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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

Forty-sixth session

Geneva, 1 - 9 December 2014 Item 2 (a) of the provisional agenda

Recommendations made by the Sub-Committee on its forty-third, forty-fourth and forty-fifth sessions and pending issues: explosives and related matters

Globally harmonized standard for explosives security markings

Transmitted by the Institute of Makers of Explosives (IME)¹

Summary

In this paper, for certain explosive devices and substances, IME seeks to establish a globally harmonized format for explosives security markings by adding a new Section 1.4.4 to Chapter 1.4 of the Model Regulations.

Introduction

1. At the forty-third session of the Sub-Committee, in informal document INF.18, IME discussed that there is a critical need for successful tracing of recovered explosives, and that the placement of marks on articles and substances of Class 1 based on a globally harmonized marking format would be a critical component of successful tracing globally.

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In accordance with the programme of work of the Sub-Committee for 2013-2014 approved by the Committee at its sixth session (refer to ST/SG/AC.10/C.3/84, para. 86 and ST/SG/AC.10/40, para. 14).

- 2. The Working Group on Explosives (EWG) agreed that a globally harmonized format for marking, most likely based on the European Union format, might be worthwhile.² The Sub-Committee agreed with the EWG and encouraged IME to submit a formal proposal.³
- 3. At the forty-fifth session of the Sub-Committee, a formal proposal was submitted in working paper ST/SG/AC.10/C.3/2014/5 (2014/5). Several experts supported the proposal; however, several questions of principle were raised that IME had not addressed in 2014/5⁴. It was suggested that IME further investigate those questions of principle and address them in an improved proposal at the 46th session of the Sub-Committee.

Discussion

- 4. It is well known that many countries and law enforcement agencies desire to have explosives uniquely identified to facilitate their traceability in the event of loss or theft, or for security purposes. When present, such security markings would assist law enforcement and government officials to determine from where confiscated, discovered, and/or recovered explosives were acquired. Establishing from where in the chain of custody such explosives were acquired may assist these officials in identifying those who may have illicitly obtained such explosives and may aid in reducing the availability of such explosives, thus increasing the overall security of the world from attacks using explosive articles and/or substances.
- 5. Indeed, within the European Union, Directive 2008/43/EC mandates such a marking system. Other countries have also mandated, or have under consideration, requirements for marking, serialization and/or traceability of explosives. These include: Argentina, Australia, Brazil, Canada, China, India, Kazakhstan, Peru, Russian Federation, and the United States of America.
- 6. The result is a proliferation of disparate systems utilizing differing formats of marking for traceability. These disparate systems create unintended consequences. Such disparate systems (1) undermine the ability of countries to trace products that illegally cross national boundaries, (2) needlessly complicate efforts of manufacturers to identify, maintain inventories and record individual lots that are destined for the different countries, and (3) mean that the same marking could have different meanings in different countries defeating the purpose for the marks.
- 7. IME proposes to globally standardize such security markings into a harmonized format so that, when marks are used, interpretation of those markings can be done quickly and efficiently, enabling law enforcement officials to advance their investigations without undue delays. Since almost all Class 1 articles and substances must at some time be transported, the United Nations Recommendations on the Transport of Dangerous Goods, in the form of the Model Regulations, appears to be the most appropriate instrument to enable such harmonized identification information to be adopted universally.
- 8. The structure proposed by IME recognizes that the key information for traceability is the name and location of the manufacturer of the product and a code that can be used to uniquely identify the individual explosive item. This proposal only deals with the format of such a marking and does not advocate any physical or chemical modification of the explosive material contained in the product (chemical or microscopic identifiers or taggants).

² Informal document INF.61/Rev.1, 43rd session, para. 21

³ ST/SG/AC.10/C.3/86, para. 33

⁴ ST/SG/AC.10/C.3/90, paras. 38 – 39

- 9. The format proposed by IME is based on the harmonized system of the European Commission Directive 2008/43/EC (as amended by Directive 2012/4/EU), which is believed to be the most commonly used marking format. Much of global industry has already adopted this format for transport to, within, and through the European Union. Since the proposed marking format simply extends the country identifier beyond that of the European Union, it is believed that such a format would have no impact on markings already being used within the European Union.
- 10. It is IME's hope that those countries outside of the European Union that have already mandated security marking requirements will authorize the proposed format as an acceptable alternative to that which they have already mandated. Additionally, it is hoped that those countries planning to mandate such marking will accept the proposed format as their mandated format or at least as an acceptable alternative. The USA's Bureau Alcohol, Tobacco, Firearms, and Explosives (ATF) has already accepted the EU-based format as an alternative for use in that country. Additionally, Brazil has accepted the format on a case-by-case basis.

Questions of principle and implementation

- 11. As suggested during the forty-fifth session, IME conferred with experts of the Sub-Committee to identify those questions of principle and implementation (issues) that should be addressed before consideration of its proposal. The input received by IME can be described in four categories:
 - (a) Why the Model Regulations?
 - (b) Why not the GHS?
 - (c) Permissive language vs. prescriptive language.
 - (d) Implementation.
- 12. Why the Model Regulations? We know of no other international forum within which to accomplish the goal of a globally harmonized format for the security marking of explosives. The Model Regulations are internationally known and accepted and have a long history of successful global harmonization of requirements that affect the safety and security of explosives during transport. Hence, IME believes that it is the most effective and expedient place to describe such a requirement.

Except for explosives that are manufactured for use in situ (and which are excluded from this proposal), all explosives must, at one time or another, be transported. It is the one common element in the life cycle of explosives. Additionally, it is IME's opinion that explosives are the most vulnerable to theft or diversion for illicit uses during transport. In the broader sense of all dangerous goods, and not just limited to explosives, the Sub-Committee has already recognized and addressed the issue of the security of dangerous goods during transport by developing Chapter 1.4 of the Model Regulations. This chapter provides requirements intended to address security during transport in all modes, and these requirements are "... measures or precautions to be taken to minimize theft or misuse of dangerous goods that may endanger persons or property." By making it easier to trace recovered explosives, it is IME's belief that the presence of security markings on explosives articles and packagings, utilizing a globally harmonized format, are appropriate

Alternative Identification Markings, ATF Explosives Industry Newsletter, January 2014, p. 3 (http://www.atf.gov/publications/newsletters/index.html)

measures that can be taken to discourage and minimize theft or misuse of explosives - a goal that is entirely within the stated purpose of Chapter 1.4 of the Model Regulations.

Specifically, Chapter 1.4 focuses on high consequence dangerous goods and identifies those of most concern in **Table 1.4.1: Indicative list of high consequence dangerous goods**. Table 1.4.1 includes explosives of Division 1.1, 1.2, 1.3C and 1.5 and the Division 1.4 explosives listed in Table 1 on the following page. IME's proposal focuses on this same list of high consequence explosives. Additionally, since the format proposed by IME is based on the harmonized system of EU, in proposed section 1.4.4.2, IME adopts the same exclusions as those in the EU directive.

IME conducted an analysis of the Class 1 entries in the Model Regulations <u>Dangerous Goods List</u> (18th Rev.) to determine which entries would be included in the scope of the proposal and which entries would be excluded. A summary of this analysis is provided in Annex 2. Based on this analysis, IME concluded that there are 373 Class 1 entries in the Dangerous Goods List. Of these 373 entries, 247 entries are covered by Table 1.4.1 and would be candidates for inclusion within the scope of the proposal. Of these 247 entries, 83 entries would be excluded under proposed section 1.4.4.2 (the EU exclusions), leaving 164 entries that are included within the scope of the proposal.

| UN No. | Name and Description | Division |
|---------|--------------------------------------|----------|
| UN 0104 | Cord (fuse), detonating, mild effect | 1.4D |
| UN 0237 | Charges, shaped, flexible, linear | 1.4D |
| UN 0255 | Detonators, electric | 1.4B |
| UN 0267 | Detonators, non-electric | 1.4B |
| UN 0289 | Cord, detonating | 1.4D |
| UN 0361 | Detonator assemblies, non-electric | 1.4B |
| UN 0365 | Detonators for ammunition | 1.4B |
| UN 0366 | Detonators for ammunition | 1.4S |
| UN 0440 | Charges, shaped | 1.4D |
| UN 0441 | Charges, shaped | 1.4S |
| UN 0455 | Detonators, non-electric | 1.4S |
| UN 0456 | Detonators, electric | 1.4S |
| UN 0500 | Detonator assemblies, non-electric | 1.4S |

Table 1
Division 1.4 Explosives Included in
Table 1.4.1: Indicative list of high consequence dangerous goods

(a) The following entries would be included:

