

**Ministry of Defence
Defence R&D Organisation**



STEC PAMPHLET - 2

**CLASSIFIED LIST OF MILITARY EXPLOSIVES FOR
TRANSPORT AND STORAGE**

2025

Issued by

Storage & Transport of Explosives Committee
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Brig. S. K. Mazumdar Marg, Delhi – 110054

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PREFACE

As per the decision of the STEC, the pamphlet “Classified list of Military Explosives” was revised and issued in 1987 based on UN system of Classification of Explosives. The above revision was interim as aspect like charge/wt ratio, fire class and service nomenclature as per the old method of classification were retained to familiarize the users with the new system

In this pamphlet, the regulations for hazard classification of explosives are given which are in consonance with UN system of classification. It has comprehensive tables of ammunition and explosives, based on their generic nomenclature, armed as “Authorized Short Name”. In addition, the classifications assigned by conduct of trials or analogy and amendments issued in the last revision have also been incorporated. These are intended for use of different Services/Organizations under the Ministry of Defence.

It is hoped that users will find this revised STEC Pamphlet 2025 simpler, easier to understand and implement, thereby promoting the safe storage and transportation of military explosive. This publication supersedes STEC Pamphlet, 2017 on the subject.

SECTION –1

INTRODUCTION

Scope

1. The pamphlet provides information on the classification of Military Explosives (the term includes ammunition) for the guidance of those involved in arranging the storage and transport of military explosives.
2. Military Explosives are explosives which are property of the Ministry of Defence or explosives certified by the Ministry of Defence as being transported on its behalf. The term Military explosives is used in this Pamphlet to cover both explosive substances and articles. For details of other terms used in the Pamphlet, reference Annexure-2.

Legal Position

3. The Indian Explosives Act, 1884 (IV OF 1884) regulates the manufacture, possession, use, sale, transport and importation of explosives in India. The act is operated by the Ministry of Industry, Department of Industrial Development through the PESO, Chief Controller of Explosives, Nagpur. Section 14(a) of this act exempts the Defence Services from the provisions of the Act except the reporting of accidents to PESO, Chief Controller of Explosives Nagpur.
4. The Storage and Transport of Explosives Committee (STEC) under the Ministry of Defence whose terms of reference are set forth in the Govt. of India, Ministry of Defence letter No. 95300/X/1/STEC/RD20/987/D(R&D) dated 27 Sep 73 as amended from time to time, is the competent authority for the classification of Military Explosives. The Secretary STEC issues the classifications after their formal endorsement by the Committee.
5. As per the regulations it is necessary that no explosives are conveyed, stored or supplied unless:
 - a) They have been classified for transport and/or storage (i.e. packaged or unpackaged as appropriate).
 - b) The explosives and any packaging are labeled in accordance with the regulations.
6. The classification system followed in these regulations is known as the UN International System of Classification and is detailed in the UN publication entitled Recommendations “on the Transport of Dangerous Goods” which is commonly referred to as the “Orange Book”.

Purpose of Classification

- 7 The assignment of Military Explosives into various Hazard Division and Compatibility Groups for storage and transport purposes is essential in order to control the conditions under which these operations are to be carried out with reasonable regard to the safety of life and property and is, in fact, the whole basis of safety in storage and transport. These controls deal with such matters as :
- a) The standards and marking of packages.
 - b) Segregation on basis of sensitiveness and compatibility.
 - c) The type of hazard anticipated if the items are involved in a fire or explosion (e.g. probability of mass explosion).
 - d) Maximum quantity limits based on the effects of an accidental fire or explosion.
 - e) The possibilities of fighting a fire in which the items are involved.

SECTION –II

UN INTERNATIONAL SYSTEM OF CLASSIFICATION

General

8. The UN International System of Classification was devised in order to promote the safe transport of dangerous goods and its use has since been extended to the storage of explosives. The basis of the system is the classification of goods by the type of hazard involved.
9. Full details of the system are contained in the “UN Orange Book”. The brief description of which follows is consistent with the “UN Orange Book”.
10. The system consists of 9 classes (1-9), of which Class-1 essentially comprises explosive substances and articles.
11. The term Hazard Division (HD) is used throughout in this Pamphlet instead of Division as used in the “Orange Book”.
12. Class 1 is divided into 6 HDs. The first four Hazard Divisions indicate the type of hazard to be expected in the event of an accident; blast (HD 1.1), projection effect (HD1.2), fire and radiant heat (HD1.3) and no significant hazard (HD1.4). The fifth Hazard Division (HD1.5) comprises explosive substances which have a mass explosion hazard but which are so insensitive that there is very little probability of initiation or of transition from burning to detonation under normal conditions of transport. The sixth Hazard Division (HD1.6) comprises articles which contain only extremely insensitive detonating substances and which demonstrate a negligible probability of accidental initiation or propagation. Strictly the initial Figure 1 in HD 1.1 etc. refers to the Class of Dangerous Goods (i.e. Class 1 explosives) but it is common practice to include it when referring to Hazard Division of Hazard Classification Codes (HCC) (e.g. 1.1D).
13. In order to identify the kind of explosives deemed to be compatible and those, which may have to be segregated to promote safety in storage and transport, they are assigned to one or other of 13 Compatibility Groups. These Groups have been defined so that, with the exception of Compatibility Groups L and N, all explosives in any one Group are compatible with one another in storage and in every mode of transport.
14. The safety of explosive articles and substances would be enhanced if each type or nature were stored and/or transported separately, but considerations of practicability and economics preclude such an ideal. In practice, a proper balance of the interests of safety against other relevant factors necessitates a degree of mixing in the transport and storage of explosives. The permissible extent of such mixing is determined by the compatibility of the explosives

concerned. Explosives are considered to be compatible if they may be stored, stowed or carried together without significantly increasing either the probability of an accident or, for a given quantity –the magnitude of the effects of such an accident.

Definitions of the Hazard Divisions

15. Hazard Division 1.1.

- a) This division comprises substances and articles which have a mass explosion hazard.
- b) The major hazards of this division are blast, high velocity projections and other projections of relatively low velocity.
- c) The explosion results in severe structural damage, the severity and range being determined by the amount of high explosives involved. There may be a risk from heavy debris propelled from the structure in which the explosion occurs or from the crater.
- d) This division may display hazards associated with other divisions.

16. Hazard Division 1.2

- a) This division comprises substances and articles which have a projection hazard but not a mass explosion hazard.
- b) The explosion results in items burning and exploding progressively, a few at a time. Furthermore, fragments, firebrands and unexploded items may be projected in considerable numbers; some of these may explode on impact and cause fires or explosions. Blast effects are limited to the immediate vicinity.
- c) For the purpose of determining Quantity-Distances, a distinction is made between those items which give small fragments of moderate range (for instance projectiles and cartridges of caliber from 20 to 60 mm) and those which give large fragments with a considerable range (for instance projectiles and cartridges) exceeding 60mm caliber, rockets and motors in a propulsive state which do not have a mass explosion hazard).

17. Hazard Division 1.3

- (a) This division comprises substances and articles which have a fire hazard and either a minor blast hazard or a minor projection hazard or both, but not a mass explosion hazard, and which:
 - (i) give rise to considerable radiant heat, or
 - (ii) which burn one after another, producing minor blast or projection effects or both.
- (b) This division includes some items which burn with great violence and intense heat emitting considerable thermal radiation (mass fire hazard) and others which burn sporadically. Items in this division may explode but do not usually form dangerous high velocity fragments. However, firebrands and burning containers may be projected.

18. Hazard Division 1.4

- a) This division comprises substances and articles which present no significant hazard.
- b) This division includes items, which are primarily a moderate fire hazard. They do not contribute excessively to a fire. The effects are largely confined to the package. No fragments of appreciable size or range are to be expected. An external fire does not cause the simultaneous explosion of the total contents of a package of such items.
- c) Some but not all of the above items are in Compatibility Group S. Such items are so designed or packaged that any hazardous effects arising from accidental functioning are confined within the package unless the package has been degraded by fire, in which case all blast or projection effects are limited to the extent that they do not significantly hinder fire-fighting or other emergency response efforts in the immediate vicinity, i.e. within 5 meters, of the package.

19. Hazard Division 1.5

This division comprises very insensitive substances which have a mass explosion hazard but which are so insensitive that there is very little probability of initiation or of transition from burning to detonation under normal conditions of transport. For storage purposes, when stored alone, such substances are treated as HD 1.1. The probability of transition from burning to detonation is greater when large bulk quantities are transported or stored.

20. Hazard Division 1.6

- a) This division comprises extremely insensitive articles which do not have a mass explosion hazard.
- b) This division includes articles which contain only extremely insensitive detonating substances and which demonstrate a negligible probability of accidental initiation or propagation. The risk from articles of division 1.6 is limited to the explosion of a single article.

Note: Although there are no military explosives belong to HD 1.5 and HD 1.6 in-service, the likely candidates are TATB, HNS and plastic bonded explosives. In civil side, UN Serial No. 331 and 332 viz. explosive blasting type B and type E are under HD 1.5 in table IV of Pamphlet. There is no example known so far for HD 1.6 though provision for the same has been made in UN 0486.

Toxic and Pyrotechnic Ammunition

- 21. Toxic Ammunition: Ammunition containing explosives dispersing charge and a toxic chemical agent is assigned to the appropriate Hazard Division on the basis of the explosives hazard. For storage purposes, the Class 1 classification takes precedence and an appropriate Hazard Division is assigned together with Compatibility Group K. For transport purposes, if the Toxic hazard is the dominant effect the ammunition is assigned to UN Class 6. Such ammunition however, would always be subject to special conditions during transport and storage.
- 22. Pyrotechnic Ammunition: Tear-gas, corrosive smoke agents, white phosphorus, Napalm, etc. without explosives are assigned to the appropriate UN Class (6,8 etc.) of the International System of Classification for transport purposes. When made up into ammunition etc. which also contains explosives, the Class 1 classification takes precedence. The ammunition is assigned to an appropriate Hazard Division and Compatibility Group. Any Subsidiary risk, if applicable, (e.g. Class 6.1,8 etc.) is also assigned.

Description of Compatibility Group

- 23. Compatibility Groups are described in Table-1, which also shows possible Hazard Classification Codes (i.e. Hazard Division and Compatibility Group combinations see Para 28 below).
- 24. Attention is drawn to the descriptions of Compatibility Groups B, F, D and E. The essential differences between them are rather subtle and depend on such things as:
 - a) Whether a means of initiation is or is not fitted.
 - b) Whether the means of initiation has at least two effective protective features which prevent the initiation of the ammunition in the event of the accidental

functioning of the means of initiation, during handling, storage and transport.

- c) Whether when the means of initiation is packed in the same package as the ammunition (but separate) the method of packaging is such as to prevent the initiation of the ammunition in the event of an accidental functioning Of the initiating device.

25. These differences are perhaps best illustrated by examples as follows:

- a) A detonating fuze will be Compatibility Group B if it does not have at least two effective protective features, but will be Compatibility Group D when it does.
- b) A plugged HE shell will be Compatibility Group D.
- c) And HE shell fitted with a Compatibility Group D fuze will be classified Compatibility Group D.
- d) And HE shell fitted with a Compatibility Group B fuze will be classified Compatibility Group F.
- e) HE grenades packaged with their fuzes will be classified compatibility Group D only if it has been demonstrated that even if the fuzes function accidentally, the grenades will not be initiated; otherwise they will be classified Compatibility Group F.
- f) And HE round fitted with a Compatibility Group D fuze will be Compatibility Group E, but will be Compatibility Group F if it has a Compatibility Group B fuze.

26. These differences are of practical and economic importance as in general the storage and transport requirements for Compatibility Group D and E ammunition are less restrictive than those for Compatibility Groups B and F.

27. It is emphasized that those secondary detonating explosives (high explosives) which are relatively sensitive to spark or friction, e.g. black powder, can only be assigned to Compatibility Group D when they are properly packed in a dust-tight container. Otherwise, special precautions are essential and Compatibility Group L would apply.

Hazard Classification Codes

28. The combination of Hazard Division and Compatibility Group is known as the Classification Code. Table 1 shows only 35 classification Codes which are permitted, although at first sight the 6 Hazard Divisions and 13 Compatibility Groups should give 78 combinations. Table 2 shows, in the form of gaps in the matrix, the combinations that cannot exist because the definitions of the division and group are mutually exclusive, or do not occur in practice because the resultant characteristics are highly improbable or useless for explosives.

29. Classification codes are very useful because they are so concise and present no language problems. For safe storage and transport the 35 codes summarize the significant characteristics of the whole range of different types of ammunition. These advantages can be explained as follows:-
- a) Ammunition can be marked or labeled with classification codes to facilitate identification. Various national systems have been used for many years. The objective is to use one system world-wide for both commercial and military explosives, and for the system to resemble that used for other dangerous goods. The codes of the International System of Classification are well suited to this aim.
 - b) Documents relating to storage and transport of ammunition can use classification codes to convey the majority, and sometimes the whole, of the technical information needed to ensure safe handling, permitted mixed storage or stowage, required segregation, a suitable building or vehicle and appropriate fire-fighting techniques.
 - c) Safety regulations for storage and transport of ammunition can be formulated more simply and concisely by framing them in terms of classification codes. The codes have been selected so as to harmonise with the requirements of various nations and individual modes of transport. Although the requirements may differ, the regulations can use the same codes to promote standardization of concepts and terminology.
30. In practice, the Compatibility Group is assigned first and the Hazard Division is assigned next. Table 1 summarises the relevant characteristics of the whole range of explosives in terms of the Hazard Classification Codes. Assignment of the appropriate Compatibility Group is usually obvious from the description of the item. Where there is doubt about the interpretation of the definitions of the Compatibility Groups, it may be helpful to consult the list of existing classifications (Table 4 of this Pamphlet).
31. Table 1 shows that usually an article or package complying with the definition of a particular Compatibility Group can have alternative Classification Codes depending upon the hazard assessment. The hazard assessment depends on the nature and quantity of explosive substance, the type of packaging and other factors and thus cannot always be determined by theoretical methods.

