed. The dangerous goods transport document requirements of Part 4, Chapter 1 are not applicable provided alternative documentation containing the information required by 5;4.1, excluding the packing instruction number and packing group, is supplied.

Note.C For loading restrictions see Part 7;2.11; for special marking requirement see Part 5;2.4.7.

Notes: No change.

The proper shipping names and UN numbers assigned to PI 904 are:

UN#	ICAO PSN	CLASS	PG	SUB-R	PASS PI	CARGO PI
UN1845	CARBON DIOXIDE, SOLID	9	III		904	904

905 PACKING INSTRUCTION 905 905

The description ›Life-saving appliances, self-inflating: (UN 2990) is intended to apply to life-saving appliances that present a hazard if the self-inflating device is activated accidentally.

Life-saving appliances, such as life-rafts, life vests, aircraft survival kits or aircraft evacuation slides, may only contain the dangerous goods listed below:

a) Division 2.2 gases, in cylinders as permitted in Packing Instruction 200; these may be connected to the life-saving appliance;

b) signal devices (Class 1), which may include smoke and illumination signal flares; signal devices must be packed in plastic or fibreboard inner packagings;

c) small quantities of flammable substances, corrosive solids and organic peroxides (Class 3, Class 8, Division 4.1 and 5.2), which may include a repair kit and not more than 30 strike-anywhere matches. The organic peroxide may only be a component of a repair kit and the kit must be packed in strong inner packaging. The strike-anywhere matches must be packed in a cylindrical metal or composition packaging with a screw-type closure and be cushioned to prevent movement;

d) electric storage batteries (Class 8) and lithium batteries (Class 9); and

e) first aid kits which may include flammable, corrosive and toxic articles or substances.

The appliances must be packed, so that they cannot be accidentally activated, in strong outer packagings and, except for life vests, the dangerous goods must be in inner packagings packed so as to prevent movement. The dangerous goods must be an integral part of the appliance without which it would not be operational and in quantities which do not exceed those appropriate for the actual appliance when in use.

Passenger restraint systems consisting of a cylinder charged with a non-liquefied, non-flammable compressed gas and no more than two actuating cartridges per passenger restraint system that meet the requirements of the State of Manufacture must be packed in strong outer packagings so they cannot be accidentally activated.

Life-saving appliances may also include articles and substances not subject to these Instructions which are an integral part of the appliance.

Notes: No change.

The proper shipping names and UN numbers assigned to PI 905 are:

UN#	ICAO PSN	CLASS	PG	SUB-R	PASS PI	CARGO PI
UN2990	LIFESAVING APPLIANCES, NOT SELF-INFLATING or SELF-INFLATING	9			905	905

906 PACKING INSTRUCTION 906 906

The general packing requirements of Part 4, Chapter 1 must be met.

Notes: No change.

The proper shipping names and UN numbers assigned to PI 906 are:

UN#	ICAO PSN	CLASS	PG	SUB-R	PASS PI	CARGO PI
UN1841	ACETALDEHYDE AMMONIA	9	III		906	906
UN1931	ZINC DITHIONITE	9	III		906	906
UN2969	CASTOR BEANS, FLAKE, MEAL, or POMACE	9	II		906	906

908 PACKING INSTRUCTION 908 908

The general packing requirements of Part 4, Chapter 1 must be met.

Polymeric beads or granules, expandable, impregnated with flammable gas or liquid as a blowing agent and plastic moulding materials in dough, sheet or extruded rope form must be packed in wooden (4C1, 4C2), plywood (4D), fibreboard (4G) or reconstituted wood (4F) boxes with sealed inner plastic liner, plywood drums (1D), fibre drums (1G) with sealed inner plastic liner or in metal (1A1, 1A2, 1B1, 1B2) packagings.

*Note.**C** For loading restrictions see Part 7;2.12.*

Notes: No change.

The proper shipping names and UN numbers assigned to PI 908 are:

UN#	ICAO PSN	CLASS	PG	SUB-R	PASS PI	CARGO PI
UN2211	POLYMERIC BEADS, EXPANDABLE	9	III		908	908
UN3314	PLASTIC MOULDING COMPOUND	9	III		908	908

909 PACKING INSTRUCTION 909 909

The general packing requirements of Part 4, Chapter 1 must be met.

Ammonium nitrate fertilizers (UN 2071) must be carried in:

a) rigid, sift-proof packagings (1A2, 1B2, 3A2, 1D, 1G, 1H2, 3H2 or 4C2); or

b) 5L2, 5L3, 5H2, 5H3 or 5H4 bags.