UN0004, UN0027, UN0028, UN0029, UN0030, UN0042, UN0043, UN0048, UN0049, UN0059, UN0060, UN0065, UN0072, UN0074, UN0075, UN0076, UN0077, UN0078, UN0079, UN0081, UN0082, UN0083, UN0084, UN0094, UN0099, UN0102, UN0104, UN0106, UN0107, UN0113, UN0114, UN0118, UN0121, UN0124, UN0129, UN0130, UN0132, UN0133, UN0135, UN0143, UN0144, UN0146, UN0147, UN0150, UN0151, UN0153, UN0154, UN0155, UN0159, UN0160, UN0161, UN0204, UN0207, UN0208, UN0209, UN0213, UN0214, UN0215, UN0216, UN0217, UN0218, UN0219, UN0220, UN0222, UN0224, UN0225, UN0226, UN0234, UN0235, UN0236, UN0237, UN0241, UN0242, UN0248, UN0255, UN0266, UN0267, UN0268, UN0271, UN0272, UN0275, UN0277, UN0279, UN0282, UN0283, UN0288, UN0289, UN0290, UN0296, UN0314, UN0331, UN0332, UN0340, UN0341, UN0342, UN0343, UN0354, UN0355, UN0357, UN0358, UN0360, UN0361, UN0374, UN0375, UN0380, UN0381, UN0382, UN0385, UN0386, UN0387, UN0388, UN0389, UN0390, UN0391, UN0392, UN0393, UN0394, UN0401, UN0402, UN0406, UN0408, UN0409, UN0411, UN0414, UN0415, UN0433, UN0439, UN0440, UN0441, UN0442, UN0443, UN0447, UN0455, UN0456, UN0457, UN0458, UN0461, UN0462, UN0463, UN0464, UN0465, UN0466, UN0467, UN0468, UN0469, UN0470, UN0473, UN0474, UN0475, UN0476, UN0477, UN0482, UN0483, UN0484, UN0489, UN0490, UN0495, UN0496, UN0497, UN0498, UN0499, UN0500, UN0504, UN0508

(b) The following entries would be excluded:

UN0005, UN0006, UN0007, UN0009, UN0010, UN0012, UN0014, UN0015, UN0016, UN0018, UN0019, UN0020, UN0021, UN0033, UN0034, UN0035, UN0037, UN0038, UN0039, UN0044, UN0050, UN0054, UN0055, UN0056, UN0066, UN0070, UN0073, UN0092, UN0093, UN0101, UN0103, UN0105, UN0110, UN0131, UN0136, UN0137, UN0138, UN0167, UN0168, UN0169, UN0171, UN0173, UN0174, UN0180, UN0181, UN0182, UN0183, UN0186, UN0190, UN0191, UN0192, UN0193, UN0194, UN0195, UN0196, UN0197, UN0212, UN0221, UN0238, UN0240, UN0243, UN0244, UN0245, UN0246, UN0247, UN0249, UN0250, UN0254, UN0257, UN0276, UN0278, UN0280, UN0281, UN0284, UN0285, UN0286, UN0287, UN0291, UN0292, UN0293, UN0294, UN0295, UN0297, UN0299, UN0300, UN0301, UN0303, UN0305, UN0306, UN0312, UN0313, UN0315, UN0316, UN0317, UN0318, UN0319, UN0320, UN0321, UN0322, UN0323, UN0324, UN0325, UN0326, UN0327, UN0328, UN0329, UN0330, UN0333, UN0334, UN0335, UN0336, UN0337, UN0338, UN0339, UN0344, UN0345, UN0346, UN0347, UN0348, UN0349, UN0350, UN0351, UN0352, UN0353, UN0356, UN0359, UN0362, UN0363, UN0364, UN0365, UN0366, UN0367, UN0368, UN0369, UN0370, UN0371, UN0372, UN0373, UN0376, UN0377, UN0378, UN0379, UN0383, UN0384, UN0395, UN0396, UN0397, UN0398, UN0399, UN0400, UN0403, UN0404, UN0405, UN0407, UN0410, UN0412, UN0413, UN0417, UN0418, UN0419, UN0420, UN0421, UN0424, UN0425, UN0426, UN0427, UN0428, UN0429, UN0430, UN0431, UN0432, UN0434, UN0435, UN0436, UN0437, UN0438, UN0444, UN0445, UN0446, UN0448, UN0449, UN0450, UN0451, UN0452, UN0453, UN0454, UN0459, UN0460, UN0471,

UN0472, UN0478, UN0479, UN0480, UN0481, UN0485, UN0486, UN0487, UN0488, UN0491, UN0492, UN0493, UN0494, UN0501, UN0502, UN0503, UN0505, UN0506, UN0507, UN0509

- 13. Why not the GHS? Since the proposed labeling format affects other activities such as manufacture, storage, and use of explosives, some experts asked if it would be more appropriate that a globally harmonized explosives security marking format be described in the GHS instead of the Model Regulations. Section 1.1.2.1 of the GHS outlines the scope of that document, which is to provide (emphasis added):
 - (a) "harmonized criteria for classifying substances and mixtures according to their health, environmental and physical hazards;" and
 - (b) "harmonized <u>hazard</u> communication elements, including requirements for labelling and safety data sheets."

The scope of the GHS is to provide those persons who handle chemicals with information regarding the hazards associated with handling those chemicals, i.e. the scope deals primarily with occupational health and safety, and not security per se. In fact, the word "security" does not appear even a single time in the GHS document.

The security markings proposed by IME do nothing to communicate such hazards, they merely provide a mechanism to identify those parties that may have possessed explosives that have been lost or stolen and later recovered. Therefore, this proposal falls outside the scope of the GHS.

- 14. Permissive language vs. prescriptive language. In its proposal for the forty-fifth session (2014/5), IME used permissive language rather than the prescriptive language that is used throughout the Model Regulations. Recalling that the formal title of the Model Regulations is (emphasis added), "Recommendations on the Transport of Dangerous Goods, Model Regulations", as IME prepared 2014/5, it believed that the best approach was one of permissive language, consistent with "recommendations". However, IME also recognizes that they are "model regulations", the style of which should be prescriptive. Given comments received from experts at the forty-fifth session and the regulatory nature of the Model Regulations, IME has revised its approach, and the proposal presented in Annex 1 is written in the same prescriptive language that is used throughout Model Regulations.
- 15. <u>Implementation.</u> During our discussions with experts at the 45th Session, as well as in follow-up emails, questions of implementation have arisen. It remains IME's singular intent to establish a globally harmonized explosives security marking format and to leave issues of implementation to those authorities having that responsibility. Implementation issues are complicated, will vary from nation to nation, and even within the EU, remain somewhat unresolved. Therefore, the proposal in Annex 1 does not address implementation issues.

Final considerations and conclusion

- 16. IME is seeking approval of a globally harmonized format for explosives security markings within Chapter 1.4 of the Model Regulations. Since there are already several systems in place and others under development, IME believes that the need for a globally harmonized format is immediate and respectfully requests approval during the current biennium.
- 17. Issues of implementation are largely the concern of nations that adopt a security marking requirement and will vary according to the specific political and practical goals of

implementing nations. IME believes that it is best to leave those issues to the national authorities; however, the Sub-Committee may determine that some global harmonization of implementation principles would be advisable. If that is the case, IME suggests that this work be added to the plan of work for the 2015 - 2016 biennium, and that the important security provision of a globally harmonized format be approved now and not delayed until the next biennium.

- 18. The proposal in Annex 1 is closely aligned with the security provisions of the Model Regulations that address dangerous goods of high consequence, specifically those explosives listed in Table 1.4.1 of Chapter 1.4 of the Model Regulations. Therefore, in Amendment 1 in Annex 1, IME is proposing to limit the use of globally harmonized security markings to those explosives listed in Table 1.4.1, except for those listed items excluded by the EU directives upon which the marking format is based.
- 19. Assuming that the Sub-Committee supports the IME proposal for a globally harmonized format, as described in Annex 1, IME expects that:
 - (a) The format would be adopted by nations that are yet to develop security marking requirements;
 - (b) The format would be adopted, or authorized as an acceptable alternative, by nations that are currently in the process of developing security marking requirements;
 - (c) The format would be adopted, or authorized as an acceptable alternative, by nations that already have security marking requirements in effect;
 - (d) ICAO, IATA, IMO, UNECE would consider inclusion of the requirement, at least in a recommendatory form, in their respective regulations; and
 - (e) In nations where the transport authority is not the authority responsible for explosives security, said transport authority would advise its national security authority and encourage adoption of the requirement.

Proposal

20. The Sub-Committee is requested to add a note to Table 1.4.1 in Chapter 1.4 of the Model Regulations directing the reader to the provisions of a new Section 1.4.4 to be added to Chapter 1.4. The proposed note is shown in "Amendment 1" in Annex 1. Further, the Sub-Committee is requested to add a new section 1.4.4 to Chapter 1.4 of the Model regulations describing the globally harmonized explosives security marking format as shown in "Amendment 2" in Annex 1.

Annex 1

Amendment 1: Renumber the "Note" to Table 1.4.1 in Chapter 1.4 of the Model Regulations to read "Note 1" and add a new note to read as follows:

NOTE 2: In implementing national security provisions, national authorities shall consider requiring security markings for Table 1.4.1 explosives, as described in 1.4.4.

Amendment 2: Add new section 1.4.4 to the Model Regulations:

1.4.4 Security marking requirements for explosives that are listed in Table 1.4.1: Indicative list of high consequence dangerous goods

NOTE: In implementing national security provisions, national authorities shall consider security markings of Class 1 articles or substances to enable traceability, thus enhancing the security of explosives during transport as well as at other times. The provisions of Section 1.4.4 have been developed to aid national authorities in developing a globally harmonized explosives security marking format so that the security markings may be readily and reliably read and understood by those encountering marked explosives.