Levels of Classification

32. Table 3 shows the various levels at which explosives can be classified as specified. Blasting gelatin and Projectiles 155mm, M107, are given as examples. The key feature of the Hazard Classification Code is that it corresponds to the optimum level to give as much information as is really needed in storage or transport. It should be noted, however, that the classification is usually linked to a specific package, ammunition container assembly or unit load.

SECTION –III

PROCEDURE FOR CLASSIFICATION OF MILITARY EXPLOSIVES

General

33. In Ministry of Defence, STEC is the authority for assessing and promulgating the appropriate Hazard Division of Military Explosives. It is the responsibility of the appropriate Service HQ/MoD Organizations to initiate action to provide the STEC with all necessary information for any tests that the STEC may consider necessary to determine the correct Hazard Division.
34. The process of assigning appropriate Classification to a Military Explosive, packaged or unpackaged, consists of:
 - a) Hazard Division as a result of tests or by analogy.
 - b) Compatibility Group.
 - c) UN Proper Shipping Name and Serial Number from the List of Dangerous Goods, most commonly carried at Chapter 2 of the 'Orange Book'.

Classification

35. The test scheme used by the STEC is that detailed in the United Nations Manual of Tests and Criteria for the Classification of Explosive Substances and Articles. An outline of the Classification Test Scheme to assign the Hazard Division is given in Section IV of STEC Pamphlet No. 1. Explosives are classified in respect of their Compatibility Group by assigning them to the most appropriate Group given in Table 1. It is well recognized that minor difference in the construction of packaging can be critical and make a significant difference to the effect of explosion, thus necessitating a change in the hazard assessment and Hazard Classification Code. STEC, therefore, attaches great importance to actual practical trials.

Type of classifications

36. STEC awards two types of classification and these are described below:
 - a) **Permanent Classification.** Permanent Classifications are intended to cover all in-service military explosives in their service packages and in unit loads or unpackaged when stored or transported in such condition.
 - b) **Provisional Classification.** Provisional classifications are intended for allocation to military explosives in the development stage or imported ammunition and may continue for a maximum three years period. These will be automatically cancelled if still outstanding at the end of this period.

Procedure for obtaining classifications

37. Request for classification of Military Explosives should be made on prescribed Performa given at annexure I.
38. The information required to enable STEC to assign classification is detailed in the application form. It is the responsibility of the applicant to provide the information required to enable the classification to be completed.
39. The classification shall be awarded provisionally by the Secretary STEC which will subsequently be endorsed by Storage Panel of STEC. The classification shall be ratified by the STEC and thereafter necessary amendments/additions/deletions incorporated in the regulations.
40. Classification shall be made by STEC on the understanding that the explosive substance, the design of the item and the method of packaging have been approved for transport, as packed, by the Authority Holding Sealed Particulars (AHSP) or Design Authority from the development of the item till its introduction into the service.
41. The classification shall apply only to serviceable explosives in serviceable packages (when used).
42. The classification shall not apply to partly functioned or malfunctioned times which should be stored and conveyed under special arrangements.
43. The classification assigned by STEC, duly entered in Part B of Annexure-1, will be intimated to the applicant and Service HQ concerned.

SECTION –IV

COMPREHENSIVE TABULATION OF AMMUNITION AND EXPLOSIVES

Description and Remarks

45. The classified list of military explosives is presented in two different formats described below:
- a) Table –4: List of substances and articles is presented in ascending order of UN Serial Number. The serial Numbers in the table are allocated by United Nations for the International System of Classification.
 - b) Table –5: List of substance and articles is presented compatibility group wise.
- 46.
- a) The names of substances and articles in capital letters indicate the Authorized Short Names of items for use on packages and in transport document.
 - b) The alternative shipping name has been shown in brackets following proper shipping name, e.g. Trinitrotoluene (TNT)
 - c) An entry marked with an asterisk after the Authorized Short Name (i.e. proper shipping name) indicates that, for the purpose of documentation and package marking, the name given should be supplemented with the technical name.
 - d) The abbreviation “N.O.S.” denotes “not otherwise specified”.

Table 1 –COMPATIBILITY GROUPS AND CLASSIFICATION CODES

Description of substance or articles to be classified	Compatibility-Group	Hazard Classification Code
Primary explosive substance	A	1.1A
Article containing a primary explosive substance and not containing two or more effective protective features	B	1.1B 1.2B 1.4B
Propellant explosive substance or other deflagrating explosive substance or article containing such explosive substance	C	1.1C 1.2 C 1.3 C 1.4 C
Secondary detonating explosive substance or black powder or article containing a secondary detonating explosive substance, in each case without means of initiation and without a propelling charge or article containing a primary explosive substance and containing two or more effective protective features.	D	1.1D 1.2D 1.4 D 1.5 D
Article containing a secondary detonating explosive substance, without means of initiation, with a Propelling charge (other than one containing a Flammable liquid or gel or hypergolic liquids)	E	1.1 E 1.2 E 1.4 E
Article containing a secondary detonating explosive substance with its own means of initiation, with a Propelling charge (other than one containing a flammable Liquid or gel or hypergolic liquids) or without a propelling charge.	F	1.1 F 1.2 F 1.3 F 1.4 F
Pyrotechnic substance or article containing a pyrotechnic substance or article containing both an explosive substance and an illuminating, incendiary, tear or smoke producing substance (other than a water-activated article or one containing white phosphorous, phosphides, a pyrophoric substance, a flammable liquid or gel or hypergolic liquids)	G	1.1 G 1.2 G 1.3 G 1.4G
Article containing both an explosive substance and white phosphorous	H	1.2 H 1.3 H
Article containing both an explosive substance and a flammable liquid or gel	J	1.1 J 1.2 J 1.3 J

Description of substance or articles to be classified	Compatibility-Group	Hazard Classification Code
Article containing both an explosive substance and a toxic chemical agent	K	1.2 K 1.3K
Explosive substance or article containing an explosive substance and presenting a special risk (e.g. due to water-activation or presence of hypergolic liquids, phosphides or a Pyrophoric substance) and needing isolation of each type	L	1.1 L 1.2 L 1.3 L
Articles containing only extremely insensitive detonating substance	N	1.6 N
Substance or article so packed or designed that any hazardous effects arising from accidental functioning are confined within the package unless the package has been degraded by fire, in which case all blast or projection effects are limited to the extent that they do not significantly hinder or prohibit firefighting or other emergency response efforts in the immediate vicinity of the package.	S	1.4 S

**Table 2-SCHEME OF CLASSIFICATION OF EXPLOSIVES, COMBINATION OF
HAZARD DIVISION WITH COMPATIBILITY GROUP**

COMPATIBILITY GROUPS														A-S
Hazard division	A	B	C	D	E	F	G	H	J	K	L	N	S	Σ
1.1	1.1 A	1.1 B	1.1 C	1.1 D	1.1 E	1.1 F	1.1 G		1.1 J		1.1 L			9
1.2		1.2 B	1.2 C	1.2 D	1.2 E	1.2 F	1.2 G	1.2 H	1.2 J	1.2 K	1.2 L			10
1.3			1.3 C			1.3 F	1.3 G	1.3 H	1.3 J	1.3 K	1.3 L			7
1.4		1.4 B	1.4 C	1.4 D	1.4 E	1.4 F	1.4 G						1.4 S	7
1.5				1.5 D										1
1.6												1.6 N		1
Σ(1.1-1.6)	1	3	4	4	3	4	4	2	3	2	3	1	1	35

Table 3 . DIAGRAMMATIC REPRESENTATION OF THE CLASIFICATION SYSTEM

(LEVEL)

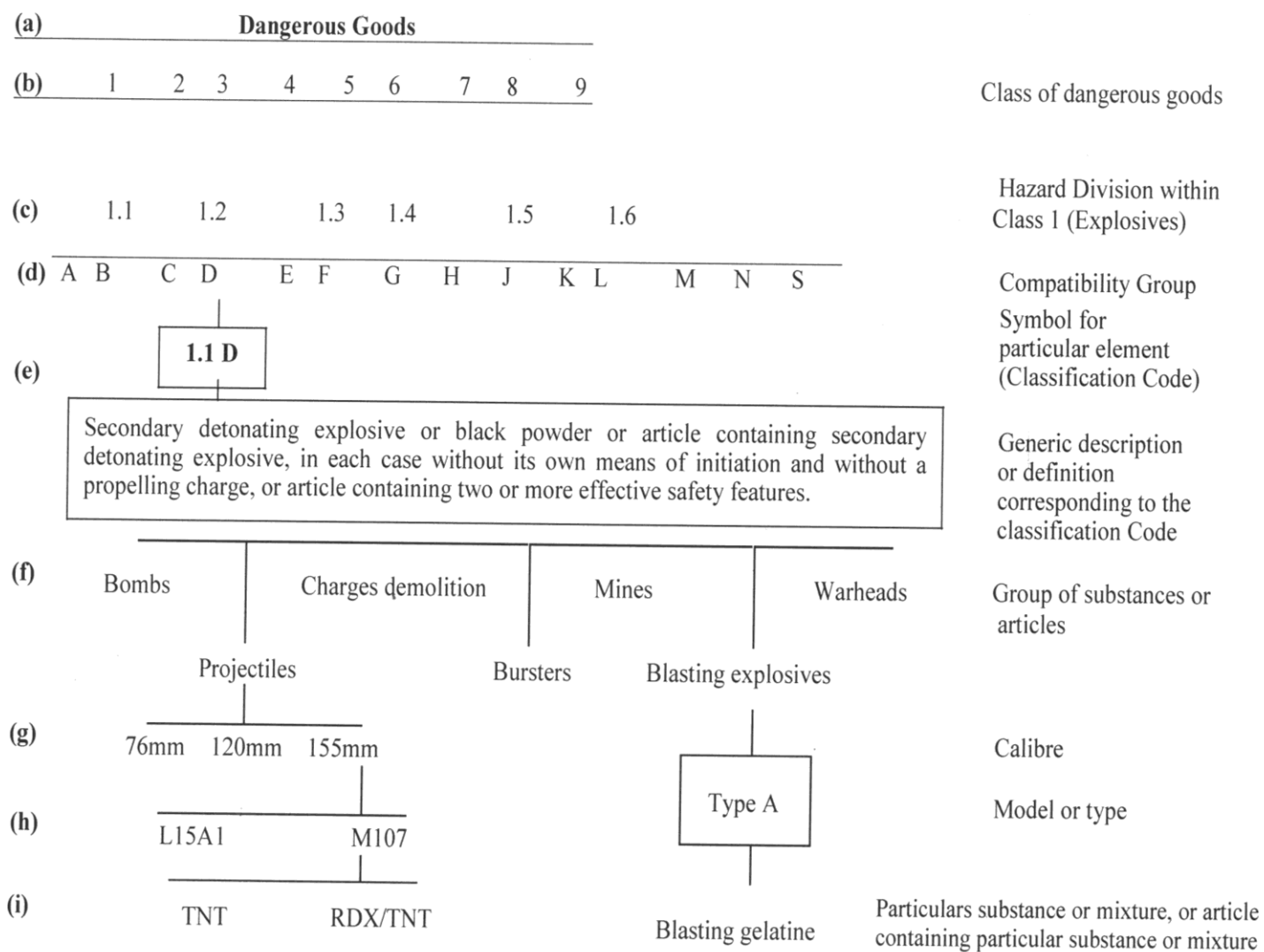


TABLE 4- LIST OF SUBSTANCES OR ARTICLES BY UN SERIAL NUMBER

UN Serial Number	Description of Substance or Article	Classification Code
0004	AMMONIUM PICRATE dry or wetted with less than 10% water. by mass	1.1D
0005	CARTRIDGES FOR WEAPONS with bursting charge	1.1F
0006	CARTRIDGES FOR WEAPONS with bursting charge	1.1E
0007	CARTRIDGES FOR WEAPONS with bursting Charge	1.2F
0009	AMMUNITION, INCENDIARY with or without burster, expelling charge or propelling charge	1.2G
0010	AMMUNITION, INCENDIARY with or without burster, expelling charge or propelling charge	1.3G
0012	CARTRIDGES FOR WEAPONS, INERT PROJCTILES or CARTRIDGES, SMALL ARMS	1.4S
0014	CARTRIDGES, FOR WEAPONS, BLANK or CARTRIDGES, SMALL ARMS, BLANK	1.4S
0015	AMMUNITION, SMOKE with or without burster,, expelling charge or propelling charge	1.2G
0016	AMMUNITION, SMOKE with or without burster, expelling charge or propelling charge	1.3G
0018	AMMUNITION TEAR-PRODUCING with burster, expelling charge or propelling charge	1.2G
0019	AMMUNITION, TEAR-PRODUCING with burster, expelling charge or propelling charge	1.3G
0020	AMMUNITION, TOXIC* with burster, expelling charge or propelling charge	1.2K
0021	AMMUINITION, TOXIC* with burster, expelling charge or propelling charge	1.3K
0027	BLACK POWDER (GUNPOWDER) granular or as a meal	1.1D
0028	BLACK POWDER (GUNPOWDER), COMPRESSED or BLACK POWDER (GUNPOWDER), IN PELLETS	1.1D
0029	DETONATORS, NON-ELECTRIC for blasting	1.1B