White asbestos (UN 2590) must be carried in:

a) rigid, sift-proof packagings (1A2, 1B2, 3A2, 1D, 1G, 1H2, 3H2, 4C2, 4D, 4G, 4F, 4H1 or 4H2); or

b) 5L2, 5L3, 5H2, 5H3 or 5H4 bags, which must be palletized and unitized by methods such as shrink-wrapping in plastic film or wrapping in fibreboard secured by strapping.

Packagings for white asbestos must prevent the release of dust or fibers.

Note: No change.

The proper shipping names and UN numbers assigned to PI 909 are:

UN#	ICAO PSN	CLASS	PG	SUB-R	PASS PI	CARGO PI
UN2071	AMMONIUM NITRATE FERTILIZERS	9	III		909	909
UN2590	WHITE ASBESTOS	9	III		909	909

Y909 PACKING INSTRUCTION Y909 Y909

The requirements of Part 3, Chapter 4 must be met. The general packing requirements of Part 4, Chapter 1 need not be met.

Single packagings are not permitted.

COMBINATION PACKAGINGS:

INNER:

The following inner packagings are authorized for the indicated mass of solid for passenger or cargo aircraft.

	Passenger and Cargo Aircraft
Glass or earthenware (IP.1)	5 kg
Plastic (IP.2)	5 kg
Metal (IP.3, IP.3A)	5 kg
Paper (IP.4)	5 kg
Plastic bag (IP.5)	5 kg
Fibre (IP.6)	5 kg
Paper, plastic/aluminium (IP.10)	5 kg

OUTER:

Boxes	***Drums***	***Jerricans***
aluminium	aluminium	aluminium
fibreboard plastic plywood reconstituted wood steel wooden	fibre plastic plywood steel	plastic steel

Additional Requirement:
1. The maximum gross mass per package is 30 kg.

Note: No change in packaging requirements.
Added the gross weight limit from the Dangerous Goods List.
Restructured for consistency.

The proper shipping names and UN numbers assigned to PI Y909 are:

UN#	ICAO PSN	CLASS	PG	SUB-R	PASS PI	CARGO PI
UN2071	AMMONIUM NITRATE FERTILIZERS	9	III		Y909	

Consumer commodities are materials that are packaged and distributed in a form intended or suitable for retail sale for purposes of personal care or household use. These include items administered or sold to patients by doctors or medical administrations. Except as otherwise provided below, dangerous goods packed in accordance with this Packing Instruction do not need to comply with Part 4, Chapter 1 or Part 6 of these Instructions; they must, however, comply with all other applicable requirements.

a) Each packaging must be designed and constructed to prevent leakage that may be caused by changes in altitude and temperature during air transport.

b) Inner packagings that are breakable (such as earthenware, glass or brittle plastic) must be packed to prevent breakage and leakage under conditions normally incident to transport. These completed packagings must be capable of withstanding a 1.2 m drop on solid concrete in the position most likely to cause damage.

c) When filling receptacles for liquids, sufficient ullage (outage) must be left to ensure that neither leakage nor permanent distortion of the receptacle will occur as a result of an expansion of the liquid caused by temperatures likely to prevail during transport. Unless specific requirements are prescribed in national rules or international agreements, liquids must not completely fill a receptacle at a temperature of 55°C. At this temperature a minimum ullage of 2 per cent should be left. The primary packaging (which may include composite packaging), for which retention of the liquid is a basic function, must be capable of withstanding, without leakage, an internal pressure which produces a pressure differential of not less than 75 kPa or a pressure related to the vapour pressure of the liquid to be conveyed, whichever is the greater. The pressure related to the vapour pressure must be determined by the method shown in Part 4;1.1.6.1. Tests on sample receptacles must be carried out to demonstrate the capability of the primary packaging to withstand the above pressure.

d) Stoppers, corks or other such friction-type closures must be held securely, tightly and effectively in place by positive means. The closure device must be so designed that it is extremely improbable that it can be incorrectly or incompletely closed and must be such that it may be easily checked to determine that it is completely closed.