- 1.4.4.1 Except as provided in 1.4.4.2, Class 1 explosives that are listed in **Table 1.4.1: Indicative list of high consequence dangerous goods** shall not be offered for transport unless, where technically feasible, they bear unique identification marks as prescribed in 1.4.4.3.
- 1.4.4.2 Provisions of 1.4.4.1 do not apply to:
 - (a) Explosives transported and delivered unpackaged or in pump trucks for their direct unloading into blast-holes intended for explosive blasting operations;
 - (b) Explosives manufactured at explosives blast site operations, and loaded for use immediately after being produced (in situ production);
 - (c) Fuses, which are cord-like non-detonating igniting devices;
 - (d) Safety fuses;
 - (e) Cap-type primers;
 - (f) Pyrotechnical articles, which are articles containing explosives substances or an explosive mixture of substances designed to produce heat, light, sound, gas or smoke or a combination of such effects through self-sustained exothermic chemical reactions; and/or
 - (g) Ammunition.

NOTE: Terms not defined above are defined in Appendix B.

- 1.4.4.3 <u>Globally harmonized format for explosives security markings.</u> Security markings for explosives shall comprise of at least the following elements:
- 1.4.4.3.1 A human readable part of the identification mark containing the following:
 - (a) The name of the manufacturer and
 - (b) An alphanumeric code containing:
 - (i) The ISO 3166-1 alpha-2 code indicating the country of production;

- (ii) Three digits identifying the name of the manufacturing site (attributed by the national authority); and
- (iii) The unique product code and logistical information designated by the manufacturer.

NOTE: The three digit code described in 1.4.4.3.1(b)(ii) should be assigned by the competent authority, or the competent authority's designee, in the country of manufacture. The manufacturer site code may be assigned by the competent authority (or designee) of another country, if none is available in the country of manufacture.

1.4.4.3.2 An electronic readable identification mark in barcode and/or matrix code format that relates directly to the alphanumerical identification code, when required by the competent authority or if desired by the manufacturer. The electronic readable identification may include additional code that facilitates access to other product information such as safety and handling instructions.

NOTE: Guidance and recommendations relating to the technical specifications of security markings described in 1.4.4.3.2 may be found in Guidance Note: FEEM European Explosives Code Structure available at www.feem.info.

1.4.4.3.3 Examples of acceptable markings are shown below:



Annex 2 [English only]

Analysis of Coverage of IME Proposal on Existing Class 1 Entries (sorted by Division and Compatibility Group)

| IINI NI- | Name and description | Class | Item on the | Sub-secti | on 1.4.4.2 | Covered | Reason |
|----------|---|-------|--------------------|--------------------|------------------------|----------|----------------|
| UN No. | Name and description | Class | Indicative List | Exclusion Applies? | Exclusion Reference | proposal | not covered |
| UN0190 | SAMPLES, EXPLOSIVE, other than initiating explosive | | | | | N | 1 |
| UN0224 | BARIUM AZIDE, dry or wetted with less than 50% water, by mass | 1.1A | Y | | | Y | |
| UN0074 | DIAZODINITROPHENOL, WETTED with not less than 40% water, or mixture of alcohol and water, by mass | 1.1A | Y | | | Y | |
| UN0113 | GUANYL NITROSAMINO-GUANYLIDENE HYDRAZINE, WETTED with not less than 30% water, by mass | 1.1A | Y | | | Y | |
| UN0114 | GUANYL NITROSAMINO-GUANYLTETRAZENE (TETRAZENE), WETTED with not less than 30% water, or mixture of alcohol and water, by mass | 1.1A | Y | | | Y | |
| UN0129 | LEAD AZIDE, WETTED with not less than 20% water, or mixture of alcohol and water, by mass | 1.1A | Y | | | Y | |
| UN0130 | LEAD STYPHNATE (LEAD TRINITRORESORCINATE), WETTED with not less than 20% water, or mixture of alcohol and water, by mass | 1.1A | Y | | | Y | |
| UN0135 | MERCURY FULMINATE, WETTED with not less than 20% water, or mixture of alcohol and water, by mass | 1.1A | Y | | | Y | |
| UN0473 | SUBSTANCES, EXPLOSIVE, N.O.S. | 1.1A | Y | | | Y | |
| UN0225 | BOOSTERS WITH DETONATOR | 1.1B | Y | | | Y | |
| UN0461 | COMPONENTS, EXPLOSIVE TRAIN, N.O.S. | 1.1B | Y | | | Y | |
| UN0360 | DETONATOR ASSEMBLIES, NON-ELECTRIC for blasting | 1.1B | Y | | | Y | |

| IINI NI - | Name and description | 01 | Item on the | Sub-sect | ion 1.4.4.2 | Covered | Reason not |
|-----------|--|-------|--------------------|--------------------|------------------------|----------|---------------|
| UN No. | Name and description | Class | Indicative List | Exclusion Applies? | Exclusion Reference | proposal | covered |
| UN0073 | DETONATORS FOR AMMUNITION | 1.1B | Y | Y | (g) | N | 2 |
| UN0030 | DETONATORS, ELECTRIC for blasting | 1.1B | Y | | | Y | |
| UN0029 | DETONATORS, NON-ELECTRIC for blasting | 1.1B | Y | | | Y | |
| UN0106 | FUZES, DETONATING | 1.1B | Y | | | Y | |
| UN0377 | PRIMERS, CAP TYPE | 1.1B | Υ | Y | (e) | N | 2 |
| UN0462 | ARTICLES, EXPLOSIVE, N.O.S. | 1.1C | Υ | | | Y | |
| UN0326 | CARTRIDGES FOR WEAPONS, BLANK | 1.1C | Υ | Y | (g) | N | 2 |
| UN0271 | CHARGES, PROPELLING | 1.1C | Y | | | Y | |
| UN0279 | CHARGES, PROPELLING, FOR CANNON | 1.1C | Υ | | | Y | |
| UN0433 | POWDER CAKE (POWDER PASTE), WETTED with not | 1.1C | Y | | | Y | |
| | less than 17% alcohol, by mass | | | | | | |
| UN0160 | POWDER, SMOKELESS | 1.1C | Υ | | | Y | |
| UN0497 | PROPELLANT, LIQUID | 1.1C | Y | | | Y | |
| UN0498 | PROPELLANT, SOLID | 1.1C | Y | | | Y | |
| UN0280 | ROCKET MOTORS | 1.1C | Y | Y | (g) | N | 2 |
| UN0474 | SUBSTANCES, EXPLOSIVE, N.O.S. | 1.1C | Y | | | Y | |
| UN0504 | 1H-TETRAZOLE | 1.1D | Y | | | Y | |
| UN0385 | 5-NITROBENZOTRIAZOL | 1.1D | Y | | | Y | |
| UN0222 | AMMONIUM NITRATE | 1.1D | Υ | | | Y | |
| UN0402 | AMMONIUM PERCHLORATE | 1.1D | Υ | | | Y | |
| UN0004 | AMMONIUM PICRATE dry or wetted with less than 10% | 1.1D | Υ | | | Y | |
| | water, by mass | | | | | | |
| UN0463 | ARTICLES, EXPLOSIVE, N.O.S. | 1.1D | Y | | | Y | |
| UN0028 | BLACK POWDER (GUNPOWDER), COMPRESSED or BLACK POWDER (GUNPOWDER), IN PELLETS | 1.1D | Y | | | Y | |
| UN0027 | BLACK POWDER (GUNPOWDER), IN PELLETS BLACK POWDER (GUNPOWDER), granular or as a | 1.1D | Y | | | Υ | |

1 - Not on the indicative list

| IINI NI- | Name and description | Class | Item on the Indicative List | Sub-secti | on 1.4.4.2 | Covered by proposal | Reason not covered |
|----------|---|-------|--------------------------------------|--------------------|------------------------|---------------------------|--------------------------|
| UN No. | Name and description | | | Exclusion Applies? | Exclusion Reference | | |
| | meal | | | | | | |
| UN0034 | BOMBS with bursting charge | 1.1D | Υ | Υ | (g) | N | 2 |
| UN0038 | BOMBS, PHOTO-FLASH | 1.1D | Υ | Υ | (g) | N | 2 |
| UN0042 | BOOSTERS without detonator | 1.1D | Y | | | Υ | |
| UN0043 | BURSTERS, explosive | 1.1D | Υ | | | Y | |
| UN0457 | CHARGES, BURSTING, PLASTICS BONDED | 1.1D | Y | | | Y | |
| UN0048 | CHARGES, DEMOLITION | 1.1D | Y | | | Y | |
| UN0056 | CHARGES, DEPTH | 1.1D | Υ | Υ | (g) | N | 2 |
| UN0442 | CHARGES, EXPLOSIVE, COMMERCIAL without detonator | 1.1D | Y | | | Y | |
| UN0059 | CHARGES, SHAPED without detonator | 1.1D | Y | | | Υ | |
| UN0288 | CHARGES, SHAPED, FLEXIBLE, LINEAR | 1.1D | Y | | | Y | |
| UN0060 | CHARGES, SUPPLEMENTARY, EXPLOSIVE | 1.1D | Y | | | Y | |
| UN0290 | CORD (FUSE), DETONATING, metal clad | 1.1D | Y | | | Y | |
| UN0065 | CORD, DETONATING, flexible | 1.1D | Y | | | Y | |
| UN0484 | CYCLOTETRAMETHYLENE-TETRANITRAMINE (HMX; OCTOGEN), DESENSITIZED | 1.1D | Y | | | Y | |
| UN0226 | CYCLOTETRAMETHYLENE-TETRANITRAMINE (HMX; OCTOGEN), WETTED with not less than 15% water, by mass | 1.1D | Y | | | Y | |

