

**OFFICIAL MEXICAN STANDARD  
NOM-025-SCT2/1994  
SPECIAL PROVISIONS FOR  
HAZARDOUS SUBSTANCES AND MATERIALS  
OF CLASS 1 EXPLOSIVES.**

**1. PURPOSE.**

The purpose of this Official Mexican Standard is to identify and classify the hazardous substances, materials and wastes, as well as to set forth the special provisions for the packages and packagings of Class 1 explosives, with a view to protecting the lines of communication and the safety of their users.

**2. APPLICABILITY.**

This Official Mexican Standard applies compulsorily to the shippers, carriers and consignees of the hazardous substances, materials and wastes of Class 1 Explosives, whenever these are transported over the general lines of land communication.

**3. REFERENCES.**

For the proper implementation of this Official Mexican Standard, it is necessary to consult the following Official Mexican Standards:

NOM-002-SCT2/1994	LISTING OF THE MOST COMMONLY TRANSPORTED HAZARDOUS SUBSTANCES AND MATERIALS.
NOM-003-SCT2/1994	CHARACTERISTICS OF LABELS OF PACKAGES AND PACKAGINGS INTENDED FOR THE TRANSPORT OF HAZARDOUS SUBSTANCES AND WASTES.
NOM-004-SCT2/1994	SYSTEM FOR THE IDENTIFICATION OF UNITS INTENDED FOR THE TRANSPORT OF HAZARDOUS MATERIALS AND WASTES.
NOM-009-SCT2/1994	COMPATIBILITY FOR THE STORAGE AND TRANSPORT OF HAZARDOUS SUBSTANCES, MATERIALS AND WASTES OF CLASS 1 EXPLOSIVES.

NOM-0A-CRP-001/93

SETTING FORTH THE CHARACTERISTICS OF HAZARDOUS WASTES,  
THE LISTING OF HAZARDOUS WASTES, AND THE  
ENVIRONMENTAL TOXICITY LIMITS FOR HAZARDOUS  
WASTES.**4. DEFINITIONS.**

Ammunition.- This generic term relates to articles of military use consisting of every type of bombs, grenades, rockets, projectiles and other similar devices or contrivances.

Illuminating ammunition with or without dispersive,[sic] expelling or propelling charges.- This is 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 included in another list: signal cartridges; distress signals; illuminating flares; surface flares; and aerial flares.

Incendiary ammunition.- This is ammunition containing incendiary substances, which can be liquid, solid or in gel form, including white phosphorus. Except when the composition is an explosive per se, it can also contain one or more of the following articles: a propelling charge with a primer and an igniter charge; a fuze with expelling charges. The term includes:

Incendiary, liquid or gel-form ammunition, with dispersive, expelling or propelling charges;

Incendiary ammunition, with or without dispersive, expelling or propelling charges;

Incendiary ammunition, white phosphorus, with dispersive, expelling or propelling charge.

Practice ammunition.- This is ammunition with a main explosive charge, containing an expelling charge or an explosive. Normally, this ammunition also contains a fuze and a propelling charge. The term excludes the following articles, which are included in a separate list: Practice grenades.

Proof ammunition.- This is ammunition containing pyrotechnic substances, used to test the performance or strength of new ammunition, weapon components, or weapon armors.[sic]

Smoke ammunition.- This is ammunition containing smoke-producing substances 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, the ammunition can also contain one or more of the following components: a propelling charge with primers and igniter charge; a fuze with expelling charge or explosives. The term includes smoke grenades, but excludes smoke signals, which are listed separately. The term includes:

Smoke ammunition with or without dispersive, expelling or propelling charge;

Smoke ammunition with white phosphorus as dispersive, expelling or propelling charge.

Tear-producing ammunition, with dispersive, expelling or propelling charge.- This is ammunition containing tear-producing substances. This ammunition also contains one or more of the following elements: pyrotechnic substances; a propelling charge with a primer and igniter charge; a fuze with a dispersive or expelling charge.

Toxic ammunition with explosives, expelling or propelling charge.- This is ammunition containing toxic agents. This ammunition also contains one or more of the following elements: a pyrotechnic substance, a propelling charge with primers and igniter charge; a fuze with dispersive or expelling charge.