LIST OF SUBSTANCES OR ARTICLES BY UN SERIAL NUMBER

UN Serial Number	Description of Substance or Article	Classification Code
0030	DETONATORS, ELECTRIC for blasting	1.1B
0033	BOMBS with bursting charge	1.1F
0034	BOMBS with bursting charge	1.1D
0035	BOMBS with bursting charge	1.2D
0037	BOMBS, PHOTO-FLASH	1.1F
0038	BOMBS, PHOTO-FLASH	1.1D
0039	BOMBS, PHOTO-FLASH	1.2G
0042	BOOSTERS without detonator	1.1D
0043	BURSTERS, explosive	1.1D
0044	PRIMERS, CAPTYPE	1.4S
0048	CHARGES, DEMOLITION	1.1D
0049	CARTRIDGES, FLASH	1.1G
0050	CARTRIDGES, FLASH	1.3G
0054	CARTRIDGES, SIGNAL	1.3G
0055	CASES, CARTRIDGE, EMPTY, WITH PRIMER	1.4S
0056	CHARGES, DEPTH	1.1D
0059	CHARGES, SHAPED, COMMERCIAL without detonator	1.1D
0060	CHARGES, SUPPLEMENTARY, EXPLOSIVE	1.1D
0065	CORD, DETONATING, flexible	1.1D
0066	CORD, IGNITER	1.4G
0070	CUTTERS, CABLE, EXPLOSIVE	1.4S
0072	CYCLOTRIMETHYLENETRINITAMINE (CYCLONITE; HEXOGEN; RDX), WETTED with not less than 15% water, by mass	1.1D
0073	DETONATORS FOR AMMUNITION	1.1B
0074	DIAZODINITROPHENOL, WETTED with not less than 40% water, or mixture of alcohol and water, by mass	1.1A

LIST OF SUBSTANCES OR ARTICLES BY UN SERIAL NUMBER

UN Serial Number	Description of Substance or Article	Classification Code
0075	DIETHYLENEG LYCOL DINITRATE, DESENSITIZED with not less than 25% non-volatile, water-insoluble phlegmatizer by mass	1.1D
0076	DINITROPHENOL or wetted with less than 15% water, by mass	1.1D
0077	DINITROPHENOL, dry or wetted with less than 15% water, by mass	1.3C
0078	DINITRORESORCINOL, dry or wetted with less than 15% water, by mass	1.1D
0079	HEXANITRODIPHENYLAMINE (DIPICRYLAMINE; HEXYL)	1.1D
0081	EXPLOSIVE, BLASTING, TYPE A	1.1D
0082	EXPLOSIVE, BLASTING, TYPE B	1.1D
0083	EXPLOSIVE, BLASTING, TYPE C	1.1D
0084	EXPLOSIVE, BLASTING, TYPE D	1.1D
0092	FLARES, SURFACE	1.3G
0093	FLARES, AERIAL	1.3G
0094	FLASH POWDER	1.1G
0099	FRACTURING DEVICES, EXPLOSIVE without detonator, for oil wells	1.1D
0101	FUSE, INSTANTANEOUS, NON-DETONATING (QUICKMATCH)	1.3G
0102	CORD (FUSE), DETONATING, metal clad	1.2D
0103	FUSE, IGNITER, tubular, metal clad	1.4G
0104	CORD (FUSE, DETONATING, MILD EFFECT metal clad	1.4D
0105	FUSE, SAFETY	1.4S
0106	FUZES, DETONATING	1.1B
0107	FUZES, DETONATING	1.2B
0110	GRENADES, PRACTICE, hand or rifle	1.4S

Note When DNT is stored along with explosives, it is covered under UN Serials No 0083

LIST OF SUBSTANCES OR ARTICLES BY UN SERIAL

UN Serial Number	Description of Substance or Article	Classification Code
0113	GUANYLNITROSAMINO GUANYLIDENE HYDRAZINE, WETTED with not less than 30% water, by mass	1.1A
0114	GUANYLNITROSAMINO GUANYLTETRAZINE (TETRAZENE), WETTED with not less than 30% water or mixture of alcohol and water, by mass	1.1A
0118	HEXOLITE (HEXOTOL), dry or wetted with less than 15% water by mass	1.1D
0121	IGNITERS	1.1G
0124	JET PERFORATING GUNS, CHARGED, oil well, without detonator	1.1D
0129	LEAD AZIDE, WETTED with not less than 20% water, or mixture of alcohol and water, by mass	1.1A
0130	LEAD STYPHNATE (LEAD TRINITRORESORCINATE), WETTED with not less than 20% water, or mixture of alcohol and water, by mass	1.1A
0131	LIGHTERS, FUSE	1.4S
0132	DEFLAGRATING METAL SALTS OF AROMATIC NITRODERIVATIVES, N.O.S.	1.3C
0133	MANNITOL HEXANITRATE (NITROMANNITE), WETTED with not less than 40% water, or mixture of alcohol and water, by mass	1.1D
0135	MERCURY FULMINATE, WETTED with not less than 20% water, or mixture of alcohol and water, by mass	1.1A
0136	MINES with bursting charge	1.1F
0137	MINES with bursting charge	1.1D
0138	MINES with bursting charge	1.2D
0143	NITROGLYCERINE, DESENSITIZED with not less than 40% non-volatile water insoluble phlegmatizer, by mass	1.1D
0144	NITROGLYCERINE SOLUTION IN ALCOHOL with more than 1% but not more than 10% nitroglycerine	1.1D

LIST OF SUBSTANCES OR ARTICLES BY UN SERIAL NIMBER

UN Serial Number	Description Substance or Article	Classification Code
0146	NITROSTARCH, dry or wetted with less than 20% water ,by mass	1.1D
0147	NITRO UREA	1.1D
0150	PENTAERYTHRITE TETRANITRATE (PENTAERYTHRITOL TETRANITATE; PETN), WETTED with not less than 25% of water, by mass, or PENTAERYTHRITE TETRANITRATE (PENTAERYTHRITOL TETRANITRATE; PETN), DESENSITIZED with not less than 15% of phlegmatizer, by mass	1.1D
0151	PENTOLITE, dry or wetted with less than 15% water, by mass	1.1D
0153	TRINITROANILINE (PICRAMIDE)	1.1D
0154	TRINITROPHENOL (PICRICACID), dry or wetted with less than 30% water, by mass	1.1D
0155	TRINITROCHLOROBENZENE (PICRYL CHORIDE)	1.1D
0158	POTASSIUM SALLTS OF AROMATIC NITRO-DERIVATIVES, explosive	1.3C
0159	POWDER CAKE (POWDER PASTE), WETTED with not less than 25% water, by mass	1.3C
0160	POWDER, SMOKELESS	1.1C
0161	POWDER, SMOKELESS	1.3C
0167	PROJECTILES with bursting charge	1.1F
0168	PROJECTILES with bursting charge	1.1D
0169	PROJECTILES with bursting charge	1.2D
0171	AMMUNITION, ILLUMINATING with or without burster, expelling charge or propelling charge	1.2G
0173	RELEASE DEVICES, EXPLOSIVE	1.4S
0174	RIVETS, EXPLOSIVE	1.4S
0180	ROCKETS with bursting charge	1.1F
0181	ROCKETS with bursting charge	1.1E
0182	ROCKETS with bursting charge	1.2E

LIST OF SUBSTANCES OR ARTICLES BY UN SERIAL NUMBER

UN Serial Number	Description of Substance or Article	Classification Code
0183	ROCKETS with inert head	1.3C
0186	ROCKET MOTORS	1.3C
0190	SAMPLES, EXPLOSIVE, *other than initiating explosive	-
0191	SIGNAL DEVICES, HAND	1.4G
0192	SIGNALS, RAILWAY TRACK, EXPLOSIVE	1.1G
0193	SIGNALS, RAILWAY TRACK, EXPLOSIVE	1.4S
0194	SIGNALS, DISTRESS, ship	1.1G
0195	SIGNALS, DISTRESS, ship	1.3G
0196	SIGNALS, SMOKE	1.1G
0197	SIGNALS, SMOKE	1.4G
0203	SODIUM SALTS OF AROMATIC NITRO-DERIVATIVES; N.O.S., explosive	1.3C
0204	SOUNDING DEVICES, EXPLOSIVE	1.2F
0207	TETRANITROANILINE	1.1D
0208	TRINITROPHENYLMETHYLNITRAMINE (TETRYL)	1.1D
0209	TRINITROTOLUENE (TNT), dry or wetted with less than 30% water, by mass	1.1D
0212	TRACERS FOR AMMUNITION	1.3G
0213	TRINITROANISOLE	1.1D
0214	TRINITROBENZENE, dry or wetted with less than 30% water, by mass	1.1D
0215	TRINITROBENZOIC ACID, dry or wetted with less than 30% water, by mass	1.1D
0216	TRINITRO-m-CRESOL	1.1D
0217	TRINITONAPHTHALENE	1.1D
0218	TRINITROPHENETOLE	1.1D
0219	TRINITRORESORCINOL (STYPHNIC ACID), dry or wetted with less than 20% water, or mixture of alcohol and water, by mass	1.1D
0220	UREANITRATE, dry or wetted with less than 20% water, by mass	1.1D

LIST OF SUBSTANCES OR ARTICLES BY UN SERIAL NUMBER

UN Serial Number	Description of Substance or Article	Classification Code
0221	WARHEADS, TORPEDO with bursting charge	1.1D
0222	AMMONIUM NITRATE with more than 0.2% combustible substances, including any organic substance calculated as carbon, to the exclusion of any other added substance	1.1D
0223	AMMONIUM NITRATE FERTILIZER, which is more liable to explode than ammonium nitrate with 0.2% combustible substances, including any organic substance calculated as carbon, to the exclusion of any other added substance	1.1D
0224	BARIUM AZIDE, dry or wetted with less than 50% water, by mass	1.1A
0225	BOOSTERS WITH DETONATOR	1.1B
0226	CYCLOTETRAMETHYLENETETRAANITAMINE (HMX; OCTOGEN), WETTED with not less than 15% water, by mass	1.1D
0234	SODIUM DINITRO- <i>o</i> -CRESOLATE, dry or wetted with less than 15% water, by mass	1.3C
0235	SODIUM PICRAMATE, dry or wetted with less than 20% water, by mass	1.3C
0236	ZIRCONIUM PICRAMATE, dry or wetted with less than 20% water, by mass	1.3C
0237	CHARGES, SHAPED, FLEXIBLE, LINEAR	1.4D
0238	ROCKETS, LINE-THROWING	1.2G
0240	ROCKETS, LINE-THROWING	1.3G
0241	EXPLOSIVE, BLASTING, TYPE E	1.1D
0242	CHARGES, PROPELLING, FOR CANNON	1.3C
0243	AMMUNITION, INCENDIARY, WHITE PHOSPHORUS with burster, expelling charge or propelling charge	1.2H
0244	AMMUNITION, INCENDIARY, WHITE PHOSPHORUS with burster, expelling charge or propelling charge	1.3H
0245	AMMUNITION, SMOKE, WHITE PHOSPHORUS with burster, expelling charge or propelling charge	1.2H

LIST OF SUBSTANCES OR ARTICLES BY UN SERIAL NUMBER

UN		Classification
Serial Number	Description of Substance or Article	Code
0246	AMMUNITION, SMOKE, WHITE PHOSPHORUS with burster, expelling charge or propelling charge	1.3H
0247	AMMUNITION, INCENDIARY, liquid or gel, with burster, expelling charge or propelling charge	1.3J
0248	CONTRIVANCES, WATER-ACTIVATED*with burster, expelling charge or propelling charge	1.2L
0249	CONTRIVANCES, WATER-ACTIVATED*with burster, expelling charge or propelling charge	1.3L
0250	ROCKET MOTORS WITH HYPERGOLIC LIQUIDS with or without expelling charge	1.3L
0254	AMMUNITION, ILLUMINATING with or without burster, expelling charge or propelling charge	1.3G
0255	DETONATORS, ELECTRIC for blasting	1.4B
0257	FUZES, DETONATING	1.4B
0266	OCTOLITE (OCTOL),dry or wetted with less the 15% water, by mass	1.1D
0267	DETONATORS, NON-ELECTRIC for blasting	1.4B
0268	BOOSTERS WITH DETONATOR	1.2B
0271	CHARGES, PROPELLING	1.1C
0272	CHARGES, PROPELLING	1.3C
0275	CARTRIDGES, POWER DEVICE	1.3C
0276	CARTRIDGES, POWER DEVICE	1.4C
0277	CARTRIDGES, OIL WELL	1.3C
0278	CARTRIDGES, OIL WELL	1.4C
0279	CHARGES, PROPELLING, FOR CANNON	1.1C
0280	ROCKET MOTORS	1.1C
0281	ROCKET MOTORS	1.2C

LIST OF SUBSTANCES OR ARTICLES BY UN SERIAL NUMBER

UN		Classification
Serial Number	Description of Substance or Article	Code
0282	NITROGUANIDINE (PICRITE), dry or wetted with less than 20% water by mass	1.1D
0283	BOOSTERS without detonator	1.2D
0284	GRENADES, hand or rifle, with bursting charge	1.1D
0285	GRENADES, hand or rifle, with bursting charge	1.2D
0286	WARHEADS, ROCKET with bursting charge	1.1D
0287	WARHEADS, ROCKET with bursting charge	1.2D
0288	CHARGES, FLEXIBLE, LINEAR	1.1D
0289	CORD, DETONATING, flexible	1.4D
0290	CORD (FUSE), DETONATING, metal clad	1.1D
0291	BOMBS with bursting charge	1.2F
0292	GRENADES, hand or rifle, with bursting charge	1.1F
0293	GRENADES, hand or rifle, with bursting charge	1.2F
0294	MINES with bursting charge	1.2F
0295	ROCKETS with bursting charge	1.2F
0296	SOUNDING DEVICES, EXPLOSIVE	1.1F
0297	AMMUNITION, ILLUMINATING with or without burster, expelling charge or propelling charge	1.4G
0299	BOMBS, PHOTO-FLASH	1.3G
0300	AMMUNITION, INCENDIARY with or without burster, expelling charge or propelling charge	1.4G
0301	AMMUNITION, TEAR-PRODUCING with burster, expelling charge or propelling charge	1.4G
0303	AMMUNITION, SMOKE with or without burster, expelling or propelling charge	1.4G
0305	FLASH POWDER	1.3G
0306	TRACERS FOR AMMUNITION	1.4C
0312	CARTRIDGES, SIGNAL	1.4G

