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**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[[1]](#footnote-2)

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expert from Canada expressed some concerns that could not immediately be resolved and the United Kingdom document was withdrawn at that time.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.

Background

1. 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.
2. 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.
3. 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.
4. 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.
5. 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

1. 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.
2. 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.
3. 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.
4. 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

1. 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.

1. 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 without detonator, for oil wells | 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 |
| 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 |
| 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 |  |
| 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 |

1. 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). [↑](#footnote-ref-2)