e) Inner packagings must be tightly packed in strong outer packagings and must be so packed, secured or cushioned as to prevent any breakage, leakage or significant movement within the outer packaging(s) during normal conditions of transport. Absorbent material must be provided for glass or earthenware inner packaging(s) containing consumer commodities in Class 2 or 3 or liquids of Division 6.1, in sufficient quantity to absorb the liquid contents of the largest of such inner packagings contained in the outer packaging. Absorbent and cushioning material must not react dangerously with the contents of the inner packagings. Notwithstanding the above, absorbent material may not be required if the inner packagings are so protected that breakage of the inner packagings and leakage of their contents from the outer packaging will not occur during normal conditions of transport.

f) Packagings (including closures) in direct contact with dangerous goods must be resistant to any chemical or other action of such goods; the materials of the receptacles must not contain substances which may react dangerously with the contents, form hazardous products or significantly weaken the receptacles.

g) Each completed package as prepared for shipment must not exceed a gross mass of 25 kg.

h) Class 2 substances must be further limited to aerosol products containing non-toxic compressed or liquefied gas(es) that are necessary to expel liquids, powders or pastes, packed in inner non-refillable non-metal receptacles not exceeding 120 mL capacity each, or in inner non-refillable metal receptacles not exceeding 820 mL capacity each (except that flammable aerosols must not exceed 500 mL capacity each), subject in either case to the following provisions:

1) the pressure in the aerosol must not exceed 1 500 kPa at 55°C and each receptacle must be capable of withstanding without bursting a pressure of at least 1.5 times the equilibrium pressure of the contents at 55°C;

2) if the pressure in the aerosol exceeds 970 kPa at 55°C but does not exceed 1 105 kPa at 55°C, an inner IP.7, IP.7A or IP.7B metal receptacle must be used;

3) if the pressure in the aerosol exceeds 1 105 kPa at 55°C but does not exceed 1 245 kPa at 55°C, an IP.7A or IP.7B metal receptacle must be used;

4) if the pressure in the aerosol exceeds 1 245 kPa at 55°C, an IP.7B metal receptacle must be used;

5) IP.7B metal receptacles having a minimum burst pressure of 1 800 kPa may be equipped with an inner capsule charged with a non-flammable, non-toxic compressed gas to provide the propellant function. In this case, the pressures indicated in 1), 2), 3) or 4) above do not apply to the pressure within the capsule. The quantity of gas contained in the capsule must be so limited such that the minimum burst pressure of the receptacle would not be exceeded if the entire gas content of the capsule were released into an aerosol.

6) the liquid contents must not completely fill the closed receptacle at 55°C;

7) each aerosol exceeding 120 mL capacity must have been heated until the pressure in the aerosol is equivalent to the equilibrium pressure of the contents at 55°C, without evidence of leakage, distortion or other defect; and

8) the valves must be protected by a cap or other suitable means during transport.

i) For aerosols containing a biological or medical preparation which will be deteriorated by a heat test and which are non-toxic and non-flammable, packed in inner non-refillable receptacles not exceeding 575 mL capacity each, the following provisions are applicable:

1) the pressure in the aerosol must not exceed 970 kPa at 55°C;

2) the liquid contents must not completely fill the closed receptacle at 55°C;

3) one aerosol out of each lot of 500 or less must be heated until the pressure in the aerosol is equivalent to the equilibrium pressure of the contents at 55°C, without evidence of leakage, distortion or other defect; and

4) the valves must be protected by a cap or other suitable means during transport.

j) Except for aerosols, inner packagings must not exceed:

1) 500 mL for liquids; and

2) 500 g for solids.

k) Consumer commodities shipped according to these provisions may be shipped in a unit load device prepared by a single shipper provided that no other dangerous goods are included in the unit load device.

l) The gross mass on the dangerous goods transport document must be shown as:

1) for one package, the actual gross mass of the package;

2) for more than one package, either the actual gross mass of each package or as the average mass of the packages. (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".)

Notes: No change.

The proper shipping names and UN numbers assigned to PI 910 are:

UN#	ICAO PSN	CLASS	PG	SUB-R	PASS PI	CARGO PI
8000	CONSUMER COMMODITY	9				910

911 PACKING INSTRUCTION 911 911

The general packing requirements of Part 4, Chapter 1 must be met.

COMBINATION PACKAGINGS:

INNER:

The following inner packagings are authorized for the indicated mass of solid for passenger and cargo aircraft.