| LINI NI. | Name and description | Olean | Item on the | Sub-secti | on 1.4.4.2 | Covered | Reason not |
|----------|---|-------|--------------------|--------------------|------------------------|----------------|---------------|
| UN No. | Name and description | Class | Indicative List | Exclusion Applies? | Exclusion Reference | by proposal | covered |
| UN0391 | CYCLOTRIMETHYLENE-TRINITRAMINE (CYCLONITE; HEXOGEN; RDX) AND CYCLOTETRAMETHYLENE-TETRANITRAMINE (HMX; OCTOGEN) MIXTURE, WETTED with not less than 15% water, by mass or CYCLOTRIMETHYLENE-TRINITRAMINE (CYCLONITE; HEXOGEN; RDX) AND CYCLOTETRAMETHYLENE-TETRANITRAMINE (HMX; OCTOGEN) MIXTURE, DESENSITIZED with not less than 10% phlegmatizer, by mass | 1.1D | Y | | | Y | |
| UN0483 | CYCLOTRIMETHYLENE-TRINITRAMINE (CYCLONITE; HEXOGEN; RDX), DESENSITIZED | 1.1D | Υ | | | Y | |
| UN0072 | CYCLOTRIMETHYLENE-TRINITRAMINE (CYCLONITE; HEXOGEN; RDX), WETTED with not less than 15% water, by mass | 1.1D | Y | | | Y | |
| UN0075 | DIETHYLENEGLYCOL DINITRATE, DESENSITIZED with not less than 25% non-volatile, water-insoluble phlegmatizer, by mass | 1.1D | Y | | | Y | |
| UN0489 | DINITROGLYCOLURIL (DINGU) | 1.1D | Υ | | | Υ | |
| UN0076 | DINITROPHENOL, dry or wetted with less than 15% water, by mass | 1.1D | Y | | | Y | |
| UN0078 | DINITRORESORCINOL, dry or wetted with less than 15% water, by mass | 1.1D | Y | | | Y | |
| UN0401 | DIPICRYL SULPHIDE, dry or wetted with less than 10% water, by mass | 1.1D | Y | | | Y | |
| UN0081 | EXPLOSIVE, BLASTING, TYPE A | 1.1D | Y | | | Y | |
| UN0082 | EXPLOSIVE, BLASTING, TYPE B | 1.1D | Y | | | Y | |
| UN0083 | EXPLOSIVE, BLASTING, TYPE C | 1.1D | Y | | | Υ | |

1 - Not on the indicative list

| UN No. | Name and description | Class | Item on the | Sub-secti | on 1.4.4.2 | Covered | Reason not |
|--------|--|-------|--------------------|--------------------|------------------------|----------|---------------|
| UN NO. | Name and description | Class | Indicative List | Exclusion Applies? | Exclusion Reference | proposal | covered |
| UN0084 | EXPLOSIVE, BLASTING, TYPE D | 1.1D | Y | | | Y | |
| UN0241 | EXPLOSIVE, BLASTING, TYPE E | 1.1D | Y | | | Y | |
| UN0099 | FRACTURING DEVICES, EXPLOSIVE without detonator, for oil wells | 1.1D | Y | | | Y | |
| UN0408 | FUZES, DETONATING with protective features | 1.1D | Y | | | Y | |
| UN0284 | GRENADES, hand or rifle, with bursting charge | 1.1D | Y | Υ | (g) | N | 2 |
| UN0079 | HEXANITRODIPHENYLAMINE (DIPICRYLAMINE; HEXYL) | 1.1D | Y | | | Y | |
| UN0392 | HEXANITROSTILBENE | 1.1D | Y | | | Y | |
| UN0118 | HEXOLITE (HEXOTOL), dry or wetted with less than 15% water, by mass | 1.1D | Y | | | Y | |
| UN0393 | HEXOTONAL | 1.1D | Y | | | Y | |
| UN0124 | JET PERFORATING GUNS, CHARGED, oil well, without detonator | 1.1D | Y | | | Y | |
| UN0133 | MANNITOL HEXANITRATE (NITROMANNITE), WETTED with not less than 40% water, or mixture of alcohol and water, by mass | 1.1D | Y | | | Y | |
| UN0137 | MINES with bursting charge | 1.1D | Y | Υ | (g) | N | 2 |
| UN0147 | | 1.1D | Y | | | Y | |
| UN0340 | NITROCELLULOSE, dry or wetted with less than 25% water (or alcohol), by mass | 1.1D | Y | | | Y | |
| UN0341 | NITROCELLULOSE, unmodified or plasticized with less than 18% plasticizing substance, by mass | 1.1D | Y | | | Y | |
| UN0144 | NITROGLYCERIN SOLUTION IN ALCOHOL with more than 1% but not more than 10% nitroglycerin | 1.1D | Y | | | Y | |
| UN0143 | NITROGLYCERIN, DESENSITIZED with not less than 40% non-volatile water-insoluble phlegmatizer, by mass | 1.1D | Y | | | Y | |

1 - Not on the indicative list

| LINI NI- | Name and decaringing | Class | Item on the | Sub-secti | on 1.4.4.2 | Covered by | Reason not |
|----------|--|-------|--------------------|--------------------|------------------------|------------|---------------|
| UN No. | Name and description | Class | Indicative List | Exclusion Applies? | Exclusion Reference | proposal | covered |
| UN0282 | NITROGUANIDINE (PICRITE), dry or wetted with less than 20% water, by mass | 1.1D | Y | | | Y | |
| UN0146 | NITROSTARCH, dry or wetted with less than 20% water, by mass | 1.1D | Y | | | Y | |
| UN0490 | NITROTRIAZOLONE (NTO) | 1.1D | Υ | | | Y | |
| UN0266 | OCTOLITE (OCTOL), dry or wetted with less than 15% water, by mass | 1.1D | Y | | | Y | |
| UN0496 | OCTONAL | 1.1D | Y | | | Y | |
| UN0411 | (PENTAERYTHRITOL TETRANITRATE; PETN) with not less than 7% wax, by mass | 1.1D | Y | | | Y | |
| UN0150 | PENTAERYTHRITE TETRANITRATE (PENTAERYTHRITOL TETRANITRATE; PETN), WETTED with not less than 25% water, by mass, or PENTAERYTHRITE TETRANITRATE (PENTAERYTHRITOL TETRANITRATE; PETN), DESENSITIZED with not less than 15% phlegmatizer, by mass | 1.1D | Y | | | Y | |
| UN0151 | PENTOLITE, dry or wetted with less than 15% water, by mass | 1.1D | Y | | | Y | |
| UN0168 | PROJECTILES with bursting charge | 1.1D | Υ | Y | (g) | N | 2 |
| UN0374 | SOUNDING DEVICES, EXPLOSIVE | 1.1D | Υ | | | Y | |
| UN0475 | SUBSTANCES, EXPLOSIVE, N.O.S. | 1.1D | Y | | | Y | |
| UN0207 | TETRANITROANILINE | 1.1D | Y | | | Y | |
| UN0451 | TORPEDOES with bursting charge | 1.1D | Y | Y | (g) | N | 2 |
| UN0153 | / | 1.1D | Y | | | Y | |
| UN0213 | TRINITROANISOLE | 1.1D | Y | | | Y | |

1 - Not on the indicative list

15

| UN No. | Name and decorrection | 01 | Item on the | Sub-sect | ion 1.4.4.2 | Covered | Reason not |
|--------|--|-------|--------------------|--------------------|------------------------|----------|---------------|
| UN NO. | Name and description | Class | Indicative List | Exclusion Applies? | Exclusion Reference | proposal | covered |
| UN0214 | TRINITROBENZENE, dry or wetted with less than 30% water, by mass | 1.1D | Y | | | Y | |
| UN0386 | TRINITROBENZENE-SULPHONIC ACID | 1.1D | Y | | | Y | |
| UN0215 | TRINITROBENZOIC ACID, dry or wetted with less than 30% water, by mass | 1.1D | Y | | | Y | |
| UN0155 | TRINITROCHLOROBENZENE (PICRYL CHLORIDE) | 1.1D | Y | | | Y | |
| UN0387 | TRINITROFLUORENONE | 1.1D | Y | | | Y | |
| UN0216 | TRINITRO-m-CRESOL | 1.1D | Y | | | Y | |
| UN0217 | TRINITRONAPHTHALENE | 1.1D | Y | | | Y | |
| UN0218 | TRINITROPHENETOLE | 1.1D | Y | | | Y | |
| UN0154 | TRINITROPHENOL (PICRIC ACID), dry or wetted with less than 30% water, by mass | 1.1D | Y | | | Y | |
| UN0208 | TRINITROPHENYLMETHYL-NITRAMINE (TETRYL) | 1.1D | Y | | | Υ | |
| UN0219 | TRINITRORESORCINOL (STYPHNIC ACID), dry or wetted with less than 20% water, or mixture of alcohol and water, by mass | 1.1D | Y | | | Y | |
| UN0394 | TRINITRORESORCINOL (STYPHNIC ACID), WETTED with not less than 20% water, or mixture of alcohol and water, by mass | 1.1D | Y | | | Y | |
| UN0388 | TRINITROTOLUENE (TNT) AND TRINITROBENZENE MIXTURE or TRINITROTOLUENE (TNT) AND HEXANITROSTILBENE MIXTURE | 1.1D | Y | | | Y | |
| UN0389 | TRINITROTOLUENE (TNT) MIXTURE CONTAINING TRINITROBENZENE AND HEXANITROSTILBENE | 1.1D | Y | | | Y | |
| UN0209 | TRINITROTOLUENE (TNT), dry or wetted with less than 30% water, by mass | 1.1D | Y | | | Y | |
| UN0390 | TRITONAL | 1.1D | Y | | | Υ | |