LIST OF SUBSTANCES OR ARTICLES BY UN SERIAL NUMBER

UN		Classification
Serial Number	Description of Substance or Article	Code
0313	SIGNALS, SMOKE	1.2G
0314	IGNITERS	1.2G
0315	IGNITERS	1.3G
0316	FUZES, IGNITING	1.3G
0317	FUZES, IGNITING	1.4G
0318	GRENADES, PRACTICE, hand or rifle	1.3G
0319	PRIMERS, TUBULAR	1.3G
0320	PRIMERS, TUBULAR	1.4G
0321	CARTRIDGES FOR WEAPONS with bursting charge	1.2E
0322	ROCKET MOTORS WITH HYPERGOLIC LIQUIDS with or without expelling charge	1.2L
0323	CARTRIDGES, POWER DEVICE	1.4S
0324	PROJECTILES with bursting charge	1.2F
0325	IGNITERS	1.4G
0326	CARTRIDGES FOR WEAPONS, BLANK	1.1C
0327	CARTRIDGES FOR WEAPONS, BLANK or CARTRIDGES SMALL ARMS, BLANK	1.3C
0328	CARTRIDGES FOR WEAPONS, INERT PROJECTILE	1.2C
0329	TORPEDOES with bursting charge	1.1E
0330	TORPEDOES with bursting charge	1.1F
0331	EXPLOSIVE, BLASTING, TYPE B	1.5D
0332	EXPLOSIVE, BLASTING, TYPE E	1.5D
0333	FIREWORKS	1.1G
0334	FIREWORKS	1.2G
0335	FIREWORKS	1.3G
0336	FIREWORKS	1.4G
0337	FIREWORKS	1.4S

LIST OF SUBSTANCES OR ARTICLES BY UN SERIAL NUMBER

UN		Classification
Serial Number	Description of Substance or Article	Code
0338	CARTRIDGES FOR WEARONS, BLANK or	1.4C
	CARTRIDGES, SMALL ARMS, BLANK	
0339	CARTRIDGES FOR WEAPONS, INERT	1.4C
	PROJECTILE or CARTRIDGES, SMALL ARMS	
0340	NITROCELLULOSE, dry or wetted with less	1.1D
	than 25% water (or alcohol), by mass	
0341	NITROCELLULOSE, unmodified or plasticized	1.1D
	with less than 18% plasticizing substance by mass	
0342	NITROCELLULOSE, WETTED with not less	1.3C
	than 25% alcohol, by mass	
0343	NITROCELLULOSE, PLASTICIZED with not less	1.3C
	than 18% platicizing substance, by mass	
0344	PROJECTILES with bursting charge	1.4D
0345	PROJECTILES, inert with tracer	1.4S
0346	PROJECTILES with burster or expelling charge	1.2D
0347	PROJECTILES with burster or expelling charge	1.4D
0348	CARTRIDGES FOR WEAPONS with bursting charge	1.4F
0349	ARTICLES, EXPLOSIVE, N.O.S.	1.4S
0350	ARTICLES, EXPLOSIVE, N.O.S.	1.4B
0351	ARTICLES, EXPLOSIVE, N.O.S.	1.4C
0352	ARTICLES, EXPLOSIVE, N.O.S.	1.4D
0353	ARTICLES, EXPLOSIVE, N.O.S.	1.4G
0354	ARTICLES, EXPLOSIVE, N.O.S.	1.1L
0355	ARTICLES, EXPLOSIVE, N.O.S.	1.2L
0356	ARTICLES, EXPLOSIVE, N.O.S.	1.3L
0357	SUBSTANCES, EXPLOSIVE, N.O.S	1.1L
0358	SUBSTANCES, EXPLOSIVE, N.O.S	1.2L

LIST OF SUBSTANCES OR ARTICLES BY UN SERIAL NUMBER

UN		Classification
Serial Number	Description of Substance or Article	Code
0359	SUBSTANCES, EXPLOSIVE, N.O.S	1.3L
0360	DETONATOR ASSEMBLIES, NON-ELECTRIC for blasting	1.1B
0361	DETONATOR ASSEMBLIES, NON-ELECTRIC for blasting	1.4B
0362	AMMUNITION, PRACTICE	1.4G
0363	AMMUNITION, PROOF	1.4G
0364	DETONATORS FOR AMMUNITION	1.2B
0365	DETONATORS FOR AMMUNITION	1.4B
0366	DETONATORS FOR AMMUNITION	1.4S
0367	FUZES, DETONATING	1.4S
0368	FUZES, IGNITING	1.4S
0369	WARHEADS, ROCKET with bursting charge	1.1F
0370	WARHEADS, ROCKET with burster or expelling charge	1.4D
0371	WARHEADS, ROCKET with burster or expelling charge	1.4F
0372	GRENADES, PRACTICE, hand or rifle	1.2G
0373	SIGNAL DEVICES, HAND	1.4S
0374	SOUNDING DEVICES, EXPLOSIVE	1.1D
0375	SOUNDING DEVICES, EXPLOSIVE	1.2D
0376	PRIMERS, TUBULAR	1.4S
0377	PRIMERS,CAPTYPE	1.1B
0378	PRIMERS,CAPTYPE	1.4B
0379	CASES, CARTRIDGE, EMPTY, WITH PRIMER	1.4C
0380	ARTICLES, PYROPHORIC	1.2L
0381	CARTRIDGES, POWER DEVICE	1.2C
0382	COMPONENTS, EXPLOSIVE TRAIN, N.O.S.	1.2B
0383	COMPONENTS, EXPLOSIVE TRAIN, N.O.S.	1.4B

LIST OF SUBSTANCES OR ARTICLES BY UN NUMBER

UN		Classification
Serial Number	Description of Substance or Article	Code
0384	COMPONENTS, EXPLOSIVE TRAIN, N.O.S.	1.4S
0385	5-NITROBENZOTRIAZOL	1.1D
0386	TRINITROBENZENESULPHONIC ACID	1.1D
0387	TRINITROFLUORENONE	1.1D
0388	TRINITROTOLUENE (TNT) AND TRINITROBENZENE MIXTURE or TRINITROTOLUENE (TNT) AND HEXANITROSTILBENE MIXTURE	1.1D
0389	TRINITROTOLUENE (TNT) MIXTURE CONTAINING TRINITROBENZENE AND HEXANITROSTILBENE	1.1D
0390	TRITONAL	1.1D
0391	CYCLOTRIMETHYLENETRINITRAMINE (CYCLONITE; HEXOGEN; RDX) AND CYCLOTETRMETHYLENE-TETRANITRAMINE (HMX; OCTOGEN) MIXTURES, WETTED with not less than 15% water, by mass or CYCLOTRIMETHYLENETRINITRAMINE (CYCLONITE; HEXOGEN; RDX) AND CYCLOTETRAMETHYLENE-TETRANITRAMINE (HMX; OCTOGEN) MIXTURES, DESENSITIZED with not less than 10% phlegmatizer, by mass	1.1D
0392	NITROSTILBENE	1.1D
0393	HEXOTONAL	1.1D
0394	TRINITRORESORCINOL (STYPHNIC ACID) WETTED with not less than 20% water, or mixture of alcohol and water, by mass	1.1D
0395	ROCKET MOTORS, LIQUID FUELLED	1.2J
0396	ROCKET MOTORS, LIQUID FUELLED	1.3J
0397	ROCKETS, LIQUID FUELLED with bursting charge	1.1J
0398	ROCKETS, LIQUID FUELLED with bursting charge	1.2J
0399	BOMBS WITH FLAMMABLE LIQUID with bursting charge	1.1J
0400	BOMBS WITH FLAMMABLE LIQUID with bursting charge	1.2J

LIST OF SUBSTANCES OR ARTICLES BY UN SERIAL NUMBER

UN		Classification
Serial Number	Description of Substance or Article	Code
0401	DIPICRYL SULPHIDE, dry or wetted with less than 10% water, by mass	1.1D
0402	AMMONIUM PERCHLORATE(APS 10 micron)	1.1D
0403	FLARES, AERIAL	1.4G
0404	FLARES, AERIAL	1.4S
0405	CARTRIDGES, SIGNAL	1.4S
0406	DINITROSOBENZENE	1.3C
0407	TETRAZOL-1-ACETIC ACID	1.4C
0408	FUZES, DETONATING with protective features	1.1D
0409	FUZES, DETONATING with protective features	1.2D
0410	FUZES, DETONATING with protective features	1.4D
0411	PENTAERYTHRITE TETRANITRATE (PENTAERYTHRITOL TETRANITRATE; PETN) with not less than 7% wax, by mass	1.1D
0412	CARTRIDGES FOR WEAPONS with bursting charge	1.4E
0413	CARTRIDGES FOR WEAPONS, BLANK	1.2C
0414	CHARGES, PROPELLING, FOR CANNON	1.2C
0415	CHARGES, PROPELLING	1.2C
0417	CARTRIDGES FOR WEAPONS, INERT PROJECTILE or CARTRIDGES, SMALL ARMS	1.3C
0418	FLARES, SURFACE	1.1G
0419	FLARES,SURFACE	1.2G
0420	FLARES, AERIAL	1.1G
0421	FLARES, AERIAL	1.2G
0424	PROJECTILES, inert with tracer	1.3G
0425	PROJECTILES, inert with tracer	1.4G
0426	PROJECTILES with burster or expelling charge	1.2F
0427	PROJECTILES with burster or expelling charge	1.4F

LIST OF SUBSTANCES OR ARTICLES BY UN SERIAL NUMBER

UN		Classification
Serial Number	Description of Substance or Article	Code
0428	ARTICLES, PYROTECHNIC for technical purposes	1.1G
0429	ARTICLES, PYROTECHNIC for technical purposes	1.2G
0430	ARTICLES, PYROTECHNIC for technical purposes	1.3G
0431	ARTICLES, PYROTECHNIC for technical purposes	1.4G
0432	ARTICLES, PYROTECHNIC for technical purposes	1.4S
0433	POWER CAKE (POWDER PASTE), WETTED with not less than 17% alcohol, by mass	1.1C
0434	PROJECTILES with burster or expelling charge	1.2G
0435	PROJECTILES with burster or expelling charge	1.4G
0436	ROCKET with expelling charge	1.2C
0437	ROCKET with expelling charge	1.3C
0438	ROCKET with expelling charge	1.4C
0439	CHARGES, SHAPED, COMMERCIAL without detonator	1.2D
0440	CHARGES, SHAPED, COMMERCIAL without detonator	1.4D
0441	CHARGES, SHAPED, COMMERCIAL without detonator	1.4S
0442	CHARGES, EXPLOSIVE, COMMERCIAL without detonator	1.1D
0443	CHARGES, EXPLOSIVE, COMMERCIAL without detonator	1.2D
0444	CHARGES, EXPLOSIVE, COMMERCIAL without detonator	1.4D
0445	CHARGES, EXPLOSIVE, COMMERCIAL without detonator	1.4S
0446	CASES, COMBUSTIBLE, EMPTY, WITHOUT PRIMER	1.4C
0447	CASES, COMBUSTIBLE, EMPTY, WITHOUT PRIMER	1.3C

LIST OF SUBSTANCE OR ARTICLES BY UN SERIAL NUMBER

UN		Classification
Serial Number	Description of Substance or Article	Code
0448	5-MERCAPTOTETRAZOL-1-ACETIC ACID	1.4C
0449	TORPEDOES, LIQUID FUELLED with or without bursting charge	1.1J
0450	TORPEDOES, LIQUID FUELLED with inert head	1.3J
0451	TORPEDOES with bursting charge	1.1D
0452	GRENADES, PRACTICE, hand or rifle	1.4G
0453	ROCKETS, LINE-THROWING	1.4G
0454	IGNITERS	1.4S
0455	DETONATORS, NON-ELECTRIC for blasting	1.4S
0456	DETONATORS, ELECTRIC for blasting	1.4S
0457	CHARGES, BURSTING, PLASTICS BONDED	1.1D
0458	CHARGES, BURSTING, PLASTICS BONDED	1.2D
0459	CHARGES, BURSTING, PLASTICS BONDED	1.4D
0460	CHARGES, BURSTING, PLASTICS BONDED	1.4S
0461	COMPONENTS, EXPLOSIVE TRAIN, N.O.S.	1.1B
0462	ARTICLES, EXPLOSIVE, N.O.S.	1.1C
0463	ARTICLES, EXPLOSIVE, N.O.S.	1.1D
0464	ARTICLES, EXPLOSIVE, N.O.S.	1.1E
0465	ARTICLES, EXPLOSIVE, N.O.S.	1.1F
0466	ARTICLES, EXPLOSIVE, N.O.S.	1.2C
0467	ARTICLES, EXPLOSIVE, N.O.S.	1.2D
0468	ARTICLES, EXPLOSIVE, N.O.S.	1.2E
0469	ARTICLES, EXPLOSIVE, N.O.S.	1.2F
0470	ARTICLES, EXPLOSIVE, N.O.S.	1.3C
0471	ARTICLES, EXPLOSIVE, N.O.S.	1.4E
0472	ARTICLES, EXPLOSIVE, N.O.S.	1.4F
0473	SUBSTANCES, EXPLOSIVE, N.O.S.	1.1A
0474	SUBSTANCES, EXPLOSIVE, N.O.S.	1.1C

LIST OF SUBSTANCES OR ARTICLES BY UN SERIAL NUMBER

UN Serial Number	Description of Substance or Article	Classification Code
0475	SUBSTANCES, EXPLOSIVE, N.O.S	1.1D
0476	SUBSTANCES, EXPLOSIVE, N.O.S	1.1G
0477	SUBSTANCES, EXPLOSIVE, N.O.S	1.3C
0478	SUBSTANCES, EXPLOSIVE, N.O.S	1.3G
0479	SUBSTANCES, EXPLOSIVE, N.O.S	1.4C
0480	SUBSTANCES, EXPLOSIVE, N.O.S	1.4D
0481	SUBSTANCES, EXPLOSIVE, N.O.S	1.4S
0482	SUBSTANCES, EXPLOSIVE, VERY INSENSITIVE (SUBSTANCES, EVI), N.O.S.	1.5D
0483	CYCLOTRIMETHYLENETRINTRAMINE (CYCLONITE; HEXOGEN; RDX), DESENSITIZED	1.1D
0484	CYCLOTETRAMETHYLENETETRANITRAMINE (OCTOGEN, HMX), DESENSITIZED	1.1D
0485	SUBSTANCES, EXPLOSIVE, N.O.S.	1.4G
0486	ARTICLES, EXPLOSIVE, EXTREMELY INSENSITIVE (ARTICLES, EEI)	1.6N
0487	SIGNALS, SMOKE	1.3G
0488	AMMUNITION, PRACTICE	1.3G
0489	DINITROGLYCOURIL (DINGU)	1.1D
0490	NITROTRIAZOLONE (NTO)	1.1D
0491	CHARGES, PROPELLING	1.4C
0492	SIGNALS, RAILWAY TRACK, EXPLOSIVE	1.3G
0493	SIGNALS, RAILWAY TRACK, EXPLOSIVE	1.4G
0494	JET PERFORATING GUNS, CHARGED, oil well, without detonator	1.4D
0495	PROPELLANT, LIQUID	1.3C
0496	OCTONAL	1.1D
0497	PROPELLANT, LIQUID	1.1C
0498	PROPELLANT, SOLID	1.1C
0499	PROPELLANT, SOLID	1.3C

Note :-

Description of N.O.S. (Not otherwise specified) under UN serial No 0349 to 0359 and 0461 to 0482 is left to incorporate new articles and substances which are not specifically covered in the list. The list caters for sufficient entries for futuristic items. Classification codes are not common. These are different for articles and substances

Table 5 –GROUPING OF SUBSTANCES OR ARTICLES BY COMPATIBILITY GROUPS.