	Passenger and Cargo Aircraft
Glass or earthenware (IP.1)	5 kg
Plastic (IP.2)	10 kg
Metal (IP.3, IP.3A)	10 kg
Paper (IP.4)	5 kg
Plastic bag (IP.5)	5 kg
Fibre (IP.6)	5 kg
Paper, plastic/aluminium (IP.10)	5 kg

OUTER:

Boxes	***Drums***	***Jerricans***
aluminium (4B)	aluminium (1B2)	aluminium (3B2)
fibreboard (4G) plastic (4H1, 4H2) plywood (4D) reconstituted wood (4F) steel (4A) wooden (4C1, 4C2)	fibre (1G) other metal (1N2) plastic (1H2) plywood (1D) steel (1A2)	plastic (3H2) steel (3A2)

SINGLE PACKAGINGS:

Bags	***Boxes***	***Drums***	***Jerricans***	***Composities (plastic)***
5M2, 5H4, 5L3, and 5H3	4A, 4B, 4C1, 4C2, 4D, 4F, 4G, and 4H2	1A1, 1A2, 1B1, 1B2, 1D, 1G, 1H1, 1H2, 1N1, and 1N2	3A1, 3A2 3B1, 3B2, 3H1, and 3H2	6HA1, 6HB1, 6HG1, 6HH1, 6HD1, 6HA2, 6HB2, 6HC, 6HD2, 6HG2 and or 6HH2

Notes: Inner packaging IP.8 removed, now included in IP.1 definition.
Added 1N2 drums as authorized outer packaging for combination packagings.
Added 1N1 and 1N2 drums as authorized single packagings.

The proper shipping names and UN numbers assigned to PI 911 are:

UN#	ICAO PSN	CLASS	PG	SUB-R	PASS PI	CARGO PI
UN2315	POLYCHLORINATED BIPHENYLS, SOLID	9	II		911	911
UN3077	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.	9	III		911	911

UN#	ICAO PSN	CLASS	PG	SUB-R	PASS PI	CARGO PI
UN3152	POLYHALOGENATED BIPHENYLS or TERPHENYLS, SOLID	9	II		911	911

913 PACKING INSTRUCTION 913 913

The general packing requirements of Part 4, Chapter 1 must be met.

Genetically modified micro-organisms must be packed according to Packing Instruction 602, except that the packagings need not be tested as provided for in Part 6, Chapter 6. The maximum quantity in a primary receptacle must not exceed 100 mL or 100 g.

Notes: No change.

The proper shipping names and UN numbers assigned to PI 913 are:

UN#	ICAO PSN	CLASS	PG	SUB-R	PASS PI	CARGO PI
UN3245	GENETICALLY MODIFIED MICRO-ORGANISMS	9			913	913

915 PACKING INSTRUCTION 915 915

The general packing requirements of Part 4, Chapter 1 must be met except that the requirements of Part 4;1.1.8 and 1.1.16 do not apply.

COMBINATION PACKAGINGS:

INNER:

Inner packagings must not exceed 250 mL for liquids or 250 g for solids and must be protected from other materials in the kit. The total quantity of dangerous goods in any one kit must not exceed 1 L or 1 kg.

OUTER:

Kits must be packed in one of the following:

Boxes
aluminium (4B)
fibreboard (4G)
plastic (4H1, 4H2)
plywood (4D)
reconstituted wood (4F)
steel (4A)
wooden (4C1, 4C2)

Additional Requirements:
1. The kits may contain dangerous goods which require segregation according to Table 7-1. The packing group assigned to the kit as a whole must be the most stringent packing group assigned to any individual substance contained in the kit.
2. Kits must not be packed with other dangerous goods in the same outer packaging.
3. The total quantity of dangerous goods in any one package must not exceed 10 kg.

Notes: No change in packaging requirements.
Restructured for consistency.

The proper shipping names and UN numbers assigned to PI 915 are:

UN#	ICAO PSN	CLASS	PG	SUB-R	PASS PI	CARGO PI
UN3316	CHEMICAL KIT	9			915	915
UN3316	FIRST AID KIT	9			915	915

Y915 **PACKING INSTRUCTION Y915** **Y915**

The requirements of Part 3, Chapter 4 must be met except that Part 3;4.3.3 does not apply.

Single packagings are not permitted.

COMBINATION PACKAGINGS:

INNER:

Inner packagings must not exceed 30 mL for liquids or 100 g for solids and must be protected from other materials in the kit.

OUTER:

Kits must be packed in metal, wooden, plywood, reconstituted wood, fibreboard or plastic boxes.

Additional Requirements:
1) Kits may contain dangerous goods which require segregation according to Table 7-1.
2) Kits must not be packed with other dangerous goods in the same outer packaging.
3) The total quantity of dangerous goods in any one kit and in any one package must not exceed 1 kg.

