



**Committee of Experts on the Transport of Dangerous Goods
and on the Globally Harmonized System of Classification
and Labelling of Chemicals****Sub-Committee of Experts on the Transport of Dangerous Goods****Fifty-fourth session**

Geneva, 26 November-4 December 2018

Item 2 (b) of the provisional agenda

**Recommendations made by the Sub-Committee on its fifty-first,
fifty-second and fifty-third sessions and pending issues
explosives and related matters****Amendments to the list of items assigned to LP101****Transmitted by the expert from the United Kingdom*****Introduction**

1. The expert from the United Kingdom first raised this issue at the fifty-second session of the Sub-Committee through document ST/SG/AC.10/C3/2017/48 which was referred to the Working Group on Explosives. During the discussions in the working group, the expert from Canada expressed some concerns that could not immediately be resolved and the United Kingdom document was withdrawn at that time.

2. In the time between the fifty-second and the fifty-third sessions of the Sub-Committee, the United Kingdom and Canada reconciled their differences and further possible amendments were found. A modified proposal was drafted and this was presented to the meeting of the Working Group on Explosives as informal document INF.24 (fifty-third session). The discussions around this document revealed a possible duplication in the text that could lead to confusion and some points where it was felt that additional explanation would be beneficial. The United Kingdom resolved to consider all these points and to present a revised proposal in time for the next Sub-Committee session.

* In accordance with the programme of work of the Sub-Committee for 2017–2018 approved by the Committee at its eighth session (see ST/SG/AC.10/C.3/100, paragraph 98 and ST/SG/AC.10/44, paragraph 14).

Background

3. As a direct result of a classification test done with a large packaging as an outer packaging the competent authority for explosives in the United Kingdom determined that the package met the criteria for a 1.4S classification. Taking into account the physical nature of the content and the classification they determined that the most appropriate entry in the dangerous goods list was UN 0012.

4. In parallel to the classification tests other samples of the packaging were tested according to the UN requirements for dangerous goods packaging. The packaging met the definition of a large packaging in Chapter 1.2 and was tested in accordance with Chapter 6.6. As a result of passing the tests the competent authority for the packaging designated it as a 50A.

5. At this point the first issue emerged in that UN 0012 has only packing instruction P130 allocated to it and that packing instruction does not include 50A as a permitted packaging. Aware that there were a couple of large packaging instructions specifically for explosives the expert from the United Kingdom investigated further.

6. There are two large packaging packing instructions for explosives: LP101 and LP102. Both of these appear to be intended to be identical to a basic packing instruction except that the outer packagings are coded 50 for large packaging as opposed to the 1 and 4 codes used in the P packing instructions. P134 and LP102 are in exact alignment (see Annex 1) regarding the UN numbers allocated to them. This is not the situation with P130 and LP101 (see Annex 2) where only items in P130 that had special packing provision PP67 were allocated to LP101. PP67 then being duplicated as L1.

7. During the discussions prompted by the earlier documents there was a suggestion that the large packing instruction was only appropriate to those items that could have PP67 or L1 applied to them. Items that did not have the special packing provision applied were not large and robust items and because they were small they did not need a large packaging. The subsequent realisation that PP67 and L1 removed the requirement to use a UN packaging further confused the issue.

Justification

8. Analysis of the data in Annex 2 clearly shows the inconsistencies in the way LP101 has been allocated and misunderstanding of special packing provision PP67. Firstly, with the exception of items in compatibility group F all other divisions and compatibility groups for items not allocated to LP101 are found in LP101. For example UN 0012 is 1.4S and is only allocated P130. UN 0345 is also 1.4S but this has both P130 and LP101. Therefore the classification of an item is not an automatic bar to using a large packaging.

9. UN 0345 has PP67 and L1 so there is the option to go unpackaged if it is large and robust. It may be that the name was the influencing factor in allocating the PP67 in the first place. In this instance PROJECTILES are also classified as 1.1D, 1.2D, 1.2G, 1.3G, 1.4G with PP67 and as 1.1F and 1.2F without. No obvious reason that a 1.1F projectile cannot be large and robust, however it may be that an F classified item does not meet the criteria for being allowed to go unpackaged. However if we accept the argument that a projectile can be a large and robust item then it makes no sense that a large, or a number of large F items cannot be classified and packed in a large packaging.