Description of Substance or Article	Classification Code	UN Serial Number
Compatibility Group A		
BARIUM AZIDE, dry or wetted with less than 50% water by mass	1.1A	0224
DIAZODINITROPHENOL, WETTED with not less than 40% water, or mixture of alcohol and water, by mass	1.1A	0074
GUANYL NITOSAMINO GUANYLTETRAZENE	1.1A	0113
HYDRAZINE, WETTED with not less than 30% water, or mixture		
GUANYL NITROSAMINO GUANYLTETRAZENE (TETRAZENE), WETTED with not less than 30% water or mixture of alcohol and water, by mass	1.1A	0114
LEAD AZIDE, WETTED with not less than 20% Water, or mixture of alcohol and water, by mass	1.1A	0129
LEAD STYPHNATE (LEAD TRINITRORESORCINATE), WETTED with not less than 20% water, or mixture of alcohol and water, by mass	1.1A	0130
MERCURY FULMINATE, WETTED with not less than 20% water, or mixture of alcohol and water, by mass	1.1A	0135
SUBSTANCES, EXPLOSIVE, N.O.S.*	1.1A	0473

GROUPING OF SUBSTANCES OR ARTICLES BY COMPATIBILITY GROUPS

Description of Substance or Article	Classification Code	UN Serial Number
Compatibility Group B		
ARTICLES, EXPLOSIVE, N.O.S.	1.4B	0350
BOOSTERS WITH DETONATOR	1.1B	0225
	1.2B	0268
COMPONENTS, EXPLOSIVE TRAIN, N.O.S.	1.1B	0461
	1.2B	0382
	1.4B	0383
DETONATOR ASSEMBLIES, NON-ELECTRIC for blasting	1.1B	0360
	1.4B	0361
DETONATORS, ELECTRIC for blasting	1.1B	0030
	1.4B	0255
DETONATORS FOR AMMUNITION	1.1B	0073
	1.2B	0364
	1.4B	0365
DETONATORS, NON-ELECTRIC for blasting	1.1B	0029
	1.4B	0267
FUZES, DETONATING	1.1B	0106
	1.2B	0107
	1.4B	0257
PRIMERS, CAPTYPE	1.1B	0377
	1.4B	0378

GROUPING OF SUBSTANCES OR ARTICLES BY COMPATIBILITY GROUP

Description of Substance or Article	Classification Code	UN Serial Number
Compatibility Group C		
SUBSTANCES		
5-MERCAPTOTETRAZOL –1- ACETIC ACID	1.4C	0448
DEFLAGRATING METAL SALTS OF AROMATIC NITRODERIVATIVES, N.O.S	1.3C	0132
DINITROSOBENZENE	1.3C	0406
DINITROPHENOLAT, alkali metals, dry or wetted with less than 15% water by mass	1.3C	0077
NITROCELLULOSE, WETTED with not less than 25% alcohol by mass	1.3C	0342
NITROCELLULOSE, PLASTICIZED with not less than 18% plasticizing substance by mass	1.3C	0343
POTASSIUM SALTS OF AROMATIC NITRO-DERIVATIVES, explosive	1.3C	0158
POWDER CAKE (POWDER PASTE, WETTED with not less than 25% water, by mass	1.3C	0159
POWDER CAKE (POWDER PASTE, WETTED with not less than 17% alcohol, by mass	1.1C	0433
POWDER, SMOKELESS	1.1C	0160
	1.3C	0161
SODIUM DINITRO- <i>o</i> -CRESOLATE, dry or wetted With less than 15% water, by mass	1.3C	0234
SODIUM PICRAMTE, dry or wetted with less than 20% water, by mass	1.3C	0235
SODIUM SALTS OR AROMATIC NITRO-DERIVATIVES, N.O.S., explosives	1.3C	0203
SUNSTANCE, EXPLOSIVES, N.O.S.*	1.1C	0474
	1.3C	0477
	1.4C	0479
TERRZOL-1-ACETIC ACID	1.4C	0407
ZRCONIUM PICRAMATE, dry or wetted with Less than 20% water, by mass	1.3C	0236
ALLUMINIUM POWDER (spherical uncoated APS: 18 microns)	1.3C	-
AMMONIUM PERCHLORATE (APS: 50, 300 microns)	1.3C	-

GROUPING OF SUBSTANCES OR ARTICLES BY COMPATIBILITY GROUPS

Description of Substance or Article	Classification Code	UN Serial Number
Compatibility Group C		
ARTICLES		
ARTICLES, EXPLOSIVE, N.O.S.*	1.1C	0462
	1.2C	0466
	1.3C	0470
	1.4C	0351
CARTRIDGES FOR WEAPONS, BLANK	1.1C	0326
	1.2C	0413
CARTRIDGES FOR WEAPONS, BLANK or	1.3C	0327
CARTRIDGES, SMALL ARMS, BLANK	1.4C	0338
CARTRIDGES FOR WEAPONS, INERT PROJECTILE	1.2C	0328
CARTRIDGES FOR WEAPONS, INERT	1.3C	0417
PROJECTILE or CARTRIDGES, SMALL ARMS	1.4C	0339
CARTRIDGES, POWER DEVICE	1.2C	0381
	1.3C	0275
	1.4C	0276
CARTRIDGES, OIL WELL	1.3C	0277
	1.4C	0278
CASES, CARTRIDGE, EMPTY, WITH PRIMER	1.4C	0379
CASES, COMBUSTIBLE, EMPTY, WITHOUT PRIMER	1.3C	0447
	1.4C	0446
CHARGES, PROPELLING	1.1C	0271
	1.2C	0415
	1.3C	0272
	1.4C	0491
CHARGES, PROPELLING, FOR CANNON	1.1C	0279
	1.2C	0414
	1.3C	0242
PROPELLANT, LIQUID	1.1C	0497
	1.3C	0495
PROPELLANT, SOLID	1.1C	0498
	1.3C	0499
ROCKET MOTORS	1.1C	0280
	1.2C	0281
	1.3C	0186
ROCKETS with expelling charge	1.2C	0436
	1.3C	0437
	1.4C	0438

GROUPING OF SUBSTANCES OR ARTICLES BY COMPTIBILITY GROUP

Descriptions of Substance or Article	Classification Code	UN Serial Number
Compatibility Group C		
ROCKETS with inert head	1.3C	0183
COMPOSITE PROPELLANT BASED SOLID ROCKET MOTOR SEGMENTS (with both port side open dia 1m & 2m)		
	1.3C	0186
COMPOSITE PROPELLANT BASED SOLID ROCKET MOTOR with converging ends (Without nozzle & igniter connected dia 1m & 2m)		
	1.3C	0186
COMPOSITE PROPELLANT BASED SOLID ROCKET MOTOR with converging ends (with nozzle & igniter connected dia 1m & 2m)		
1.1C	0280	

GROUPING OF SUBSTANCES OR ARTICLES BY COMPATIBILITY GROUPS

Description of Substance or Article	Classification Code	UN Serial Number
Compatibility Group D		
SUBSTANCES		
5-NITROBENZOTRIAZOL	1.1D	0385
AMMONIUM NITRATE with more than 0.2%	1.1D	0222
Combustible substances, including any organic substance calculated as carbon, to the exclusion of any other added substance		
AMMONIUM NITRATE FERTILIZER, which is more liable to explode than ammonium nitrate with 0.2% combustible substances including any organic substance calculated as carbon to the exclusion of any other added substance	1.1D	0223
AMMONIUM PERCHLORATE (APS: 10 microns)	1.1D	0402
AMMONIUM PICRATE dry or wetted with less than 10% water, by mass (-)	1.1D	0004
BLACK POWDER (GUNPOWDER) COMPRESSED or BLACK POWDER (GUNPOWDER), (IN PELLETS)	1.1D	0028
BLACK POWDER (GUNPOWDER) granular or as a meal	1.1D	0027
CYCLOTRIMETHYLENETRINITRAMINE (CYCLONITE; HEXOGEN; RDX), WETTED with not less than 15% water, by mass	1.1D	0072
CYCLOTRIMETHYLENETRINITRAMINE DESENSITIZED	1.1D	0483
CYCLOTETRAMETHYLENETETRANITRAMINE (HMX; OCTOGENE), WETTED with not less than 15% water, by mass	1.1D	0226
CYCLOTETRAMETHYLENETETRANITRAMINE DESENSITIZED	1.1D	0484
CYCLOTRIMETHYLENETRINITRAMINE (CYCLONITE; HEXOGEN; RDX) AND CYCLOTETRAMETHYLENETETRANITRAMINE (HMX, OCTOGEN) MIXTURE, WETTED with not less than 15% water, by mass	1.1D	0391
or		
CYCLOTRIMETHYLENETRINITRAMINE (CYCLONITE; HEXOGEN; RDX) AND CYCLOTETRAMETHYLENETETRANITRAMINE (HMX, OCTOGEN) MIXTURES, DESENSITIZED not less than 10% Phlegmatiser by mass		

GROUPING OF SUBSTANCES OR ARTICLES BY COMPATIBILITY GROUPS

Description of Substance or Article	Classification Code	UN Serial Number
Compatibility Group D		
DIETHYLENEGLYCOL DINITRATE, DESENSITIZED with not less than 25% non-volatile, water- insoluble phlegmatizer by mass	1.1D	0075
DINITROGLYCOURIL (DINGU)	1.1D	0489
DINITROPHENOL, dry or wetted with less than 15% water, by mass (-)	1.1D	0076
DINITRORESORCINOL, dry or wetted with less than 15% water, by mass (-)	1.1D	0078
DIPICRYL SULPHIDE, dry or wetted with less than 10% water, by mass	1.1D	0401
EXPLOSIVE, BLASTING, TYPE A	1.1D	0081
EXPLOSIVE, BLASTING, TYPE B	1.1D	0082
	1.5D	0331
EXPLOSIVE, BLASTING, TYPE C	1.1D	0083
EXPLOSIVE, BLASTING, TYPE D	1.1D	0084
EXPLOSIVE, BLASTING, TYPE E	1.1D	0241
	1.5D	0332
HEXANITRODIPHENYLAMINE (DIPICRYLAMINE; HEXYL)	1.1D	0079
HEXANITROSTILBENE	1.1D	0392
HEXOTONAL (RDX/TNT/A1)	1.1D	0393
HEXOLITE (HEXOTOL), dry or wetted with less than 15% water by mass (RDX/TNT)	1.1D	0118
MANNITOL HEXANITRATE (NITROMANNINE), WETTED with not less than 40% water, or mixture of alcohol and water, by mass	1.1D	0133
NITROCELLULOSE, dry or wetted with less than 25% water (or alcohol), by mass	1.1D	0340
NITROCELLULOSE, unmodified or plasticized with less than 18% plasticizing substance, by mass	1.1D	0341
NITROGLYCERIN, DESENSITIZED, with not less than 40% non-volatile water, insoluble phlegmatizer, by mass	1.1D	0143

GROUPING OF SUBSTANCES OR ARTICLES BY COMPATIBILITY GROUPS

Description of Substance or Article	Classification Code	UN Serial Number
Compatibility Group D		
NITROGLYCERINE SOLUTION IN ALCOHOL with more than 1% but not more than 10% nitroglycerine	1.1D	0144
NITROGUANIDINE (PICRITE), dry or wetted with less than 20% water, by mass	1.1D	0282
NITROSTARCH, dry or wetted with less than 20% water, by mass	1.1D	0146
NITOTRIAZOLONE (NTO)	1.1D	0490
NITRO UREA	1.1D	0147
OCTOLITE (OCTOL), HMX/TNT dry or wetted with less than 15% water, by mass	1.1D	0266
OCTONAL (HMX/TNT/A1)	1.1D	0496
PENTAERYTHRITE TETRANITRATE (PENTAERYTHRITOL TETRANITRATE; PETN) WETTED with not less than 25% water, by mass or	1.1D	0150
PENTAERYTHRITE TETRANITRATE (PENTAERYTHRITOL TETRANITRATE; PETN) DESENSITIZED with not less than 15% phlegmatizer, by mass		
PENTAERYTHRITE TETRANITRATE (PENTAERYTHRITOL TETRANITRATE; PETN) with not less than 7% wax, by mass	1.1D	0411
PENTOLITE, dry or wetted with less than 15% water, by mass	1.1D	0151
SUBSTANCES, EXPLOSIVE, N.O.S.*	1.1D	0475
	1.4D	0480
SUBSTANCES, EXPLOSIVE, VERY INSENSITIVE (SUBSTANCES, EVI), N.O.S.*	1.5D	0482
TETRANITROANILINE	1.1D	0207
TRINITROANILINE (PICRAMIDE)	1.1D	0153
TRINITROANISOLE	1.1D	0213
TRINITROBENZENE, dry or wetted with less than 30% water, by mass	1.1D	0214
TRINITROBENZENESULPHONIC ACID	1.1D	0386