Notes: No change in packaging requirements.
Restructured for consistency.

The proper shipping names and UN numbers assigned to Y915 are:

UN#	ICAO PSN	CLASS	PG	SUB-R	PASS PI	CARGO PI
UN3316	CHEMICAL KIT	9			Y915	
UN3316	FIRST AID KIT	9			Y915	

916 PACKING INSTRUCTION 916 916

The general packing requirements of Part 4, Chapter 1 must be met except that the requirements of Part 4;1.1.2, 1.1.8, 1.1.10, 1.1.13 and 1.1.16 do not apply.

Machinery or Apparatus (other than fuel system components)
For other than fuel system components, machinery or apparatus may only contain dangerous goods permitted under Part 3;4.1.2. If the machinery or apparatus contains more than one item of dangerous goods, the individual substances must not be capable of reacting dangerously together.

a) The nature of the containment must be such that:
   1) damage to receptacles containing the dangerous goods during air transport is unlikely; and
   2) in the event of damage to receptacles containing the dangerous goods, no leakage of the dangerous goods from the machinery or apparatus is possible. A leakproof liner may be required.
b) Dangerous goods in machinery or apparatus must be packed in strong outer packagings unless the receptacles containing the dangerous goods are afforded adequate protection by the construction of the machinery or apparatus.
c) Receptacles containing dangerous goods must be secured or cushioned as to prevent their breakage or leakage and so as to control their movement within the machinery or apparatus during normal conditions of transport. Cushioning material must not react dangerously with the contents of the receptacles. Any leakage of the contents must not substantially impair the protective properties of the cushioning material.
d) For Division 2.2 gases, the inner cylinder or pressure vessel for gases, their contents and filling densities must conform to the requirements of the State in which the cylinders or pressure vessels are filled.
e) The total net quantity of dangerous goods contained in one package must not exceed the following:
   1) 1 kg in the case of solids;
   2) 0.5 L in the case of liquids;
   3) 0.5 kg in the case of Division 2.2 gases;
   or any combination thereof.

Fuel System Components

Fuel system components must be emptied of fuel as far as practicable and all openings must be sealed securely. They must be packed:

a) In sufficient absorbent material to absorb the maximum amount of liquid which may possibly remain after emptying. Where the outer packaging is not liquid tight, a means of containing the liquid in the event of leakage must be provided in the form of a leakproof liner, plastic bag or other equally efficient means of containment;
b) In strong outer packagings.

Additional Requirement:
1. »Package orientation: labels (Figure 5-25), or pre-printed orientation labels meeting the same specification as either Figure 5-25 or ISO Standard 780-1985 must be affixed on at least two opposite vertical sides with the arrows pointing in the correct direction only when required to ensure liquid dangerous goods remain in their intended orientation.

Notes: No change in packaging requirements.
Restructured for consistency.

The proper shipping names and UN numbers assigned to PI 916 are:

UN#	ICAO PSN	CLASS	PG	SUB-R	PASS PI	CARGO PI
UN3363	DANGEROUS GOODS IN APPARATUS or MACHINERY	9			916	916

917 PACKING INSTRUCTION 917 917

The general packing requirements of Part 4, Chapter 1 must be met.

Air bag inflators, air bag modules and seat-belt pretensioners must be packed in steel drums (1A2), aluminium drums (1B2), plywood drums (1D) or fibre drums (1G), plastic drums (1H2), plastic jerricans (3H2), steel jerricans (3A2), wooden boxes (4C1, 4C2), plywood boxes (4D), reconstituted wood boxes (4F), fibreboard boxes (4G), solid plastic boxes (4H2), steel or aluminium boxes (4A, 4B).

Air bag inflators, air bag modules and seat-belt pretensioners may also be transported unpackaged on cargo aircraft in dedicated handling devices when transported from where they are manufactured to vehicle assembly plants. When transported in handling devices, the following conditions must be met:

a) air bag inflators, air bag modules or seat-belt pretensioners as fitted in the handling device must be capable of meeting the test criteria prescribed in Special Provision A56;

b) the handling device must be completely enclosed; and

c) each air bag inflator, air bag module or seat-belt pretensioner unit must be secured within the handling device to prevent movement in transport.

Notes: No change.

The proper shipping names and UN numbers assigned to PI 917 are:

UN#	ICAO PSN	CLASS	PG	SUB-R	PASS PI	CARGO PI
UN3268	AIR BAG INFLATORS or MODULES	9	III		917	917

9X1 PACKING INSTRUCTION 9X1 9X1

The general packing requirements of Part 4, Chapter 1 must be met.