1 - Not on the indicative list

| | Name and Landers | 01 | Item on the | Sub-secti | on 1.4.4.2 | Covered | Reason not covered |
|--------|---|-------|--------------------|--------------------|------------------------|----------------|--------------------------|
| UN No. | Name and description | Class | Indicative List | Exclusion Applies? | Exclusion Reference | by proposal | |
| UN0220 | UREA NITRATE, dry or wetted with less than 20% water, by mass | 1.1D | Y | | | Υ | |
| UN0286 | WARHEADS, ROCKET with bursting charge | 1.1D | Υ | Y | (g) | N | 2 |
| UN0221 | WARHEADS, TORPEDO with bursting charge | 1.1D | Y | Υ | (g) | N | 2 |
| UN0464 | ARTICLES, EXPLOSIVE, N.O.S. | 1.1E | Y | | | Υ | |
| UN0006 | CARTRIDGES FOR WEAPONS with bursting charge | 1.1E | Y | Y | (g) | N | 2 |
| UN0181 | ROCKETS with bursting charge | 1.1E | Y | Y | (g) | N | 2 |
| UN0329 | TORPEDOES with bursting charge | 1.1E | Y | Y | (g) | N | 2 |
| UN0465 | ARTICLES, EXPLOSIVE, N.O.S. | 1.1F | Y | | | Υ | |
| UN0033 | BOMBS with bursting charge | 1.1F | Y | Y | (g) | N | 2 |
| UN0037 | BOMBS, PHOTO-FLASH | 1.1F | Υ | Υ | (g) | N | 2 |
| UN0005 | CARTRIDGES FOR WEAPONS with bursting charge | 1.1F | Y | Υ | (g) | N | 2 |
| UN0292 | GRENADES, hand or rifle, with bursting charge | 1.1F | Y | Υ | (g) | N | 2 |
| UN0136 | MINES with bursting charge | 1.1F | Υ | Y | (g) | N | 2 |
| UN0167 | PROJECTILES with bursting charge | 1.1F | Y | Υ | (g) | N | 2 |
| UN0180 | ROCKETS with bursting charge | 1.1F | Y | Υ | (g) | N | 2 |
| UN0296 | SOUNDING DEVICES, EXPLOSIVE | 1.1F | Υ | | | Y | |
| UN0330 | TORPEDOES with bursting charge | 1.1F | Y | Υ | (g) | N | 2 |
| UN0369 | WARHEADS, ROCKET with bursting charge | 1.1F | Y | Υ | (g) | N | 2 |
| UN0428 | ARTICLES, PYROTECHNIC for technical purposes | 1.1G | Y | Υ | (f) | N | 2 |
| UN0049 | CARTRIDGES, FLASH | 1.1G | Y | | | Y | |
| UN0333 | FIREWORKS | 1.1G | Y | Y | (f) | N | 2 |
| UN0420 | FLARES, AERIAL | 1.1G | Υ | Υ | (f) | N | 2 |
| UN0418 | FLARES, SURFACE | 1.1G | Υ | Υ | (f) | N | 2 |
| UN0094 | FLASH POWDER | 1.1G | Y | | | Y | |
| UN0121 | IGNITERS | 1.1G | Y | | | Y | |

1 - Not on the indicative list

17

| LINIAL | None and description | Olasa | Item on the | Sub-secti | on 1.4.4.2 | Covered | Reason not |
|--------|---|-------|--------------------|--------------------|------------------------|----------|---------------|
| UN No. | Name and description | Class | Indicative List | Exclusion Applies? | Exclusion Reference | proposal | covered |
| UN0194 | SIGNALS, DISTRESS, ship | 1.1G | Y | Y | (f) | N | 2 |
| UN0192 | SIGNALS, RAILWAY TRACK, EXPLOSIVE | 1.1G | Y | Y | (f) | N | 2 |
| UN0196 | SIGNALS, SMOKE | 1.1G | Y | Y | (f) | N | 2 |
| UN0476 | SUBSTANCES, EXPLOSIVE, N.O.S. | 1.1G | Y | | | Y | |
| UN0399 | BOMBS WITH FLAMMABLE LIQUID with bursting charge | 1.1J | Y | Y | (g) | N | 2 |
| UN0397 | ROCKETS, LIQUID FUELLED with bursting charge | 1.1J | Υ | Y | (g) | N | 2 |
| UN0449 | TORPEDOES, LIQUID FUELLED with or without bursting charge | 1.1J | Y | Y | (g) | N | 2 |
| UN0354 | ARTICLES, EXPLOSIVE, N.O.S. | 1.1L | Υ | | | Y | |
| UN0357 | SUBSTANCES, EXPLOSIVE, N.O.S. | 1.1L | Υ | | | Υ | |
| UN0268 | BOOSTERS WITH DETONATOR | 1.2B | Y | | | Y | |
| UN0382 | COMPONENTS, EXPLOSIVE TRAIN, N.O.S. | 1.2B | Y | | | Y | |
| UN0364 | DETONATORS FOR AMMUNITION | 1.2B | Υ | Υ | (g) | N | 2 |
| UN0107 | FUZES, DETONATING | 1.2B | Y | | | Y | |
| UN0466 | ARTICLES, EXPLOSIVE, N.O.S. | 1.2C | Υ | | | Y | |
| UN0413 | CARTRIDGES FOR WEAPONS, BLANK | 1.2C | Υ | Y | (g) | N | 2 |
| UN0328 | CARTRIDGES FOR WEAPONS, INERT PROJECTILE | 1.2C | Y | Y | (g) | N | 2 |
| UN0381 | CARTRIDGES, POWER DEVICE | 1.2C | Υ | | | Y | |
| UN0415 | CHARGES, PROPELLING | 1.2C | Y | | | Y | |
| UN0414 | CHARGES, PROPELLING, FOR CANNON | 1.2C | Y | | | Y | |
| UN0281 | ROCKET MOTORS | 1.2C | Y | Y | (g) | N | 2 |
| UN0436 | ROCKETS with expelling charge | 1.2C | Y | Y | (g) | N | 2 |
| UN0502 | ROCKETS with inert head | 1.2C | Y | Y | (g) | N | 2 |
| UN0467 | ARTICLES, EXPLOSIVE, N.O.S. | 1.2D | Y | | | Y | |
| UN0035 | BOMBS with bursting charge | 1.2D | Y | Y | (g) | N | 2 |
| UN0283 | | 1.2D | Υ | | | Y | |
| UN0458 | CHARGES, BURSTING, PLASTICS BONDED | 1.2D | Y | | | Y | |

1 - Not on the indicative list

2 – Excluded by proposed section 1.4.4.2

Color codes:

| UN No. | Name and description | Class | Item on the | Sub-secti | on 1.4.4.2 | Covered by | Reason not |
|--------|---|-------|--------------------|--------------------|------------------------|------------|---------------|
| UN NO. | Name and description | Class | Indicative List | Exclusion Applies? | Exclusion Reference | proposal | covered |
| UN0443 | CHARGES, EXPLOSIVE, COMMERCIAL without detonator | 1.2D | Y | | | Υ | |
| UN0439 | CHARGES, SHAPED, without detonator | 1.2D | Y | | | Y | |
| UN0102 | CORD (FUSE), DETONATING, metal clad | 1.2D | Y | | | Y | |
| UN0409 | FUZES, DETONATING with protective features | 1.2D | Y | | | Y | |
| UN0285 | GRENADES, hand or rifle, with bursting charge | 1.2D | Υ | Y | (g) | N | 2 |
| UN0138 | MINES with bursting charge | 1.2D | Y | Υ | (g) | N | 2 |
| UN0346 | | 1.2D | Y | Y | (g) | N | 2 |
| UN0169 | PROJECTILES with bursting charge | 1.2D | Y | Υ | (g) | N | 2 |
| UN0375 | SOUNDING DEVICES, EXPLOSIVE | 1.2D | Y | | | Y | |
| UN0287 | WARHEADS, ROCKET with bursting charge | 1.2D | Υ | Υ | (g) | N | 2 |
| UN0468 | ARTICLES, EXPLOSIVE, N.O.S. | 1.2E | Y | | | Y | |
| UN0321 | CARTRIDGES FOR WEAPONS with bursting charge | 1.2E | Y | Y | (g) | N | 2 |
| UN0182 | ROCKETS with bursting charge | 1.2E | Y | Y | (g) | N | 2 |
| UN0469 | ARTICLES, EXPLOSIVE, N.O.S. | 1.2F | Υ | | | Y | |
| UN0291 | BOMBS with bursting charge | 1.2F | Y | Y | (g) | N | 2 |
| UN0007 | CARTRIDGES FOR WEAPONS with bursting charge | 1.2F | Y | Y | (g) | N | 2 |
| UN0293 | GRENADES, hand or rifle, with bursting charge | 1.2F | Y | Υ | (g) | N | 2 |
| UN0294 | MINES with bursting charge | 1.2F | Y | Υ | (g) | N | 2 |
| UN0426 | PROJECTILES with burster or expelling charge | 1.2F | Y | Y | (g) | N | 2 |
| UN0324 | PROJECTILES with bursting charge | 1.2F | Y | Y | (g) | N | 2 |
| UN0295 | ROCKETS with bursting charge | 1.2F | Y | Y | (g) | N | 2 |
| UN0204 | SOUNDING DEVICES, EXPLOSIVE | 1.2F | Y | | | Y | |
| UN0171 | AMMUNITION, ILLUMINATING with or without burster, expelling charge or propelling charge | 1.2G | Y | Y | (g) | N | 2 |