GROUPING OF SUBSTANCES OR ARTICLES BY COMPATIBILITY GROUPS

Description of Substance or Article	Classification Code	UN Serial Number
Compatibility Group D		
TRINITROBENZOIC ACID, dry or wetted with less than 30% water, by mass	1.1D	0215
TRINITROCHLOROBENZENE (PICRYL CHLORIDE)	1.1D	0155
TRINITROFLUORENONE	1.1D	0387
TRINITRO-m-CRESOL (-)	1.1D	0216
TRINITRONAPHTHALENE	1.1D	0217
TRINITROPHENETOLE	1.1D	0218
TRINITROPHENOL (PICRIC ACID), dry or wetted with less than 30% water, by mass (-)	1.1D	0154
TRINITROPHENYLMETHYLNITRAMINE (TETRYL)	1.1D	0208
TRINITRORESORCINOL (STYPHNIC ACID), dry or wetted with less than 20% water, or mixture of alcohol and water, by mass (-)	1.1D	0219
TRINITRORESORCINOL (STYPHNIC ACID) WETTED with not less than 20% water, or mixture of alcohol and water, by mass (-)	1.1D	0394
TRINITROTOLUENE (TNT), dry or wetted with less than 30% water, by mass	1.1D	0209
TRINITROTOLUENE (TNT) AND TRINITROBENZENE MIXTURE or TRINITROTOLUENE (TNT) AND HEXANITROSTILBENE MIXTURE	1.1D	0388
TRINITROTOLUENE (TNT) MIXTURE CONTAINING TRINITRONENZENE AND HEXANITROSTILBENE	1.1D	0389
TRITONAL	1.1D	0390
UREA NITRATE, dry or wetted with less than 20% water, by mass	1.1D	0220

GROUPING OF SUBSTANCE OR ARTICLES BY COMPATIBILITY GROUP

Description of Substance or Article	Classification Code	UN Serial Number
Compatibility Group D		
ARTICLES, EXPLOSIVE, N.O.S.*	1.1D	0463
	1.2D	0467
	1.4D	0352
BOMBS with bursting charge	1.1D	0034
	1.2D	0035
BOMBS, PHOTO-FLASH	1.1D	0038
BOOSTERS without detonator	1.1D	0042
	1.2D	0283
BURSTERS, explosive	1.1D	0043
CHARGES, BURSTING, PLASTICS BONDED	1.1D	0457
	1.2D	0458
	1.4D	0459
CHARGES, DEMOLITION	1.1D	0048
CHARGES, DEPTH	1.1D	0056
CHARGES, EXPLOSIVE, COMMERCIAL without detonator	1.1D	0442
	1.2D	0443
	1.4D	0444
CHARGES, SHAPED, COMMERCIAL without detonator	1.1D	0059
	1.2D	0439
	1.4D	0440
CHARGES, SHAPED, FLEXIBLE, LINEAR	1.1D	0288
	1.4D	0237
CHARGES, SUPPLEMENTARY, EXPLOSIVE	1.1D	0060
CORD, DETONATING, flexible	1.1D	0065
	1.4D	0289
CORD (FUSE), DETONATING, metal clad	1.1D	0290
	1.2D	0102
CORD (FUSE), DETONATING, MILD EFFECT, metal clad	1.4D	0104
FRACTURING DEVICES, EXPLOSIVE without detonator, for oil wells	1.1D	0099

GROUPING OF SUBSTANCES OR ARTICLES BY COMPATIBILITY GROUPS

Description of Substance or Article	Classification Code	UN Serial Number
Compatibility Group D		
FUZES, DETONATING with protective Features	1.1D	0408
	1.2D	0409
	1.4D	0410
GRENADES, hand or rifle, with bursting charge	1.1D	0284
	1.2D	0285
JET PERFORATING GUNS, CHARGED, oil well, without detonator	1.1D	0124
	1.4D	0494
MINES with bursting charge	1.1D	0137
	1.2D	0138
PROJECTILES, with bursting charge	1.1D	0168
	1.2D	0169
	1.4D	0344
PROJECTILES with burster or expelling charge	1.2D	0346
	1.4D	0347
SOUNDING DEVICES, EXPLOSIVE	1.1D	0374
	1.2D	0375
TORPEDOES with bursting charge	1.1D	0451
WARHEADS, ROCKET with bursting charge	1.1D	0286
	1.2D	0287
WARHEADS, ROCKET with burster or expelling charge	1.4D	0370
WARHEADS, TORPEDO with bursting charge	1.1D	0221

GROUPING OF SUBSTANCES OR ARTICLES BY COMPATIBILITY GROUPS

Description of Substance or Article	Classification Code	UN Serial Number
Compatibility Group E		
ARTICLES, EXPLOSIVE, N.O.S.*	1.1E	0464
	1.2E	0468
	1.4E	0471
CARTRIDGES FOR WEAPONS with bursting charge	1.1E	0006
	1.2E	0321
	1.4E	0412
ROCKETS with bursting charge	1.1E	0181
	1.2E	0182
TORPEDOES with bursting charge	1.1E	0329

GROUPING OF SUBSTANCES OR ARTICLES BY COMPATIBILITY GROUPS

Description of Substance or Article	Classification Code	UN Serial Number
Compatibility Group F		
ARTICLES, EXPLOSIVE, N.O.S.*	1.1F	0465
	1.2F	0469
	1.4F	0472
BOMBS with bursting charge	1.1F	0033
	1.2F	0291
BOMBS, PHOTO-FLASH	1.1F	0037
CARTRIDGES FOR WEAPONS with bursting charge	1.1F	0005
	1.2F	0007
	1.4F	0348
GRENADES, hand or rifle, with bursting charge	1.1F	0292
	1.2F	0293
MINES with bursting charge	1.1F	0136
	1.2F	0294
PROJECTILES with bursting charge	1.1F	0167
	1.2F	0324
PROJECTILES with burster or expelling charge	1.2F	0426
	1.4F	0427
ROCKETS with bursting charge	1.1F	0180
	1.2F	0295
SOUNDING DEVICES, EXPLOSIVE	1.1F	0296
	1.2F	0204
TORPEDOES with bursting charge	1.1F	0330
WARHEADS, ROCKET with bursting charge	1.1F	0369
WARHEADS, ROCKET with burster or Expelling charge	1.4F	0371

GROUPING OF SUBSTANCES OR ARTICLES BY COMPATIBILITY GROUPS

Description of Substance or Article	Classification Code	UN Serial Number
Compatibility Group G		
SUBSTANCES		
SUBSTANCES, EXPLOSIVE, N.O.S.*	1.1G	0476
	1.2G	0478
	1.4G	0485
ARTICLES		
AMMUNITION, with or without	1.2G	0171
burster, expelling charge or propelling	1.3G	0254
charge	1.4G	0297
AMMUNITION, INCENDIARY with or without	1.2G	0009
burster, expelling charge or propelling	1.3G	0010
charge	1.4G	0300
AMMUNITION, PRATICE	1.3C	0488
	1.4G	0362
AMMUNITION, PROOF	1.4G	0363
AMMUNITION, SMOKE with or without burster,	1.2G	0015
expelling charge or propelling charge	1.3G	0016
	1.4G	0303
AMMUNITION, TEAR-PRODUCING with burster	1.2G	0018
expelling charge or propelling charge	1.3G	0019
	1.4G	0301
ARTICLES, EXPLOSIVE, N.O.S.*	1.4G	0353
ARTICLES, PYROTECHNIC for technical	1.1G	0428
purpose	1.2G	0429
	1.3G	0430
	1.4G	0431
BOMBS, PHOTO-FLASH	1.2G	0039
	1.3G	0299
CARTRIDGES, FLASH	1.1G	0049
	1.3G	0050
CARTRIDGES, SIGNAL	1.3G	0054
	1.4G	0312
CORD, IGNITER	1.1G	0066
FIREWORKS	1.1G	0333
	1.2G	0334
	1.3G	0335
	1.4G	0336

GROUPING OF SUBSTANCES OR ARTICLES BY COMPATIBILITY GROUPS

Description of Substance or Article	Classification Code	UN Serial Num
Compatibility Group G		
FLARES, AERIAL	1.1G	0420
	1.2G	0421
	1.3G	0093
	1.4G	0403
FLARES, SURFACE	1.1G	0418
	1.2G	0419
	1.3G	0092
FLASH POWDER	1.1G	0094
	1.3G	0305
FUSE, IGNITER, tubular, metal clad	1.4G	0103
FUSE, INSTANTANEOUS, NON-DETONATING (QUICKMATCH)	1.3G	0101
FUZES, IGNITING	1.3G	0316
	1.4G	0317
GRENADES, PRACTICE, hand or rifle	1.2G	0372
	1.3G	0318
	1.4G	0452
IGNITERS	1.1G	0121
	1.2G	0314
	1.3G	0315
	1.4G	0325
PRIMERS, TUBULAR	1.3G	0319
	1.4G	0320
PROJECTILES, inert with tracer	1.3G	0424
	1.4G	0425
PROJECTILES with burster or expelling charge	1.2G	0434
	1.4G	0435
ROCKETS, LINE-THROWING	1.2G	0238
	1.3G	0240
	1.4G	0453
SIGNAL DEVICES, HAND	1.4G	0191
SIGNAL, DISTRESS, ship	1.1G	0194
	1.3G	0195

GROUPING OF SUBSTANCES OR ARTICLES BY COMPATIBILITY GROUPS

Description of Substance or Article	Classification Code	UN Serial Number
Compatibility Group G		
SIGNAL, RAIL WAY TRACK, EXPLOSIVE	1.1G	0192
	1.3G	0492
	1.4G	0493
SIGNALS, SMOKE	1.1G	0196
	1.2G	0313
	1.3G	0487
	1.4G	0197
TRACERS FOR AMMUNITION	1.3G	0212
	1.4G	0306

Description of Substance or Article	Classification Code	UN Serial Number
Compatibility Group H		
AMMUNITION, INCENDIARY, WHITE	1.2H	0243
PHOSPHORUS with burster, expelling charge or propelling charge	1.3H	0244
AMMUNITION, SMOKE, WHITE PHOSPHORUS	1.2H	0245
With burster, expelling charge or propelling charge	1.3H	2046

GROUPING OF SUBSTANCES OR ARTICLES BY COMPATIBILITY GROUPS

Description of Substance or Article	Classification Code	UN Serial Number
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Compatibility Group J

AMMUNITION, INCENDIARY, liquid or gel, with burster, expelling charge or propelling charge	1.3J	0247
BOMBS WITH FLAMMABLE LIQUID with bursting charge	1.1J 1.2J	0399 0400
ROCKET, LIQUID FUELLED with bursting charge	1.1J 1.2J	0397 0398
ROCKET MOTORS, LIQUID FUELLED	1.2J 1.3J	0395 0396
TORPEDOES, LIQUID FUELLED with inert head	1.3J	0450
TORPEDOES, LIQUID FUELLED with or without bursting charge	1.1J	0449

Description of Substance or Article	Classification Code	UN Serial Number
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Compatibility Group K

AMMUNITION, TOXIC* with burster	1.2K	0020
Expelling charge or propelling charge	1.3K	0021

GROUPING OF SUBSTANCES OR ARTICLES BY COMPATIBILITY GROUPS

Description of Substance or Article	Classification Code	UN Serial Number
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Compatibility Group L

SUBSTANCES		
SUBSTANCES, EXPLOSIVE, N.O.S.*	1.1L	0357
	1.2L	0358
	1.3L	0359
ARTICLES		
ARTICLES, EXPLOSIVES, N.O.S.*	1.1L	0354
	1.2L	0355
	1.3L	0356
ARTICLES, PYROPHORIC	1.2L	0380
CONTRIVANCES, WATER-ACTIVATED*	1.2L	0248
with burster, expelling charge or propelling charge	1.3L	0249
ROCKET MOTORS WITH HYPERGOLIC LIQUIDS	1.2L	0322
with or without expelling charge	1.3L	0250

Description or Substance or Article	Classification Code	UN Serial Number
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Compatibility Group N

ARTICLES, EXPLOSIVE, EXTREMELY INSENSITIVE (ARTICLES, EEI)	1.6N	0486
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GROUPING OR SUBSTANCES OR ARTICLES BY COMPATIBILITY GROUPS

Description of Substance or Article	Classification Code	UN Serial Num
Compatibility Group S		
ARTICLES, EXPLOSIVE, N.O.S.*	1.4S	0349
ARTICLES, PYROTECHNIC for technical purposes	1.4S	0432
CARTRIDGES FO WEAPONS, BLANK or	1.4S	0014
CARTRIDGES, SMALL ARMS, BLANK		
CARTRIDGES FOR WEAPONS, INERT PROJECTILE	1.4S	0012
or CARTRIDGES, SMALL ARMS		
CARTRIDGES, POWER DEVICE	1.4S	0323
CARTRIDGES, SIGNAL	1.4S	0405
CASES, CARTRIDGES, EMPTY, WITH PRIMER	1.4S	0055
CHARGES, BURSTING, PLASTICS BONDED	1.4S	0460
CHARGES, EXPLOSIVE, COMMERCIAL without	1.4S	0445
detonator		
CHARGES, SHAPED, COMMERCIAL without	1.4S	0441
detonator		
COMPONENTS, EXPLOSIVE TRAIN N.O.S.*	1.4S	0384
CUTTERS, CABLE, EXPLOSIVE	1.4S	0070
DETONATORS FOR AMMUNITION	1.4S	0366
DETONATORS, ELECTRIC for blasting	1.4S	0456
DETONATORS, NON-ELECTRIC for blasting	1.4S	0455
FIREWORKS	1.4S	0337
FLARES, AERIAL	1.4S	0404
FUSE, SAFETY	1.4S	0105
FUZES, DETONATING	1.4S	0367
FUZES, IGNITING	1.4S	0368
GRENADES, PRACTICE, hand or rifle	1.4S	0110
IGNITERS	1.4S	0454
LIGHTERS, FUSE	1.4S	0131

GROUPING OF SUBSTANCES OR ARTICLES BY COMPATIBILITY GROUPS

Description of Substance or Article	Classification Code	UN Serial Number
Compatibility Group S		
PRIMERS, CAP TYPE	1.4S	0044
PRIMERS, TUBULAR	1.4S	0376
PROJECTILES, inert with tracer	1.4S	0345
RELEASE DEVICES, EXPLOSIVE	1.4S	0173
RIVETS, EXPLOSIVE	1.4S	0174
SIGNAL DEVICES, HAND	1.4S	0373
SIGNAL, RAILWAY TRACK, EXPLOSIVE	1.4S	0193
SUBSTANCES, EXPLOSIVE, N.O.S.*	1.4S	0481

APPLICATION FOR CLASSIFICATION OF MILITARY EXPLOSIVES

Part A is to be completed by the applicant. Each paragraph and sub-paragraph must be completed, the words “not applicable” are to be inserted where appropriate. The form in triplicate together with the drawings required under 1 (c) and 5 (a), should be sent to the Secretary, STEC, CFEES, S K Mazumdar Marg, Timarpur, Delhi –110054.