Explosive, extremely insensitive, articles (EEI articles).- These are articles which contain only extremely insensitive detonating substances and which demonstrate an insignificant probability of accidental initiation or propagation (under normal conditions of transport) and which have passed the 7 series of tests.[sic]

Pyrophoric articles.- These are articles which contain pyrophoric substances (capable of spontaneous ignition when exposed to air) and an explosive substance or component. The term excludes articles containing white phosphorus.

Pyrotechnic articles for technical uses.- These are articles which contain pyrotechnic substances and are used for technical applications such as heat generation, gas generation, stage effects, etc. The term excludes the following articles, which are listed separately: all ammunition, signal cartridges, fireworks, cable cutters, aerial flares, surface flares, explosive release devices, rivet with explosives, hand pyrotechnic devices, distress signals, explosive railroad track signals, and smoke signals.

Black powder (gunpowder).- These are substances which consist of an intimate mixture of charcoal or other carbon and potassium nitrate or sodium nitrate, with or without sulphur. It may be in the form of granule, tablet,[sic] seed meal,[sic] or in the form of nodules.

Bombs.- These are explosive articles which are hurled [sic] from aircraft. These articles may contain a flammable liquid with an explosive charge, or an illuminating mixture for photographic purposes.[sic] The term excludes torpedoes (aerial) and includes:

Illuminating bombs for photographic purposes;

Bombs with explosive charge; and

Bombs with flammable liquids with explosive charges.

Detonators.-[sic] These are articles which consist of a charge of detonating explosives with or without means of initiation. They are used to increase the initiating power of detonators or detonating cords.

Dispersive charges.- These are articles consisting of a small charge of explosives used to burst projectiles or other ammunition in order to disperse their contents.

Blank cartridge.- These are articles which consist of a cartridge with a primer in the central part or in the rim and of a confined charge of smokeless or black powder, but without projectile. This cartridge is used for training, for saluting, or in starter pistols, etc.

Flash cartridges.- These are articles which consist of a casing, flash powder, and a primer, all assembled in one piece ready for firing.

Cartridges for weapons.- (1) These are fixed (assembled) or semi-fixed (partially assembled) ammunition, designed to be fired with the weapons. Each cartridge includes all the components necessary to activate the weapon only once. The name and description must be used for cartridges of small-caliber arms that cannot be described as "cartridges for small-caliber arms". Separate loading ammunition is included under this name and description, when the propelling charge and the projectile are packed together (see also "Blank cartridges"). (2) Tear-producing, toxic, smoke, and incendiary cartridges are described in these definitions under the heading of Incendiary ammunition, etc.

Cartridges for weapons with inert projectiles.- These are ammunition consisting of a projectile without an explosive charge but with a propelling charge. Provided that the predominant hazard is that of the propelling charge, the presence of a tracer can be disregarded for classification purposes.

Cartridges for oil wells.- These are articles consisting of a casing of thin fiber, metal or other material containing only a propellant which projects a hardened-steel projectile. The term excludes the following articles which are in a separate list:

Activating cartridge.- These are articles designed to fulfill [sic] mechanical effects. These articles consist of a casing with a charge or a deflagrating explosive and a means of ignition. The gaseous products of the deflagration produce inflammation, linear or rotary motions, or they activate diagrams,[sic] devices, valves, switches, or they project fastening devices or extinguishing agents.

Signal cartridges.- These are articles designed to fire colored flares or other signals, such as the one of signal pistols, etc.

Cartridges for small-caliber arms.- These are ammunition consisting of a case for cartridges, which case is fitted with a primer in the central part or in the rim and contains both a propelling charge and a solid projectile. These cartridges are designed to be used in arms having a caliber not greater than 19.1 mm. Shooting arms of any caliber are included in this description. The term excludes: blank cartridges for small-caliber arms, which are listed separately in Standard

NOM-002-SCT2-94; and some cartridges for small-caliber arms, which are listed under the heading of Cartridges for weapons with inert projectile.

Cases for empty cartridges with primer.- These are articles consisting of a case for cartridges, made of metal, plastic or other non-flammable materials, in which the only explosive component is the primer.

Cases for empty fuels,[sic] without primer.- These are articles consisting of cases for cartridges, made partly or entirely from nitrocellulose.

Explosive charges.- These are articles consisting of a charge of detonating explosives such as hexolite, octolite or plastics-bonded explosives, designed to produce effects by blast or fragmentation.