1 - Not on the indicative list

| IINI NI- | Name and description | Class | Item on the | Sub-secti | on 1.4.4.2 | Covered | Reason |
|----------|--|-------|--------------------|--------------------|------------------------|----------------|----------------|
| UN No. | Name and description | Class | Indicative List | Exclusion Applies? | Exclusion Reference | by proposal | not covered |
| UN0009 | AMMUNITION, INCENDIARY with or without burster, expelling charge or propelling charge | 1.2G | Y | Y | (g) | N | 2 |
| UN0015 | AMMUNITION, SMOKE with or without burster, expelling charge or propelling charge | 1.2G | Y | Y | (g) | N | 2 |
| UN0018 | AMMUNITION, TEAR-PRODUCING with burster, expelling charge or propelling charge | 1.2G | Y | Y | (g) | N | 2 |
| UN0429 | ARTICLES, PYROTECHNIC for technical purposes | 1.2G | Υ | Υ | (f) | N | 2 |
| UN0039 | BOMBS, PHOTO-FLASH | 1.2G | Y | Υ | (g) | N | 2 |
| UN0334 | FIREWORKS | 1.2G | Y | Υ | (f) | N | 2 |
| UN0421 | FLARES, AERIAL | 1.2G | Y | Υ | (f) | N | 2 |
| UN0419 | FLARES, SURFACE | 1.2G | Y | Y | (f) | N | 2 |
| UN0372 | GRENADES, PRACTICE, hand or rifle | 1.2G | Y | Υ | (g) | N | 2 |
| UN0314 | IGNITERS | 1.2G | Y | | | Y | |
| UN0434 | PROJECTILES with burster or expelling charge | 1.2G | Y | Y | (g) | N | 2 |
| UN0238 | ROCKETS, LINE-THROWING | 1.2G | Υ | Y | (g) | N | 2 |
| UN0313 | SIGNALS, SMOKE | 1.2G | Υ | Y | (f) | N | 2 |
| UN0243 | AMMUNITION, INCENDIARY, WHITE PHOSPHORUS with burster, expelling charge or propelling charge | 1.2H | Y | Y | (g) | N | 2 |
| UN0245 | AMMUNITION, SMOKE, WHITE PHOSPHORUS with burster, expelling charge or propelling charge | 1.2H | Y | Y | (g) | N | 2 |
| UN0400 | BOMBS WITH FLAMMABLE LIQUID with bursting charge | 1.2J | Y | Y | (g) | N | 2 |
| UN0395 | ROCKET MOTORS, LIQUID FUELLED | 1.2J | Y | Υ | (g) | N | 2 |
| UN0398 | ROCKETS, LIQUID FUELLED with bursting charge | 1.2J | Y | Υ | (g) | N | 2 |
| UN0020 | AMMUNITION, TOXIC with burster, expelling charge or propelling charge | 1.2K | Y | Y | (g) | N | 2 |
| UN0355 | ARTICLES, EXPLOSIVE, N.O.S. | 1.2L | Υ | | | Υ | |
| UN0380 | ARTICLES, PYROPHORIC | 1.2L | Y | | | Υ | |

1 - Not on the indicative list

2 – Excluded by proposed section 1.4.4.2

Color codes:

Yellow highlight = item excluded by proposed section 1.4.4.2

Red text = item on the indicative list

| LINI NI - | Name and description | Class | Item on the | Sub-section 1.4.4.2 | | Covered | Reason not |
|-----------|--|-------|--------------------|---------------------|------------------------|----------------|---------------|
| UN No. | Name and description | Class | Indicative List | Exclusion Applies? | Exclusion Reference | by proposal | covered |
| UN0248 | CONTRIVANCES, WATER-ACTIVATED with burster, expelling charge or propelling charge | 1.2L | Y | | | Υ | |
| UN0322 | ROCKET MOTORS WITH HYPERGOLIC LIQUIDS with or without expelling charge | 1.2L | Y | Y | (g) | N | 2 |
| UN0358 | SUBSTANCES, EXPLOSIVE, N.O.S. | 1.2L | Υ | | | Υ | |
| UN0508 | 1-HYDROXYBENZOTRIAZOLE, ANHYDROUS, dry or wetted with less than 20% water, by mass | 1.3C | Y | | | Y | |
| UN0470 | ARTICLES, EXPLOSIVE, N.O.S. | 1.3C | Υ | | | Y | |
| UN0327 | CARTRIDGES FOR WEAPONS, BLANK or CARTRIDGES, SMALL ARMS, BLANK | 1.3C | Y | Y | (g) | N | 2 |
| UN0417 | CARTRIDGES FOR WEAPONS, INERT PROJECTILE or CARTRIDGES, SMALL ARMS | 1.3C | Y | Y | (g) | N | 2 |
| UN0277 | CARTRIDGES, OIL WELL | 1.3C | Y | | | Y | |
| UN0275 | CARTRIDGES, POWER DEVICE | 1.3C | Y | | | Y | |
| UN0447 | CASES, COMBUSTIBLE, EMPTY, WITHOUT PRIMER | 1.3C | Υ | | | Y | |
| UN0272 | , | 1.3C | Υ | | | Y | |
| UN0242 | CHARGES, PROPELLING, FOR CANNON | 1.3C | Υ | | | Y | |
| UN0132 | DEFLAGRATING METAL SALTS OF AROMATIC NITRODERIVATIVES, N.O.S. | 1.3C | Y | | | Y | |
| UN0077 | DINITROPHENOLATES, alkali metals, dry or wetted with less than 15% water, by mass | 1.3C | Y | | | Y | |
| UN0406 | DINITROSOBENZENE | 1.3C | Υ | | | Υ | |
| UN0343 | NITROCELLULOSE, PLASTICIZED with not less than 18% plasticizing substance, by mass | 1.3C | Y | | | Y | |
| UN0342 | NITROCELLULOSE, WETTED with not less than 25% alcohol, by mass | 1.3C | Y | | | Y | |

1 - Not on the indicative list

| LINING | Name and description | Olasa | Item on the | Sub-secti | on 1.4.4.2 | Covered by proposal | Reason not covered |
|---------------|---|-------|--------------------|--------------------|------------------------|---------------------------|--------------------------|
| UN No. | Name and description | Class | Indicative List | Exclusion Applies? | Exclusion Reference | | |
| UN0159 | POWDER CAKE (POWDER PASTE), WETTED with not less than 25% water, by mass | 1.3C | Y | | | Y | |
| UN0161 | POWDER, SMOKELESS | 1.3C | Y | | | Y | |
| UN0495 | PROPELLANT, LIQUID | 1.3C | Y | | | Y | |
| UN0499 | PROPELLANT, SOLID | 1.3C | Y | | | Y | |
| <u>UN0186</u> | ROCKET MOTORS | 1.3C | Υ | Υ | (g) | N | 2 |
| UN0437 | ROCKETS with expelling charge | 1.3C | Y | Y | (g) | N | 2 |
| UN0183 | ROCKETS with inert head | 1.3C | Υ | Υ | (g) | N | 2 |
| UN0234 | SODIUM DINITRO-o-CRESOLATE, dry or wetted with less than 15% water, by mass | 1.3C | Y | | | Y | |
| UN0235 | SODIUM PICRAMATE, dry or wetted with less than 20% water, by mass | 1.3C | Y | | | Y | |
| UN0477 | SUBSTANCES, EXPLOSIVE, N.O.S. | 1.3C | Y | | | Y | |
| UN0236 | ZIRCONIUM PICRAMATE, dry or wetted with less than 20% water, by mass | 1.3C | Y | | | Y | |
| UN0254 | AMMUNITION, ILLUMINATING with or without burster, expelling charge or propelling charge | 1.3G | | Y | (g) | N | 1,2 |
| UN0010 | AMMUNITION, INCENDIARY with or without burster, expelling charge or propelling charge | 1.3G | | Y | (g) | N | 1,2 |
| UN0488 | AMMUNITION, PRACTICE | 1.3G | | Y | (g) | N | 1,2 |
| UN0016 | AMMUNITION, SMOKE with or without burster, expelling charge or propelling charge | 1.3G | | Y | (g) | N | 1,2 |
| UN0019 | AMMUNITION, TEAR-PRODUCING with burster, expelling charge or propelling charge | 1.3G | | Y | (g) | N | 1,2 |
| UN0430 | ARTICLES, PYROTECHNIC for technical purposes | 1.3G | | Υ | (f) | N | 1,2 |
| UN0299 | BOMBS, PHOTO-FLASH | 1.3G | | Υ | (g) | N | 1,2 |
| UN0050 | CARTRIDGES, FLASH | 1.3G | | | | N | 1 |
| UN0054 | CARTRIDGES, SIGNAL | 1.3G | | Υ | (f) | N | 1,2 |