PART A

1. Name of Explosives*.

(a) State the Service designation to be used on the outer package of the ammunition or explosive substance, or on an article which is unpacked, as applicable, or the development designation.
.....

(b) Give the design number of the drawing showing the general arrangement of the method of filling the ammunition or in the case of bulk-packed explosive substances, give the number of the specification, and attach copies.
.....

(c) If the explosive* is a component of a weapon, state the name of the weapon:
.....

*The term “explosives” includes ammunition

***“Military explosive” means any article substance, combination or unit load to which these Regulations apply.

2. Supply Position

(a) The explosives

(i) has been approved by the appropriate AHSP for the service concerned,
or

(ii) is still in the developing stage.
.....

(b) If the explosive is imported or is of foreign design, state the classification given by the country of origin.
.....

(c) Has this or a similar item, been classified already? If so, state the classification given:
.....

3. Explosives Content

Give the following details:

Names of explosives components comprising the ammunition to Classified	Name and net explosives quantity of each substance contained in the components in Col (a)	
	Name	Kg
(a)	(b)	(c)

4. Weight of Ammunition

Give the following details. (See note 1)

- (a) weight of filled round (or corresponding assembly).....
- (b) weight of filled projectile or other a

5. Packaging

Give the following details (See Note 2)

- (a) Name of package which has been approved for the explosives (attach a design drawing or sketch showing the general arrangement) and give details of the inner and outer packages

.....

- (b) Number of rounds (or corresponding units) to be contained in the package
- (c) weight.....of.....fill package.....
- (d) weight of explosive substance in package.....

6. Means of Initiation

Tick and initial whichever of the following statements applies, so that the STEC can assign the appropriate UN Compatibility Group :

- (a) There is no means of initiation in the package/pallet.....
- (b) There is a means of initiation in the package/pallet, but it is separately packed so as to preclude detonation of the ammunition in the event of accidental functioning of the device.....
- (c) A device for initiation of the ammunition is assembled to it but there are protective features as follows:.....
- (d) A device for initiation of the ammunition is assembled to it and there are no special safeguards to prevent detonation of the ammunition in the event of accidental functioning of the device.....
- (e) It is not known if there is a means of initiation or whether such device has effective safeguards.

7. Rockets and Rocket Motors

Tick and initial whichever of the following conditions applies, so that the STEC can assess the likelihood of significant flight in an accident.

(a) The items are effectively mechanically restrained from significant flight by strapping or other means embodied in the packaging design.....

OR

(b) The items embody one or more of the following safeguards:

(i) The EED incorporated in the ignition system are effectively protected against stray currents from any source and the venture are effectively protected to prevent accidental ignition.....

(ii) Percussion ignition systems. The percussion devices are effectively protected.....

(iii) The firing route from igniter to propellant charge is interrupted by a mechanical shutter or by displacement of part of the explosives train and the venture effectively capped to prevent accidental ignition.....

(iv) The items are fitted with aerodynamic “spoilers” or better still, flight “spoilers” of the approved design.....

8. Other Dangerous Goods

(a) Does the store or package contain any other dangerous goods in addition to the Class 1 Explosives?
.....

(b) If the answer to para 8. (a) is YES, provide details of the other dangerous goods below :

Name of dangerous goods (a)	Quantity (b)	Class and UN Serial No.(if known) (c)

9. Suggest a suitable authorized UN Proper Shipping Name and UN Serial Number from the International System of Classification, and state them here.

Date.....

Signature of Applicant.....

Name of Applicant.....

Designation.....

Name of the Unit/Establishment

NOTES

The following notes may be of assistance in completing the form :

1. Para 4
The weight of ammunition without the package is required for determination of charge weight ratio and percentage of explosive content for assessment of hazards.
2. Para 5
 - (a) The material of the package should always be specified (eg wood/steel/plastic).
 - (b) Sufficient information about packaging weights is essential to determine the weight of explosive substance in the package expressed as a percentage of the weight of the filled package and the net mass weight of the packaging. A classification cannot be made without this information.

PART B (to be completed by STEC). Classification is as follows:

1. STEC classificationPermanent/Temporary
2. Details:
 - (a) Classification Code.....
 - (b) UN Serial Number and Proper Shipping Name.....
 - (c) Packaging Details.....
3. Remarks (if any).....

Date.....
.....
Director CFEES

Glossary

AMMUNITION

Generic term related mainly to articles of military application consisting of all kind of bombs, grenades, rockets, mines, projectiles and other similar devices or contrivances.

AMMUNITION, ILLUMINATING with or without burster, expelling charge or propelling charge.

Ammunition designed to produce a single source of intense light for lighting up an area. The term includes illuminating cartridges, grenades and projectiles; and illuminating and target identification bombs. The term excludes the following articles which are listed separately: CARTRIDGES, SIGNAL; SIGNAL DEVICES, HAND; SIGNALS, DISTRESS; FLARES, AERIAL and FLARES, SURFACE.

AMMUNITION, INCENDIARY

Ammunition containing incendiary substance which may be a solid, liquid or gel including white phosphorus. Except when the composition is an explosive per se, it also contains one or more of the following: a propelling charge with primer and igniter charge; a fuze with burster or expelling charge. The term includes:

AMMUNITION, INCENDIARY, liquid or gel, with burster, expelling charge or propelling charge;

AMMUNITION, INCENDIARY, with or without burster, expelling charge or propelling charge;

AMMUNITION, INCENDIARY, WHITE PHOSPHORUS with burster, expelling charge or propelling charge.

AMMUNITION, PRACTICE

Ammunition without a main bursting charge, containing a burster or expelling charge. Normally it also contains a fuze and a propelling charge. The term excludes the following articles which are listed separately: GRENADES, PRACTICE.

AMMUNITION, PROOF

Ammunition containing pyrotechnic substances, used to test the performance or strength of new ammunition, weapon component or assemblies.

AMMUNITION, SMOKE

Ammunition containing smoke-producing substance such as chlorosulphonic acid mixture, titanium tetrachloride or white phosphorus; or smoke-producing pyrotechnic composition based on hexachloroethane or red phosphorus. Except when the substance is an explosive *per se*, the ammunition also contain one or more of the following: a propelling charge with primer and igniter charge; a fuze with burster or expelling charge. The term includes grenades, smoke but excludes SIGNALS, SMOKE which are listed separately. The term includes:

AMMUNITION, SMOKE with or without burster, expelling charge or propelling charge; AMMUNITION, SMOKE, WHITE PHORPHORUS with burster, expelling charge or propelling charge.

AMMUNITION, TEAR-PRODUCING with burster, expelling charge or propelling charge.

Ammunition containing tear-producing substance. It also contains one or more of the following: a pyrotechnic substance; a propelling charge with primer and igniter charge; a fuze with burster or expelling charge.

AMMUNITION, TOXIC with burster, expelling charge or propelling charge

Ammunition containing toxic agent. It also contains one or more of the following: a pyrotechnic substance; a propelling charge with primer and igniter charge a fuze with burster or expelling charge.

ARTICLES, EXPLOSIVE, EXTREMELY INSENSITIVE (ARTICLES, EEI)

Articles that contain only extremely insensitive detonating substances and which demonstrate a negligible probability of accidental initiation or propagation (under normal conditions of transport) and which have passed Test Series 7.

ARTICLES, PYROPHORIC

Articles which contain a pyrophoric substance (capable of spontaneous ignition when exposed to air) and an explosive substance or component. The term excludes articles containing white phosphorus.

ARTICLES, PYROTECHNIC for technical purposes

Articles which contain pyrotechnic substance and are used for technical purposes such as heat generation, gas generation, theatrical effects, etc. The term excludes the following articles which are listed separately: all ammunition; CARTRIDGES, SIGNAL; CUTTER, CABLE, EXPLOSIVE; FIREWORKS; FLARES, AERIAL; FLARES, SURFACE; RELEASE DEVICES, EXPLOSIVE; RIVETS, EXPLOSIVE; SIGNALDEVICES, HAND; SIGNALS DISTRESS; SIGNALS, RAILWAY TRACK, EXPLOSIVE; SIGNALS, SMOKE.

BLACK POWDER (GUNPOWDER)

Substance consisting of an intimate mixture of charcoal or other carbon and either potassium nitrate or sodium nitrate, with or without sulphur. It may be meal, granular, compressed or palletized.

BOMBS

Explosive articles which are dropped from aircraft. They may contain a flammable liquid with bursting charge, a photo-flash composition or a bursting charge. The term excludes torpedoes (aerial) and includes:

BOMBS, PHOTO-FLASH;

BOMBS WITH bursting charge;

BOMBS WITH FLAMMABLE LIQUID with bursting charge.

BOOSTERS

Articles consisting of a charge of detonating explosive with or without means of initiation. They are used to increase the initiating power of detonators or detonating cord.

BURSTERS, explosives

Articles consisting of a small charge of explosive used to open projectiles, or other ammunition in order to disperse their contents.

CARTRIDGES, BLANK

Articles which consist of a cartridge case with a centre or rim fire primer and a confined charge of smokeless or black powder but no projectile. Used for training, saluting or in starter pistols, etc.

CARTRIDGES, FLASH

Articles consisting of a casing, a primer and flash powder, all assembled in one piece ready for firing.

Cartridges for Weapons

(1) Fixed (assembled) or semi-fixed (partially-assembled) ammunition designed to be fired from weapons. Each cartridge includes all the components necessary to function the weapon once. The name and description should be used for small arms cartridges that cannot be described as “cartridges, Small Arms”. Separate Loading ammunition is included under this name and description when the propelling charge and projectile are packed together (see also “Cartridges, Blank”)

(2) Incendiary, smoke, toxic and tear-producing cartridges are described in this Glossary under AMMUNITION, INCENDIARY etc.

CARTRIDGES FOR WEAPONS, INERT PROJECTILE

Ammunition consisting of a projectile without bursting charge but with a propelling charge. The presence of a tracer can be disregarded for classification purposes provided that the predominant hazard is that of the propelling charge.

CARTRIDGES, OIL WELL

Articles consisting of a casing of thin fibre, metal or other material containing only propellant which projects a hardened projectile. The term excludes the following articles which are listed separately:
CHARGES, SHAPED, COMMERCIAL.

CARTRIDGES, POWER DEVICE

Articles designed to accomplish mechanical actions. They consist of a casing with a charge of deflagrating explosive and a means of ignition. The gaseous products of the deflagration produce inflation, or linear or rotary motion, or activate diaphragms, valves or switches for project fastening devices or extinguishing agents.

CARTRIDGES, SIGNAL

Articles designed to fire coloured flares or other signals from signal pistols etc.

CARTRIDGES, SMALL ARMS

Ammunition consisting of a cartridge case fitted with a centre or rim fire primer and containing both a propelling charge and a solid projectile. They are designed to be fired in weapons of calibre not large than 19.1 mm. Shot-gun cartridges of any calibre are included in this description. The term excludes: CARTRIDGES, SMALL ARMS, BLANK and some small arms cartridges which are listed under CARTRIDGES FOR WEAPONS, INERT PROJECTILE.

CASES, CARTRIDGE, EMPTY, WITH PRIMER

Articles consisting of a cartridge case made from metal, plastics or other non-flammable material, in which the only explosive component is the primer.

CASES, COMBUSTIBLE, EMPTY WITHOUT PRIMER

Articles consisting of cartridge cases made partly or entirely from nitrocellulose.

CHARGE, BURSTING

Articles consisting of a charge of detonating explosive such as hexolite, or octolite or plastics bonded explosive designed to produce effect by blast or fragmentation.

CHARGES, DEMOLITION

Articles containing a charge of a detonating explosive in a casing of fibre board, plastics, metal or other material. The term excludes the following articles which are listed separately: bombs, mines, etc.

CHARGES, DEPTH

Articles consisting of a charge of detonating explosive contained in a drum or projectile. They are designed to detonate under water.

CHARGE, EXPELLING

A charge of deflagrating explosive designed to eject the payload from the parent articles without damage.

CHARGES, EXPLOSIVE, COMMERCIAL without detonator

Articles consisting of a charge of detonating explosive without means of initiation used, for explosive welding, jointing, forming and other metallurgical processes

CHARGES, EXPLOSIVE, COMMERCIAL without detonator

Articles consisting of a propellant charge in any physical form with or without a casing, for use as a component of rocket motors or for reducing the drag of projectiles.

CHARGE, PROPELLING FOR CANNON

Articles consisting of a propellant charge in any physical form, with or without a casing, for use in a cannon.

CHARGES, SHAPED, COMMERCIAL without detonator

Articles consisting of a casing containing a charge of detonating explosive with a cavity lined with rigid material, without means of initiation. They are designed to produce a powerful, penetrating jet effect.

CHARGES, SHAPED, FLEXIBLE, LINEAR

Articles consisting of a V-shaped core of a detonating explosive clad by a flexible metal sheath

CHARGES, SUPPLEMENTARY, EXPLOSIVE

Articles consisting of a small removable booster used in the cavity of a projectile between the fuze and the bursting charge.