Lithium cells and batteries may only be transported under this Packing Instruction if they meet the following requirements. The following requirements apply to cells and batteries containing lithium in any form, including lithium polymer and lithium ion cells and batteries:

a) each cell or battery type has been determined to meet the criteria for assignment to Class 9 on the basis of tests carried out in accordance with the *Manual of Tests and Criteria*, Part III, subsection 38.3;

b) each cell and battery must incorporate a safety venting device or be designed to preclude a violent rupture under conditions normally incident to transport;

c) each cell and battery must be equipped with an effective means of preventing external short circuits;

d) each battery containing cells or series of cells connected in parallel must be equipped with an effective means as necessary to prevent dangerous reverse current flow (e.g. diodes, fuses, etc.);

Cells assigned to Class 9 are forbidden for transport if the cells have been discharged to the extent that the open circuit voltage is less than the lower of:

a) 2 volts; or
b) two-thirds of the voltage of the undischarged cell; or batteries containing one or more such cells.

1. Lithium Batteries UN3090.

a) Cells and batteries must be packed within inner packagings to effectively prevent short circuits and to prevent movement which could lead to short circuits;

b) Cells and batteries must be packed in steel drums (1A2), aluminium drums (1B2), plywood drums (1D) or fibre drums (1G), plastic drums (1H2), plastic jerricans (3H2), steel jerricans (3A2), wooden boxes (4C1, 4C2), plywood boxes (4D), reconstituted wood boxes (4F), fibreboard boxes (4G), solid plastic boxes (4H2), steel or aluminium boxes (4A, 4B) of Packing Group II.

2. Lithium Batteries Contained in Equipment UN 3091.

a) Equipment containing lithium batteries must be packed in accordance with the general packing requirements of Part 4, Chapter 1 and be contained in strong outer packaging. The outer packaging must be waterproof or made waterproof through the use of a liner, such as a plastic bag unless the equipment is made waterproof by nature of its construction. The equipment must be secured against movement within the outer packaging, be protected against short-circuit, and be packed so as to prevent accidental operation during air transport.

b) The quantity of lithium metal contained in any piece of equipment must not exceed 12 g per cell and 500 g per battery.

c) Not more than 5 kg of lithium batteries may be contained in any piece of equipment.

3. Lithium Batteries Packed With Equipment UN 3091. For the purposes of this packaging instruction, "equipment" means apparatus requiring the lithium batteries with which it is packed for its operation.

a) Lithium cells and batteries must be packed in fibreboard boxes (4G) or fibre drums (1G) of Packing Group II and in such a manner as to effectively prevent movement which could lead to short circuits.

b) Each packages must not exceed 5 kg gross mass for passenger aircraft or 35 kg gross mass for cargo aircraft.

c) The equipment and the packages of lithium cells or batteries must be overpacked.

Notes: Combined PI 903, 912, and 918 and restructured by placing general requirement applicable to all lithium batteries at the beginning of the instruction.

The proper shipping names and UN numbers assigned to PI 9X1 are:

UN#	ICAO PSN	CLASS	PG	SUB-R	PASS PI	CARGO PI
UN3090	LITHIUM BATTERIES	9	II		903	903
UN3091	LITHIUM BATTERIES CONTAINED IN EQUIPMENT	9	II		912	912

UN#	ICAO PSN	CLASS	PG	SUB-R	PASS PI	CARGO PI
UN3091	LITHIUM BATTERIES PACKED WITH EQUIPMENT	9	II		918	918

9X2 PACKING INSTRUCTION 9X2 9X2

The general packing requirements of Part 4, Chapter 1 must be met.

COMBINATION PACKAGINGS:

INNER*:*

The following inner packagings are authorized for the indicated volume of liquid for passenger or cargo aircraft.