1 - Not on the indicative list

2 – Excluded by proposed section 1.4.4.2

Color codes:

Yellow highlight = item excluded by proposed section 1.4.4.2

Red text = item on the indicative list

| LINI NI- | Name and decarintian | Class | Item on the | Sub-secti | on 1.4.4.2 | Covered | Reason |
|----------|--|-------|--------------------|--------------------|------------------------|----------------|----------------|
| UN No. | Name and description | Class | Indicative List | Exclusion Applies? | Exclusion Reference | by proposal | not covered |
| UN0335 | FIREWORKS | 1.3G | | Y | (f) | N | 1,2 |
| UN0093 | FLARES, AERIAL | 1.3G | | Y | (f) | N | 1,2 |
| UN0092 | FLARES, SURFACE | 1.3G | | Y | (f) | N | 1,2 |
| UN0305 | FLASH POWDER | 1.3G | | | | N | 1 |
| UN0101 | FUSE, NON-DETONATING | 1.3G | | Y | (c) | N | 1,2 |
| UN0316 | FUZES, IGNITING | 1.3G | | | | N | 1 |
| UN0318 | GRENADES, PRACTICE, hand or rifle | 1.3G | | Y | (g) | N | 1,2 |
| UN0315 | IGNITERS | 1.3G | | | | N | 1 |
| UN0319 | PRIMERS, TUBULAR | 1.3G | | | | N | 1 |
| UN0424 | PROJECTILES, inert with tracer | 1.3G | | Y | (g) | N | 1,2 |
| UN0240 | ROCKETS, LINE-THROWING | 1.3G | | Y | (g) | N | 1,2 |
| UN0195 | SIGNALS, DISTRESS, ship | 1.3G | | Y | (f) | N | 1,2 |
| UN0492 | SIGNALS, RAILWAY TRACK, EXPLOSIVE | 1.3G | | Y | (f) | N | 1,2 |
| UN0487 | SIGNALS, SMOKE | 1.3G | | Y | (f) | N | 1,2 |
| UN0478 | SUBSTANCES, EXPLOSIVE, N.O.S. | 1.3G | | | | N | 1 |
| UN0212 | TRACERS FOR AMMUNITION | 1.3G | | | | N | 1 |
| UN0244 | AMMUNITION, INCENDIARY, WHITE PHOSPHORUS | 1.3H | | Y | (g) | N | 1,2 |
| | with burster, expelling charge or propelling charge | | | | | | |
| UN0246 | AMMUNITION, SMOKE, WHITE PHOSPHORUS with | 1.3H | | Υ | (g) | N | 1,2 |
| | burster, expelling charge or propelling charge | | | | | | |
| UN0247 | AMMUNITION, INCENDIARY, liquid or gel, with burster, | 1.3J | | Υ | (g) | N | 1,2 |
| | expelling charge or propelling charge | | | | | | |
| UN0396 | ROCKET MOTORS, LIQUID FUELLED | 1.3J | | Y | (g) | N | 1,2 |
| UN0450 | TORPEDOES, LIQUID FUELLED with inert head | 1.3J | | | (g) | N | 1,2 |
| UN0021 | AMMUNITION, TOXIC with burster, expelling charge or | 1.3K | | Y | (g) | N | 1,2 |
| | propelling charge | | | | | | |

1 - Not on the indicative list

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| UN No. | Name and description | Class | Item on the | Sub-secti | ion 1.4.4.2 | Covered | Reason |
|--------|---|-------|--------------------|--------------------|------------------------|----------------|----------------|
| UN NO. | Name and description | Class | Indicative List | Exclusion Applies? | Exclusion Reference | by proposal | not covered |
| UN0356 | ARTICLES, EXPLOSIVE, N.O.S. | 1.3L | | | | N | 1 |
| UN0249 | CONTRIVANCES, WATER-ACTIVATED with burster, expelling charge or propelling charge | 1.3L | | | | N | 1 |
| UN0250 | ROCKET MOTORS WITH HYPERGOLIC LIQUIDS with or without expelling charge | 1.3L | | Y | (g) | N | 1,2 |
| UN0359 | SUBSTANCES, EXPLOSIVE, N.O.S. | 1.3L | | | | N | 1 |
| UN0350 | , , | 1.4B | | | | N | 1 |
| UN0383 | , , | 1.4B | | | | N | 1 |
| UN0361 | DETONATOR ASSEMBLIES, NON-ELECTRIC for blasting | 1.4B | Y | | | Y | |
| UN0365 | DETONATORS FOR AMMUNITION | 1.4B | Υ | Υ | (g) | N | 2 |
| UN0255 | · · · · · · · · · · · · · · · · · · · | 1.4B | Y | | | Y | |
| UN0267 | , | 1.4B | Y | | | Y | |
| UN0257 | · | 1.4B | | | | N | 1 |
| UN0378 | , | 1.4B | | Υ | (e) | N | 1,2 |
| UN0448 | 5-MERCAPTOTETRAZOL-1-ACETIC ACID | 1.4C | | | | N | 1 |
| UN0351 | ARTICLES, EXPLOSIVE, N.O.S. | 1.4C | | | | N | 1 |
| UN0338 | CARTRIDGES FOR WEAPONS, BLANK or CARTRIDGES, SMALL ARMS, BLANK | 1.4C | | Y | (g) | N | 1,2 |
| UN0339 | CARTRIDGES FOR WEAPONS, INERT PROJECTILE or CARTRIDGES, SMALL ARMS | 1.4C | | Y | (g) | N | 1,2 |
| UN0278 | CARTRIDGES, OIL WELL | 1.4C | | | | N | 1 |
| UN0276 | CARTRIDGES, POWER DEVICE | 1.4C | | | | N | 1 |
| UN0379 | CASES, CARTRIDGE, EMPTY, WITH PRIMER | 1.4C | | | | N | 1 |
| UN0446 | CASES, COMBUSTIBLE, EMPTY, WITHOUT PRIMER | 1.4C | | | | N | 1 |
| UN0491 | CHARGES, PROPELLING | 1.4C | | | | N | 1 |
| UN0509 | POWDER, SMOKELESS | 1.4C | | | | N | 1 |
| UN0501 | PROPELLANT, SOLID | 1.4C | | | | N | 1 |

1 - Not on the indicative list

2 – Excluded by proposed section 1.4.4.2

Color codes:

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Red text = item on the indicative list

| LINI NI | None and description | Class . | Item on the | Sub-secti | on 1.4.4.2 | Covered | Reason |
|---------|---|---------|-----------------|--------------------|------------------------|----------------|----------------|
| UN No. | Name and description | Class | Indicative List | Exclusion Applies? | Exclusion Reference | by proposal | not covered |
| UN0438 | ROCKETS with expelling charge | 1.4C | | Y | (g) | N | 1,2 |
| UN0479 | SUBSTANCES, EXPLOSIVE, N.O.S. | 1.4C | | | | N | 1 |
| UN0407 | TETRAZOL-1-ACETIC ACID | 1.4C | | | | N | 1 |
| UN0352 | ARTICLES, EXPLOSIVE, N.O.S. | 1.4D | | | | N | 1 |
| UN0459 | CHARGES, BURSTING, PLASTICS BONDED | 1.4D | | | | N | 1 |
| UN0444 | CHARGES, EXPLOSIVE, COMMERCIAL without detonator | 1.4D | | | | N | 1 |
| UN0237 | CHARGES, SHAPED, FLEXIBLE, LINEAR | 1.4D | Y | | | Y | |
| UN0440 | CHARGES, SHAPED, without detonator | 1.4D | Υ | | | Y | |
| UN0104 | CORD (FUSE), DETONATING, MILD EFFECT, metal | 1.4D | Y | | | Y | |
| | clad | | | | | | |
| UN0289 | CORD, DETONATING, flexible | 1.4D | Y | | | Y | |
| UN0410 | FUZES, DETONATING with protective features | 1.4D | | | | N | 1 |
| UN0494 | JET PERFORATING GUNS, CHARGED, oil well, without | 1.4D | | | | N | 1 |
| | detonator | | | | | | |
| UN0347 | PROJECTILES with burster or expelling charge | 1.4D | | Υ | (g) | N | 1,2 |
| UN0344 | 9 | 1.4D | | Y | (g) | N | 1,2 |
| UN0480 | SUBSTANCES, EXPLOSIVE, N.O.S. | 1.4D | | | | N | 1 |
| UN0370 | WARHEADS, ROCKET with burster or expelling charge | 1.4D | | Y | (g) | N | 1,2 |
| UN0471 | ARTICLES, EXPLOSIVE, N.O.S. | 1.4E | | | | N | 1 |
| UN0412 | CARTRIDGES FOR WEAPONS with bursting charge | 1.4E | | Y | (g) | N | 1,2 |
| UN0472 | ARTICLES, EXPLOSIVE, N.O.S. | 1.4F | | | | N | 1 |
| UN0348 | CARTRIDGES FOR WEAPONS with bursting charge | 1.4F | | Y | (g) | N | 1,2 |
| UN0427 | PROJECTILES with burster or expelling charge | 1.4F | | Y | (g) | N | 1,2 |
| UN0371 | WARHEADS, ROCKET with burster or expelling charge | 1.4F | | Y | (g) | N | 1,2 |