10. A similar inconsistency is found with ROCKET MOTORS, ROCKETS and ROCKETS LINE THROWING regarding compatibility group F but also the line throwing entries in 1.2G, 1.3G and 1.4G. These 3 are denied a large packaging and yet Ammunition in 1.2G, 1.3G and 1.4G all have large packaging even though the item may be only a rifle sized round. Since large and robust is not defined this cannot be a consideration as to the availability of a large packing instruction.

11. In summary the expert from the United Kingdom believes that the failure to list all the items allocated to P130 to LP101 was an error of omission at the time, particularly as classification is done in conjunction with the packaging to be used in transport.

Proposal

12. Amend the following 35 entries in the dangerous goods list by adding LP101 in column 8 under P130 as a packaging option:

0005, 0007, 0012, 0014, 0033, 0037, 0136, 0167, 0180, 0238, 0240, 0242, 0279,
0291, 0294, 0295, 0324, 0326, 0327, 0330, 0338, 0339, 0348, 0369, 0371, 0413,
0414, 0417, 0426, 0427, 0453, 0457, 0458, 0459, 0460.

13. There are no consequential amendments and the use of large packaging for these explosive items will still be subject to both classification testing and UN large packaging testing.

Annex I

[English only]

Correspondence of P134 and P102

UN No.	Proper Shipping Name	ADR CODE	packing instructions
0070	CUTTERS, CABLE, EXPLOSIVE	1.4S	P134 LP102
0099	FRACTURING DEVICES, EXPLOSIVE	1.1D	P134 LP102
0173	RELEASE DEVICES, EXPLOSIVE	1.4S	P134 LP102
0174	RIVETS, EXPLOSIVE	1.4S	P134 LP102
0204	SOUNDING DEVICES, EXPLOSIVE	1.2F	P134 LP102
0275	CARTRIDGES, POWER DEVICE	1.3C	P134 LP102
0276	CARTRIDGES, POWER DEVICE	1.4C	P134 LP102
0277	CARTRIDGES, OIL WELL	1.3C	P134 LP102
0278	CARTRIDGES, OIL WELL	1.4C	P134 LP102
0296	SOUNDING DEVICES, EXPLOSIVE	1.1F	P134 LP102
0323	CARTRIDGES, POWER DEVICE	1.4S	P134 LP102
0374	SOUNDING DEVICES, EXPLOSIVE	1.1D	P134 LP102
0375	SOUNDING DEVICES, EXPLOSIVE	1.2D	P134 LP102
0381	CARTRIDGES, POWER DEVICE	1.2C	P134 LP102

Annex II

[English only]