	Passenger and Cargo Aircraft
Glass or earthenware (IP.1)	5 L
Plastic (IP.2)	5 L
Metal (IP.3, IP.3A)	10 L

OUTER:

Boxes	***Drums***	***Jerricans***
aluminium (4B)	aluminium (1B2)	aluminium (3B2)
fibreboard (4G) plastic (4H1, 4H2) plywood (4D) reconstituted wood (4F) steel (4A) wooden (4C1, 4C2)	fibre (1G) other metal (1N2) plastic (1H2) plywood (1D) steel (1A2)	plastic (3H2) steel (3A2)

SINGLE PACKAGINGS:

Drums	***Jerricans***	***Composites (plastic)***	***Cylinders***
1A1, 1A2, 1B1, 1B2, 1H1, 1H2, 1N1, and 1N2	3A1, 3A2, 3B1, 3B2, 3H1, and 3H2	6HA1, 6HB1, 6HG1, 6HH1, 6HD1, 6HA2, 6HB2, 6HC, 6HD2, 6HG2 or 6HH2	as permitted in Packing Instruction 200

Particular Packaging Requirements:

PP9X1 For UN 1941, plastic drums (1H1, 1H2) and plastic jerricans (3H1, 3H2) are not permitted.

Notes: Combined PI 907 and 914.
Added 1N2 drums as authorized outer packaging for combination packagings.
Added 1N1 and 1N2 drums as authorized single packagings.
Added composites with plastic inner packagings allowed in P001.
Added 3B2 aluminum jerricans as an authorized single packaging.
Deleted glass ampoule IP.8.
PI 907 did not include 4H1 Box, the merged instruction does.

The proper shipping names and UN numbers assigned to PI 9X2 are:

UN#	ICAO PSN	CLASS	PG	SUB-R	PASS PI	CARGO PI
UN1941	DIBROMODIFLUOROMETHANE	9	III		907	907
UN1990	BENZALDEHYDE	9	III		907	907
UN2315	POLYCHLORINATED BIPHENYLS, LIQUID	9	II		907	907

UN#	ICAO PSN	CLASS	PG	SUB-R	PASS PI	CARGO PI
UN3082	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.	9	III		914	914
UN3151	POLYHALOGENATED BIPHENYLS, LIQUID	9	II		907	907

Y9XX PACKING INSTRUCTION Y9XX Y9XX

The requirements of Part 3, Chapter 4 must be met.

Single packagings are not permitted.

COMBINATION PACKAGINGS:

INNER:

The following inner packagings are authorized for the indicated volume of liquid or mass of solid (as applicable) for passenger or cargo aircraft.

For Liquids	
Glass or earthenware (IP.1)	1 L
Plastic (IP.2)	1 L
Metal (IP.3, IP.3A)	2 L

For Solids	
Glass or earthenware (IP.1)	1 kg
Plastic (IP.2)	2 kg
Metal (IP.3, IP.3A)	2 kg
Plastic bag (IP.5)	1 kg
Fibre (IP.6)	1 kg
Paper, plastic/aluminium (IP.10)	1 kg

OUTER:

Boxes	*Drums*	*Jerricans*	
aluminium fibreboard plastic plywood reconstituted wood steel wooden	aluminium fibre other metal plastic plywood steel	aluminium plastic steel	

Notes: Combined PI Y907, Y911, and Y914.
Added other metal as an authorized drum.
Y914 also did not include aluminum or steel boxes or aluminum jerricans. The merged instruction does.
Deleted glass ampoule IP.8.

The proper shipping names and UN numbers assigned to PI Y9XX are:

UN#	ICAO PSN	CLASS	PG	SUB-R	PASS PI	CARGO PI
UN1941	DIBROMODIFLUOROMETHANE	9	III		Y907	
UN1990	BENZALDEHYDE	9	III		Y907	
UN3077	ENVIRONMENTALLY HAZARDOUS SUBSTANCES, SOLID, N.O.S.	9	III		Y911	