COMPONENTS, EXPLOSIVE TRAIN, N.O.S.

Articles containing an explosive designed to transmit the detonation or deflagration within an explosive train.

CONTRIVANCES, WATER-ACTIVATED with burster, expelling charge or propelling charge

Articles whose functioning depends upon physico-chemical reaction of their contents with water.

CORD, DETONATING, flexible

Articles consisting of a core of detonating explosive enclosed in spun fabric, with plastics or other covering unless the spun fabric is sift-proof.

CORD (FUSE), DETONATING, metal clad

Articles consisting of a core of detonating explosive clad by a soft metal tube with or without protective covering. When the core contains a sufficiently small quantity of explosive, the words “MILD EFFECT” are added.

CORD, IGNITER

Articles consisting of textile yarns covered with black powder or another fast burning pyrotechnic composition and of a flexible protective covering; or it consists of a core of black powder surrounded by a flexible woven fabric. It burns progressively along its length with an external flame and is used to transmit ignition from a device to charge or primer.

CUTTERS, CABLE, EXPLOSIVE

Articles consisting of a knife-edged device which is driven by a small charge of deflagrating explosive into an anvil.

DETONATOR ASSEMBLIES, NON-ELECTRIC for blasting

Non-electric detonators assembled with and activated by such means as safety fuse, shock tube, flash tube or detonating cord. They may be of instantaneous design or incorporate delay elements. Detonating relays incorporating detonating cord are included. Other detonating relays are included in “Detonators, non-electric”.

DETONATORS

Articles consisting of a small metal or plastics tube containing explosive such as lead azide, PETN or combinations of explosives. They are designed to start a detonation train. They may be constructed to detonate instantaneously, or may contain a delay element. The term includes:

DETONATORS FOR AMMUNITION and DETONATORS for blasting, both ELECTRIC and NON-ELELCTRIC

Detonating relays without flexible detonating cord are included.

ENTIRE LOAD AND TOTAL CONTENTS

The phrases “entire load” and “total con that the practical hazard should be Assessed by assuming simultaneous explosion of the whole of the explosive Content of the load or package.

EXPLODE

The verb used to indicate those explosive effects capable of endangering life and property through blast, heat and projection of missiles. It encompasses both deflagration and detonation.

EXPLOSION OF THE TOTAL CONTENTS

The phrase “explosion of the total contents” is used in testing a single article or Package or a small stack of articles or packages.

EXPLOSIVE, BLASTING

Detonating explosive substances used in mining, construction and similar tasks. Blasting explosives are assigned to one of five types. In addition to the ingredients listed blasting explosives may also contain inert components such as kieselguhr, and minor ingredients such as coloring agents and stabilizers.

EXPLOSIVE, BLASTING, TYPE B

Substances consisting of (a) a mixture of ammonium nitrate or other inorganic nitrates with an explosive such as trinitrotoluene, with or without other substances such as wood-meal and aluminium powder, or (b) a mixture of ammonium nitrate or other inorganic nitrates with other combustible substances which are not explosive ingredients. Such explosives should not contain nitroglycerine, similar liquid organic nitrates, or chlorates.

EXPLOSIVE BLASTING, TYPE A

Substances consisting of liquid organic nitrates such as nitroglycerine or a mixture of such ingredients with one or more of the following; nitrocellulose, ammonium nitrate or other inorganic nitrates; aromatic nitro-derivatives, or combustible materials, such as wood-meal and aluminium powder. Such explosives should be in powdery, gelatinous or elastic form.

EXPLOSIVE, BLASTING, TYPE C

Substances consisting of a mixture of either potassium or sodium chlorate or potassium sodium or ammonium perchlorate with organic nitro-derivatives or combustible materials such as wood-meal or aluminium powder or a hydrocarbon. Such explosives should not contain nitroglycerine or similar liquid organic nitrates.

EXPLOSIVE, BLASTING, TYPE D

Substances consisting of a mixture of organic nitrated compounds and combustible materials such as hydrocarbons and aluminium powder. Such explosives should not contain nitroglycerine, similar liquid organic nitrates, chlorates or ammonium nitrate. The term generally includes plastic explosives.

EXPLOSIVES, BLASTING, TYPE E

Substances consisting of water as an essential ingredient and high proportions of ammonium nitrate or other oxidizers, some or all of which are in solution. The other constituents may include nitro-derivatives such as trinitrotoluene, hydrocarbons or aluminium powder.

The term includes explosives, emulsion; explosives slurry and explosives, water gel.

EXPLOSIVE DEFLAGRATING

A substance, e.g. propellant, which reacts by deflagration rather than detonation when ignited and used in its normal manner.

EXPLOSIVE, DETONATING

A substance which reacts by detonation rather than deflagration when initiated and used in its normal manner.

EXPLOSIVE, EXTREMELY INSENSITIVE DETONATING SUBSTANCE (EIDS)

A substance which, although capable of sustaining a detonation, has demonstrated through tests that it is so insensitive that there is very little probability of accidental initiation.

EXPLOSIVE, PRIMARY

Explosive substance manufactured with a view to producing a practical effect by explosion which is very sensitive to heat, impact or friction and which, even in very small quantities, either detonates or burns very rapidly. It is able to transmit detonation (in the case of initiating explosive) or deflagration to secondary explosives close to it. The main primary explosives are mercury fulminate, lead azide and lead styphnate.

EXPLOSIVE, SECONDARY

Explosive substance which is relatively insensitive (when compared to primary explosives), which is usually initiated by primary explosives with or without the aid of boosters or supplementary charges. Such an explosive may react as a deflagrating or as a detonating explosive.

FIREWORKS

Pyrotechnic articles designed for entertainment.

FLARES

Articles containing pyrotechnic substance which are designed for use to illuminate, identify, signal or warn. The term includes:

FLARES, AERIAL;
FLARES, SURFACE.

FLASH POWDER

Pyrotechnic substance which, when ignited, produces an intense light.

FRACTURING DEVICES, EXPLOSIVE for oil wells, without detonator

Articles consisting of a charge of detonating explosive contained in a casing without means of initiation. They are used to fracture the rock around a drill shaft to assist the flow of crude oil from the rock.

FUSE/FUZE (ENGLISH TEXT ONLY)

Although these two words have a common origin (French fuse, fusil) and are sometimes considered to be different spellings, it is useful to maintain the convention that fuse refers to a cord-like igniting device whereas fuze refers to a device used in ammunition which incorporates mechanical, electrical, chemical or hydrostatic components to initiate a train by deflagration or detonation.

FUZE, IGNITER, TUBULAR, METAL CLAD

Article consisting of a metal tube with a core of deflagrating explosive.

FUSE, INSTANTANEOUS, NON-DETONATING (QUICKMATCH)

Article consisting of cotton yarns impregnated with fine black powder (Quick .match) it burns with an external flame and is used in ignition trains for fireworks, etc.

FUZE, SAFETY

Article consisting of a core of fine grained black powder surrounded by a flexible woven fabric with one or more protective outer coverings. When ignited, it burns at a predetermined rate without any external explosive effect.

FUZES

Articles designed to start a detonation in ammunition. They incorporate mechanical, electrical, and chemical or hydrostatic components and generally protective features. The term includes:

FUZES, DETONATING;

FUZES, DETONATING with protective features;

FUZES, IGNITING

GRENADES, HAND OR RIFLE

Articles which are designed to be thrown by hand or to be projected by a rifle. The term includes:

GRENADES, hand or rifle, with bursting charge;

GRENADES, PRACTICE, hand or rifle.

The term excludes grenades, smoke which are listed under AMMUNITION, SMOKE.

IGNITERS

Articles containing one or more explosive substances used to start deflagration in an explosive train. They may be actuated chemically, electrically or mechanically. This term excludes the following articles which are listed separately: CORD, IGNITER; FUZE, IGNITER; FUSE, INSTANTANEOUS. NON-DETONATING; FUZES, IGNITING; LIGHTERS, FUSE; PRIMERS, CAP TYPE; PRIMERS, TUBULAR.

MEANS OF IGNITION

A general term used in connection with the methods employed to ignite a deflagrating train of explosive or pyrotechnic substances (for example a primer for a propelling charge, an igniter for a rocket motor; an igniting fuze).

MEANS OF INITIATION

(1) A device intended to cause the detonation of an explosive (for example: detonator; detonator for ammunition; detonating fuze).

(2) The term “with its own means of initiation” means that the contrivance has its normal initiating device assembled to it and this device is considered to present a significant risk during transport but not one great enough to be unacceptable. The term does not apply, however, to a contrivance packed together with its means of initiation provided the device is packaged so as to eliminate the risk of causing detonation of the contrivance in the event of accidental functioning of the initiating device. The means of initiating can even be assembled to the contrivance provided there are protective features such that the device is very unlikely to cause detonation of the contrivance in conditions which are

associated with transport.

(3) For the purposes of classification any means of initiation without two effective protective features should be regarded as Compatibility Group B; an articles with its own means of initiation, without two effective protective features, would be compatibility Group F. On the other hand a means of initiation which itself possesses two effective protective features would be Compatibility Group D; and an article with a means of initiation which possesses two effective protective features would be Compatibility Group D or E. Means of initiation adjudged as having two effective protective features should have been approved by the Competent National Authority. A common and effective way of achieving the necessary degree of protection is to use a means of initiation which incorporates two or more independent safety features.

JET PERFORATING GUNS, CHARGED, Oil well, without detonator

Articles consisting of a steel tube or metallic strip, into which are inserted shaped charges connected by detonating cord, without means of initiation.

LIGHTERS, FUSE

Articles of various designs actuated by friction, percussion or electricity and used to ignite safety use.

MASS EXPLOSION

Explosion which affects almost the entire load virtually instantaneously.

MINES

Articles consisting normally of metal or composition receptacles and a bursting charge. They are designed to be operated by the passage of ships, vehicles or personnel. The term includes "Bangalore torpedoes".

POWDER CAKE (POWDER PASTE), WETTED

Substance consisting of nitrocellulose impregnated with not more than 60% of nitroglycerine or other liquid organic nitrates or a mixture of these.

POWDER, SMOKELESS

Substance based on nitrocellulose used as propellant. The term includes propellants with a single base (nitrocellulose (NC) alone), those with a double base (such as NC and nitroglycerine (NG) and those with a triple base (such as NC/NG/nitro guanidine). Cast, pressed or bag-charges of smokeless powder are listed Under “CHARGES, PROPELLING” OR “CHARGES, PROPEELIN FOR CANNON”.

PRIMERS, CAP TYPE

Articles consisting of a metal or plastics cap containing a small amount of primary explosive mixture that is readily ignited by impact. They serve as igniting elements in small arms cartridges, and in percussion primers for propelling charges.

PRIMERS, TUBULAR

Articles consisting of a primer for ignition an auxiliary charge of deflagrating explosive such as black powder used to ignite the propelling charge in a cartridge case for cannon, etc.

PROJECTILES

Articles such as a shell or bullet which are projected from a cannot or other artillery gun, rifle or other small arms. They may be inert, with or without tracer, or may contain a burster or expelling charge or a bursting charge. The term includes:

PROJECTILES, inert, with tracer;
PROJECTILES with burster or expelling charge;
PROJECTILES with bursting charge.

PROPELLANTS

Deflagrating explosive used for propulsion or for reducing the drag of projectiles.

PROPELLANTS, LIQUID

Substances consisting of a deflagrating liquid explosive, used for propulsion.

PROPELLANTS, SOLID

Substances consisting of a deflagrating solid explosive, used for propulsion.

RELEASE DEVICES, EXPLOSIVE

Articles consisting of a deflagrating solid explosive, used for propulsion.

RELEASE DEVICES, EXPLOSIVE

Articles consisting of a small charge of explosive with means of initiation. They sever rods or links to release equipment quickly.

ROCKET MOTORS

Articles consisting of a solid, liquid or hypergolic fuel contained in a cylinder fitted with one or more nozzles. They are designed to propel a rocket or a guided missile. The term includes.

ROCKET MOTORS;

ROCKET MOTORS WITH HYPERGOLIC LIQUIDS with or without expelling charge;

ROCKET MOTORS, LIQUID FUELLED.

ROCKETS

Articles consisting of a rocket motor and a payload which may be an explosive warhead or other device. The term includes guided missiles and:

ROCKETS, LINE-THROWING;

ROCKETS, LIQUID FUELLED with bursting charge;

ROCKETS with bursting charge;

ROCKETS with expelling charge;

ROCKETS with inert head.

SIGNALS

Articles containing pyrotechnic substances designed to produce signals by means of sound, flame or smoke or any combinations thereof. The term includes:

SIGNAL DEVICES, HAND;

SIGNAL, DISTRESS, ship;

SIGNALS, RAILWAY TRACK, EXPLOSIVE;

SIGNAL, SMOKE.

SOUNDING DEVICES, EXPLOSIVE

Articles consisting of a charge of detonating explosive. They are dropped from ships and function when they reach a predetermined depth or the sea-bed.

SUBSTANCES, EXPLOSIVE, VERY INSENSITIVE (SUBSTANCES, EVI)N.O.S.

Substances which present a mass explosion hazard but which are so insensitive that there is very little probability of initiation, or of transition from burning to detonation (under normal conditions of transport) and which have passed Test Series-5.

TORPEDOES

Articles containing an explosive or non-explosive propulsion system and designed to be propelled through water. They may contain an inert head or a warhead. The term includes:

TORPEDOES, LIQUID FUELLED with inert head;
TORPEDOES, LIQUID FUELLED with or without bursting charge;
TORPEDOES with bursting charge.

TRACERS FOR AMMUNITION

Sealed articles containing pyrotechnic substances, designed to reveal the trajectory.

Warheads

Articles consisting of detonating explosives. They are designed to be fitted to a rocket, guided missile or torpedo. They may contain a burster or expelling charge or bursting charge. The term includes:

WARHEADS, ROCKET with burster or expelling charge;

WARHEADS, ROCKET with bursting charge;

WARHEADS, TORPEDO with bursting charge.