1 - Not on the indicative list

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| IINI NI- | Name and description Class | Olasa | Item on the | Sub-secti | on 1.4.4.2 | Covered | Reason |
|----------|--|-------|--------------------|--------------------|------------------------|----------------|----------------|
| UN No. | Name and description | Class | Indicative List | Exclusion Applies? | Exclusion Reference | by proposal | not covered |
| UN0297 | AMMUNITION, ILLUMINATING with or without burster, | 1.4G | | Y | (g) | N | 1,2 |
| | expelling charge or propelling charge | | | | | | |
| UN0300 | AMMUNITION, INCENDIARY with or without burster, | 1.4G | | Y | (g) | N | 1,2 |
| | expelling charge or propelling charge | | | | | | |
| UN0362 | AMMUNITION, PRACTICE | 1.4G | | Y | (g) | N | 1,2 |
| UN0363 | AMMUNITION, PROOF | 1.4G | | Y | (g) | N | 1,2 |
| UN0303 | AMMUNITION, SMOKE with or without burster, expelling | 1.4G | | Y | (g) | N | 1,2 |
| | charge or propelling charge | | | | | | |
| UN0301 | AMMUNITION, TEAR-PRODUCING with burster, | 1.4G | | Υ | (g) | N | 1,2 |
| | expelling charge or propelling charge | | | | | | |
| UN0353 | ARTICLES, EXPLOSIVE, N.O.S. | 1.4G | | | | N | 1 |
| UN0431 | ARTICLES, PYROTECHNIC for technical purposes | 1.4G | | Y | (f) | N | 1,2 |
| UN0312 | CARTRIDGES, SIGNAL | 1.4G | | Y | (f) | N | 1,2 |
| UN0066 | CORD, IGNITER | 1.4G | | | | N | 1 |
| UN0336 | FIREWORKS | 1.4G | | Y | (f) | N | 1,2 |
| UN0403 | FLARES, AERIAL | 1.4G | | Y | (f) | N | 1,2 |
| UN0103 | FUSE, IGNITER, tubular, metal clad | 1.4G | | Y | (c) | N | 1,2 |
| UN0317 | FUZES, IGNITING | 1.4G | | | | N | 1 |
| UN0452 | GRENADES, PRACTICE, hand or rifle | 1.4G | | Y | (g) | N | 1,2 |
| UN0325 | IGNITERS | 1.4G | | | | N | 1 |
| UN0320 | PRIMERS, TUBULAR | 1.4G | | | | N | 1 |
| UN0435 | PROJECTILES with burster or expelling charge | 1.4G | | Y | (g) | N | 1,2 |
| UN0425 | PROJECTILES, inert with tracer | 1.4G | | Y | (g) | N | 1,2 |
| UN0453 | ROCKETS, LINE-THROWING | 1.4G | | Y | (g) | N | 1,2 |
| UN0503 | SAFETY DEVICES, PYROTECHNIC | 1.4G | | | | N | 1 |
| UN0191 | SIGNAL DEVICES, HAND | 1.4G | | Y | (f) | N | 1,2 |
| UN0505 | SIGNALS, DISTRESS, ship | 1.4G | | Y | (f) | N | 1,2 |

1 - Not on the indicative list

| UN No. | Nome and description | Class | Item on the | Sub-section 1.4.4.2 | | Covered | Reason not |
|--------|---|-------|--------------------|---------------------|------------------------|----------------|---------------|
| UN NO. | Name and description | Class | Indicative List | Exclusion Applies? | Exclusion Reference | by proposal | covered |
| UN0493 | SIGNALS, RAILWAY TRACK, EXPLOSIVE | 1.4G | | Y | (f) | N | 1,2 |
| UN0197 | SIGNALS, SMOKE | 1.4G | | Y | (f) | N | 1,2 |
| UN0485 | SUBSTANCES, EXPLOSIVE, N.O.S. | 1.4G | | | | N | 1 |
| UN0306 | TRACERS FOR AMMUNITION | 1.4G | | | | N | 1 |
| UN0349 | ARTICLES, EXPLOSIVE, N.O.S. | 1.4S | | | | N | 1 |
| UN0432 | , | 1.4S | | Y | (f) | N | 1,2 |
| UN0014 | CARTRIDGES FOR WEAPONS, BLANK or CARTRIDGES, SMALL ARMS, BLANK or CARTRIDGES FOR TOOLS, BLANK | 1.4S | | Y | (g) | N | 1,2 |
| UN0012 | CARTRIDGES FOR WEAPONS, INERT PROJECTILE or CARTRIDGES, SMALL ARMS | 1.48 | | Y | (g) | N | 1,2 |
| UN0323 | CARTRIDGES, POWER DEVICE | 1.4S | | | | N | 1 |
| UN0405 | CARTRIDGES, SIGNAL | 1.4S | | Υ | (f) | N | 1,2 |
| UN0055 | CASES, CARTRIDGE, EMPTY, WITH PRIMER | 1.4S | | | | N | 1 |
| UN0460 | CHARGES, BURSTING, PLASTICS BONDED | 1.4S | | | | N | 1 |
| UN0445 | CHARGES, EXPLOSIVE, COMMERCIAL without detonator | 1.4S | | | | N | 1 |
| UN0441 | CHARGES, SHAPED, without detonator | 1.48 | Y | | | Υ | |
| UN0384 | COMPONENTS, EXPLOSIVE TRAIN, N.O.S. | 1.4S | | | | N | 1 |
| UN0070 | , , | 1.4S | | Υ | (f) | N | 1,2 |
| UN0500 | DETONATOR ASSEMBLIES, NON-ELECTRIC for blasting | 1.48 | Y | | | Y | |
| UN0366 | DETONATORS FOR AMMUNITION | 1.48 | Y | Y | (g) | N | 2 |
| UN0456 | DETONATORS, ELECTRIC for blasting | 1.48 | Y | | | Υ | |
| UN0455 | , | 1.48 | Y | | | Υ | |
| UN0337 | FIREWORKS | 1.4S | | Y | (f) | N | 1,2 |

1 - Not on the indicative list

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| LINI NIa | None and description | Class | Item on the | Sub-secti | on 1.4.4.2 | Covered | Reason |
|----------|---|-------|--------------------|--------------------|------------------------|----------------|----------------|
| UN No. | Name and description | Class | Indicative List | Exclusion Applies? | Exclusion Reference | by proposal | not covered |
| UN0404 | FLARES, AERIAL | 1.48 | | Y | (f) | N | 1,2 |
| UN0105 | FUSE, SAFETY | 1.4S | | Y | (d) | N | 1,2 |
| UN0367 | FUZES, DETONATING | 1.4S | | | | N | 1 |
| UN0368 | FUZES, IGNITING | 1.4S | | | | N | 1 |
| UN0110 | GRENADES, PRACTICE, hand or rifle | 1.4S | | Y | (g) | N | 1,2 |
| UN0454 | IGNITERS | 1.4S | | | | N | 1 |
| UN0131 | LIGHTERS, FUSE | 1.4S | | | | N | 1 |
| UN0044 | PRIMERS, CAP TYPE | 1.4S | | Y | (e) | N | 1,2 |
| UN0376 | PRIMERS, TUBULAR | 1.4S | | | | N | 1 |
| UN0345 | PROJECTILES, inert with tracer | 1.4S | | Y | (g) | N | 1,2 |
| UN0173 | RELEASE DEVICES, EXPLOSIVE | 1.4S | | Y | (f) | N | 1,2 |
| UN0174 | RIVETS, EXPLOSIVE | 1.4S | | Y | (f) | N | 1,2 |
| UN0373 | SIGNAL DEVICES, HAND | 1.4S | | Y | (f) | N | 1,2 |
| UN0506 | SIGNALS, DISTRESS, ship | 1.4S | | Y | (f) | N | 1,2 |
| UN0193 | SIGNALS, RAILWAY TRACK, EXPLOSIVE | 1.4S | | Y | (f) | N | 1,2 |
| UN0507 | SIGNALS, SMOKE | 1.4S | | Y | (f) | N | 1,2 |
| UN0481 | SUBSTANCES, EXPLOSIVE, N.O.S. | 1.4S | | | | N | 1 |
| UN0331 | EXPLOSIVE, BLASTING, TYPE B (AGENT, BLASTING, TYPE B) | 1.5D | Y | | | Y | |
| UN0332 | EXPLOSIVE, BLASTING, TYPE E (AGENT, BLASTING, TYPE E) | 1.5D | Y | | | Y | |
| UN0482 | SUBSTANCES, EXPLOSIVE, VERY INSENSITIVE (SUBSTANCES, EVI), N.O.S. | 1.5D | Y | | | Y | |
| UN0486 | ARTICLES, EXPLOSIVE, EXTREMELY INSENSITIVE (ARTICLES, EEI) | 1.6N | | | | N | 1 |