UN#	ICAO PSN	CLASS	PG	SUB-R	PASS PI	CARGO PI
UN3082	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.	9	III		Y914	

APPENDIX 2

Annex 2 Sample Proposed Layout Incorporating New Combined Packing Instructions

Table 3-1. Dangerous Goods List

Name	*UN No.*	*Class or division*	*sub risk*	*Labels*	*State variations*	*Special provisions*	*UN packing group*	*Packing Instructions*			*Max. net quantity per package*		
								Pass.	Cargo	Ltd. Qty.	Pass.	Cargo	Ltd. Qty.
Accumulators, electric, see **Batteries,** etc.													
Acetal	1088	3		Liquid flammable			II	3X1	3X1	Y3X1	5 L	60 L	1 L
Acetaldehyde	1089	3		Liquid flammable	AU 1 CA 7 GB 3 NL 1 US 3	A1	I	Forbidden	3X3	Forbidden	None	30 L	None
Acetaldehyde ammonia	1841	9		Miscellaneous		A48	III	906	906	Forbidden	200 kg	200 kg	None
Acetaldehyde oxime	2332	3		Liquid flammable			III	3X1	3X1	Y3X1	60 L	220 L	10 L
Acetic acid, glacial	2789	8	3	Corrosive & Liquid flammable		PPR8 X2 PPR8 X3	II	8X1	8X1	Y8X1	1 L	30 L	.5 L
Acetic acid solution, more than 80% acid, by mass	2789	8	3	Corrosive & Liquid flammable		PPR8 X2 PPR8 X3	II	8X1	8X1	Y8X1	1 L	30 L	.5 L
Acetic acid solution, not less than 50% but not more than 80% acid, by mass	2790	8		Corrosive		PPR8 X2	II	8X1	8X1	Y8X1	1 L	30 L	.5 L
Acetic acid solution, more than 10% but less than 50% acid, by mass	2790	8		Corrosive		PPR8 X2	III	8X1	8X1	Y8X1	5 L	60 L	1 L
Acetic anhydride	1715	8	3	Corrosive & Liquid flammable			II	8X1	8X1	Y8X1	1 L	30 L	.5 L
Acetoin, see **Acetyl methyl carbinol**													
Acetone	1090	3		Liquid flammable			II	3X1	3X1	Y3X1	5 L	60 L	1 L
Acetone oils	1091	3		Liquid flammable			II	3X1	3X1	Y3X1	5 L	60 L	1 L

Name	*UN No.*	*Class or division*	*sub risk*	*Labels*	*State variations*	*Special provisions*	*UN packing group*	*Packing Instructions*			*Max. net quantity per package*		
								Pass.	Cargo	Ltd. Qty.	Pass.	Cargo	Ltd. Qty.
Acetonitrile	1648	3		Liquid flammable			II	3X1	3X1	Y3X1	5 L	60 L	1 L
Acetyl bromide	1716	8		Corrosive			II	8X1	8X1	Y8X1	1 L	30 L	.5 L

The working group is requested to consider removing the labels column. This could be achieved by applying special provisions in the few cases where required labels differ from the indicated class and subsidiary risk(s).

The PPRs have been placed in the special provisions column. However it may be preferable to place them in a separate column following the Packing Instruction columns or in the relevant packing instruction column(s). The PPRs will be renumbered.

APPENDIX 3

Annex 3 Rationalisation of Packing Instructions - Class 5

Concordance of Packing Instruction Numbers

Existing **ICAO No.**	**Draft No.**	**Proposed No.**	**Notes**
500	5X1	520	UN No. for 5.2
501	5X3	502	
Y501	Y5XY	Y502	
502	5X1	520	UN No. for 5.2
503	5X3	502	
Y503	5XY	Y502	
505	5X3	502	
506	5X3	502	
Y506	5XY	Y502	
507	5X3	502	
508	5X2	501	
Y508	Y5XX	Y501	
509	5X2	501	
Y509	Y5XX	Y501	
510	5X1	520	UN No. for 5.2
511	5X2	501	
512	5X2	501	
513	5X1	520	UN No. for 5.2
514	5X3	502	
Y514	Y5XY	502	
515	5X3	502	
516	5X2	501	
Y516	Y5XX	Y501	
517	5X2	501	
Y517	Y5XX	501	
518	5X2	501	
519	5X2	501	
523	No change	500	UN No. for 3356

End Result 500, 501, 502, 520, Y501 and Y502

Rationalisation of Packing Instructions - Class 4

Concordance of Packing Instruction Numbers

Existing ICAO No.	Draft No.	Proposed No.	Notes
400	No change	400	P002 UN PP15
Y400	No change	Y400	
401	No change	411	Aligns to UN 411
Y401	No change	Y411	
404	No change	407	Aligns to UN 407
Y404	No change	Y407	
407	No change		
408	4X8		
409	4X8		
410	Not in use	Delete	
411	4X2		
412	4X1/4X16		
413	Not in use	Delete	
414	4X8		
415	4X2		
Y415	Y4X1		
416	4X1/4X2/4X5/ 4X15/4X16		
Y416	Y4X1		
417	4X2		
418	4X2/4X5/4X15/ 4X16		
419	4X2		
Y419	Y4X1		
420	4X2		
421	4X7		
422	4X7		
Y422	Y4X1		
425	4X8		
426	No change		UN 1362
427	4X17		
428	4X17		
429	4X17		
430	4X17		
431	4X8		
432	4X8		
433			
434	4X7		

Y434	**Y4X1**		
435			