Correspondence list P130, LP101, PP67 and L1

UN No.	Proper Shipping Name	CLASS	packing instruction	packing instruction special packing provision
0005	CARTRIDGES FOR WEAPONS	1.1F	P130	
0006	CARTRIDGES FOR WEAPONS	1.1E	P130 LP101	PP67 L1
0007	CARTRIDGES FOR WEAPONS	1.2F	P130	
0009	AMMUNITION, INCENDIARY	1.2G	P130 LP101	PP67 L1
0010	AMMUNITION, INCENDIARY	1.3G	P130 LP101	PP67 L1
0012	CARTRIDGES FOR WEAPONS, INERT PROJECTILE or CARTRIDGES, SMALL ARMS	1.4S	P130	
0014	CARTRIDGES FOR WEAPONS, BLANK or CARTRIDGES, SMALL ARMS, BLANK or CARTRIDGE FOR TOOLS, BLANK	1.4S	P130	
0015	AMMUNITION, SMOKE	1.2G	P130 LP101	PP67 L1
0015	AMMUNITION, SMOKE	1.2G	P130 LP101	PP67 L1
0015	AMMUNITION, SMOKE	1.2G	P130 LP101	PP67 L1
0016	AMMUNITION, SMOKE	1.3G	P130 LP101	PP67 L1
0016	AMMUNITION, SMOKE	1.3G	P130 LP101	PP67 L1
0016	AMMUNITION, SMOKE	1.3G	P130 LP101	PP67 L1
0018	AMMUNITION, TEAR-PRODUCING	1.2G	P130 LP101	PP67 L1
0019	AMMUNITION, TEAR-PRODUCING	1.3G	P130 LP101	PP67 L1
0033	BOMBS	1.1F	P130	
0034	BOMBS	1.1D	P130 LP101	PP67 L1
0035	BOMBS	1.2D	P130 LP101	PP67 L1
0037	BOMBS, PHOTO-FLASH	1.1F	P130	
0038	BOMBS, PHOTO-FLASH	1.1D	P130 LP101	PP67 L1
0039	BOMBS, PHOTO-FLASH	1.2G	P130 LP101	PP67 L1
0048	CHARGES, DEMOLITION	1.1D	P130 LP101	PP67 L1
0056	CHARGES, DEPTH	1.1D	P130 LP101	PP67 L1
0136	MINES	1.1F	P130	
0137	MINES	1.1D	P130 LP101	PP67 L1
0138	MINES	1.2D	P130 LP101	PP67 L1
0167	PROJECTILES	1.1F	P130	
0168	PROJECTILES	1.1D	P130 LP101	PP67 L1
0169	PROJECTILES	1.2D	P130 LP101	PP67 L1
0171	AMMUNITION, ILLUMINATING	1.2G	P130 LP101	PP67 L1
0180	ROCKETS	1.1F	P130	
0181	ROCKETS	1.1E	P130 LP101	PP67 L1

UN No.	Proper Shipping Name	CLASS	packing instruction	packing instruction special packing provision
0005	CARTRIDGES FOR WEAPONS	1.1F	P130	
0182	ROCKETS	1.2E	P130 LP101	PP67 L1
0183	ROCKETS	1.3C	P130 LP101	PP67 L1
0186	ROCKET MOTORS	1.3C	P130 LP101	PP67 L1
0221	WARHEADS, TORPEDO	1.1D	P130 LP101	PP67 L1
0238	ROCKETS, LINE-THROWING	1.2G	P130	
0240	ROCKETS, LINE-THROWING	1.3G	P130	
0242	CHARGES, PROPELLING, FOR CANNON	1.3C	P130	
0243	AMMUNITION, INCENDIARY, WHITE PHOSPHORUS	1.2H	P130 LP101	PP67 L1
0244	AMMUNITION, INCENDIARY, WHITE PHOSPHORUS	1.3H	P130 LP101	PP67 L1
0245	AMMUNITION, SMOKE, WHITE PHOSPHORUS	1.2H	P130 LP101	PP67 L1
0246	AMMUNITION, SMOKE, WHITE PHOSPHORUS	1.3H	P130 LP101	PP67 L1
0254	AMMUNITION, ILLUMINATING	1.3G	P130 LP101	PP67 L1
0279	CHARGES, PROPELLING, FOR CANNON	1.1C	P130	
0280	ROCKET MOTORS	1.1C	P130 LP101	PP67 L1
0281	ROCKET MOTORS	1.2C	P130 LP101	PP67 L1
0286	WARHEADS, ROCKET	1.1D	P130 LP101	PP67 L1
0287	WARHEADS, ROCKET	1.2D	P130 LP101	PP67 L1
0291	BOMBS	1.2F	P130	
0294	MINES	1.2F	P130	
0295	ROCKETS	1.2F	P130	
0297	AMMUNITION, ILLUMINATING	1.4G	P130 LP101	PP67 L1
0299	BOMBS, PHOTO-FLASH	1.3G	P130 LP101	PP67 L1
0300	AMMUNITION, INCENDIARY	1.4G	P130 LP101	PP67 L1
0301	AMMUNITION, TEAR-PRODUCING	1.4G	P130 LP101	PP67 L1
0303	AMMUNITION, SMOKE	1.4G	P130 LP101	PP67 L1
0303	AMMUNITION, SMOKE	1.4G	P130 LP101	PP67 L1
0303	AMMUNITION, SMOKE	1.4G	P130 LP101	PP67 L1
0321	CARTRIDGES FOR WEAPONS	1.2E	P130 LP101	PP67 L1
0324	PROJECTILES	1.2F	P130	
0326	CARTRIDGES FOR WEAPONS, BLANK	1.1C	P130	
0327	CARTRIDGES FOR WEAPONS, BLANK or CARTRIDGES, SMALL ARMS, BLANK	1.3C	P130	
0328	CARTRIDGES FOR WEAPONS, INERT PROJECTILE	1.2C	P130 LP101	PP67 L1
0329	TORPEDOES	1.1E	P130 LP101	PP67 L1