Demolition charges.- These are articles containing a charge of detonating explosives in a casing of fiberboard, plastic, metal or other material. The term excludes the following articles which are listed separately: bombs, mines, etc.

Depth charges.- These are articles consisting of a charge of detonating explosives contained in a drum or projectile. These articles are designed to detonate under water.

Expelling charges.- This is a charge of deflagrating explosives designed to hurl [sic] the payload of the parent article without damage.

Explosive charges for civil uses without detonator.- These are articles consisting of a charge of detonating explosives without means of initiation, used for the welding, jointing, forming of explosives and other metallurgical processes.

Propelling charges.- These are articles consisting of a propellant charge in any physical form, with or without a casing, to be used as a component of the rocket motors or to reduce the drag of projectiles.

Propelling charges for cannons.- These are articles consisting of a propellant charge, in any physical form, without or without a casing, to be used in cannons.

Shaped charges for civil uses without detonators.- These are articles consisting of a casing containing a charge of detonating explosives with a cavity lined with rigid material, with means of initiation. These are designed to produce a powerful jet effect for perforating purposes.

Shaped flexible linear charges.- These are articles consisting of a V-shaped core of a detonating explosive, lined with a flexible metal sheath.

Supplementary explosive charges.- These are articles consisting of a small removable detonator, used in the cavity of a projectile between the fuze and the explosive charge.

Components for the linkage of explosions, N.O.S.\*- These are articles containing an explosive designed to transmit the detonation or deflagration within a sequence of explosions.

Water-activated contrivance with dispersive, propelling or expelling charge.- These are articles whose functioning depends on the physico-chemical reaction of their contents with water.

Flexible detonating cord.- These are articles consisting of a core of detonating explosives enclosed in a spun fabric, with plastics or other coverings unless the spun fabric is sifted to make it dustproof.

**N.O.S.\*- Not otherwise specified.**

Detonating, metal-clad cord (fuse).- These are articles consisting of a core of detonating explosive clad by a soft-metal tube with or without protective cover. When the core contains a weapon [sic] of explosive in small quantities, the words "MILD EFFECT" must be added.

Igniter cord.- These are articles consisting of textile yarn, covered with black powder or another fast-burning pyrotechnic composition and with a flexible protective cover; or it can consist of a black powder core surrounded by a flexible woven fabric. This burns progressively and along its length with an external flame and is used to transmit the ignition from a device to a charge or primer.

Cable cutters with explosive charge.- These are articles consisting of a knife-edged device, which are driven by a small charge of deflagrating explosives within an anvil.

Non-electric detonators of assemblies for blasting.- These are non-electric detonators assembled and activated by means such as safety fuses, shock tubes, flash tubes or detonating cords. These detonators may be of instantaneous design or by incorporation of delaying elements. Detonating relays with detonating cords are included. Other detonating relays are included in "Non-electric detonators".

Detonators.- These are articles consisting of a small plastic or metal tube, containing explosives such as lead azide, penthrite or combinations of explosives. These are designed to start the detonation train. They must be constructed to detonate instantaneously, or could contain a delaying element. The term includes:

Detonators for ammunition and detonators for blasts, both electric and non-electric; These include detonating relays without flexible detonating cords.

Entire load and total contents.- The phrases "entire load" and "total contents" mean that [sic] the substantial proportion, which for the purpose of practical risk assessment, is equivalent to the simultaneous explosion of the total load of the contents of the explosive of the load or package.

Explode.- This is the verb used to indicate those explosive effects capable of endangering life and properties through the blast, heating or projection of missiles. This verb encompasses deflagration and detonation.

Explosion of the total contents.- The phrase "explosion of the total contents" is used in tests of a single article or package or a small stack of articles or packages.

Explosion [sic] for blasts.- These are detonating explosive substances used in the mining industry, constructions and other similar tasks. Blasting explosives are assigned to five classes. In addition to the ingredients listed, blasting explosives may also contain inert components such as diatomite [sic] and minor ingredients such as coloring agents and stabilizers.



Blasting explosives, type A.- These are substances consisting of liquid organic nitrates such as nitroglycerin or a mixture of such ingredients with one or more of the following components: nitrocellulose, ammonium nitrate, or combustible materials, such as wood-meal and aluminum powder. Such explosives must be in elastic, gelatinous or powdery form.

The term includes dynamite, explosive gelatine, and gelatine dynamite.