UN No.	Proper Shipping Name	CLASS	packing instruction	packing instruction special packing provision
0005	CARTRIDGES FOR WEAPONS	1.1F	P130	
0330	TORPEDOES	1.1F	P130	
0338	CARTRIDGES FOR WEAPONS, BLANK or CARTRIDGES, SMALL ARMS, BLANK	1.4C	P130	
0339	CARTRIDGES FOR WEAPONS, INERT PROJECTILE or CARTRIDGES, SMALL ARMS	1.4C	P130	
0344	PROJECTILES	1.4D	P130 LP101	PP67 L1
0345	PROJECTILES,	1.4S	P130 LP101	PP67 L1
0346	PROJECTILES	1.2D	P130 LP101	PP67 L1
0347	PROJECTILES	1.4D	P130 LP101	PP67 L1
0348	CARTRIDGES FOR WEAPONS	1.4F	P130	
0362	AMMUNITION, PRACTICE	1.4G	P130 LP101	PP67 L1
0363	AMMUNITION, PROOF	1.4G	P130 LP101	PP67 L1
0369	WARHEADS, ROCKET	1.1F	P130	
0370	WARHEADS, ROCKET	1.4D	P130 LP101	PP67 L1
0371	WARHEADS, ROCKET	1.4F	P130	
0412	CARTRIDGES FOR WEAPONS	1.4E	P130 LP101	PP67 L1
0413	CARTRIDGES FOR WEAPONS, BLANK	1.2C	P130	
0414	CHARGES, PROPELLING, FOR CANNON	1.2C	P130	
0417	CARTRIDGES FOR WEAPONS, INERT PROJECTILE or CARTRIDGES, SMALL ARMS	1.3C	P130	
0424	PROJECTILES,	1.3G	P130 LP101	PP67 L1
0425	PROJECTILES,	1.4G	P130 LP101	PP67 L1
0426	PROJECTILES	1.2F	P130	
0427	PROJECTILES	1.4F	P130	
0434	PROJECTILES	1.2G	P130 LP101	PP67 L1
0435	PROJECTILES	1.4G	P130 LP101	PP67 L1
0436	ROCKETS	1.2C	P130 LP101	PP67 L1
0437	ROCKETS	1.3C	P130 LP101	PP67 L1
0438	ROCKETS	1.4C	P130 LP101	PP67 L1
0451	TORPEDOES	1.1D	P130 LP101	PP67 L1
0453	ROCKETS, LINE-THROWING	1.4G	P130	
0457	CHARGES, BURSTING, PLASTICS BONDED	1.1D	P130	
0458	CHARGES, BURSTING, PLASTICS BONDED	1.2D	P130	
0459	CHARGES, BURSTING, PLASTICS BONDED	1.4D	P130	

UN No.	Proper Shipping Name	CLASS	packing instruction	packing instruction special packing provision
0005	CARTRIDGES FOR WEAPONS	1.1F	P130	
0460	CHARGES, BURSTING, PLASTICS BONDED	1.4S	P130	
0488	AMMUNITION, PRACTICE	1.3G	P130 LP101	PP67 L1
0502	ROCKETS	1.2C	P130 LP101	PP67 L1
0510	ROCKET MOTORS	1.4C	P130 LP101	PP67 L1