Blasting explosives, type B.- These are substances consisting of a mixture of ammonium nitrate and other inorganic nitrate with an explosive, such as trinitrotoluene, with or without other substance such as wood-meal and aluminum powder; or a mixture of ammonium nitrate or other inorganic nitrate with other combustible substances which are not explosive ingredients. Such explosives must not contain nitroglycerin, similar liquid organic nitrates, or chlorates.

Blasting explosives, type C.- These are substances containing a mixture of sodium or potassium chlorate or an ammonium, sodium or potassium perchlorate with organic nitro-derivatives or combustible materials such as wood-meal, aluminum powder or a hydrocarbon. Such explosives must not contain nitroglycerin or similar liquid organic nitrates.

Blasting explosives, type D.- These are substances containing a mixture of organic nitrated compounds and combustible materials such as hydrocarbons and aluminum powder. Such explosives must not contain nitroglycerin, similar liquid organic nitrates, chlorates, or aluminum [sic] nitrates. The term generally includes:

Plastic explosives.- These are substances containing water as essential ingredient and high proportions of ammonium nitrate or other oxidizers, with some or all of them in solution. Other constituents could include nitro-derivatives such as trinitrotoluene, hydrocarbons or aluminum powder.

The term includes explosives in emulsion, explosives in form of slur, and explosives in gel.

Deflagrating explosives.- These are substances, propellants which, when ignited or used in normal form, react by deflagration rather than by detonation.

Detonating explosives.- This is [sic] a substance which reacts by detonation rather than by deflagration when it is initiated and used in its normal form.

Extremely insensitive detonating explosive substances.- These are substances which, although they are capable of sustaining a detonation, have demonstrated through tests that they are very insensitive, so that there is very little probability of accidental activation.

Primary explosive.- These are explosive substances manufactured with a view to producing a practical effect by explosion, which substances are very sensitive to heat, impact or friction and which, even in very small quantities, detonate or burn very rapidly. It are [sic] capable of transmitting the detonation (in the case of initiating the explosion) or the deflagration of the secondary explosives close to them. The main primary explosive is mercury fulminate, lead azide, and lead styphnate.

Secondary explosive.- This is the substance that is relatively insensitive (when compared to primary explosives), which is usually initiated by primary explosives with or without the help of propellers [sic] or supplementary charges. Such explosives can react as deflagrating or detonating explosives.

Fireworks.- These are pyrotechnic articles designed for entertainment.

Flares.- These are articles containing pyrotechnic substances, designed for illuminating, identifying, signalling or warning. The term includes:

Aerial flares

Surface flares

Flash powder.- These are pyrotechnic substances which, when ignited, produce an intense light.

Explosive devices for fracturing, for oil wells, without detonator.- These are articles consisting of a charge of detonating explosives contained in a casing without means of initiation. They are used to fracture the rocks around a lathe or a perforation,[sic] to assist the flow of crude oil from the rocks.

Fuse/Fuze.- Although these two [English] words have a common origin (French *fusée, fusil*) and are sometimes considered to be different spellings, it is useful to make the distinction that the fuse refers to a cord as igniting device, while the fuze refers to a device used in ammunition which incorporate hydrostatic, chemical, electrical or mechanical components to initiate the train by deflagration or detonation.

Tubular igniter fuse, metal-clad.- This is the article consisting of a metal tube with a deflagrating explosive core.

Instantaneous, non-detonating fuse (rapid fuse).- These are articles consisting of a cotton yarn impregnated with fine black powder, which burns with an external flame and is used in ignition trains for fireworks, etc.

Safety fuse.- Articles consisting of a core of fine-grain black powder, surrounded by a flexible woven fabric with one or several protective outer coverings. When ignited, it burns at a predetermined rank [sic] without any external explosive effect.

Fuzes.- These are articles designed to cause a detonation or a deflagration of the ammunition. These contain chemical, electrical, hydrostatic or mechanical components, and general protective characteristic features.[sic] The term includes:

Detonating fuzes

Detonating fuzes with protective devices

Igniting fuzes

Hand or rifle grenades.- These are articles which are designed to be thrown by hand or projected with a rifle. The term includes:

Hand or rifle grenades, with an explosive charge

Hand or rifle practice grenades.- The term excludes smoke grenades, which are listed under the heading of Smoke ammunition.

Igniter devices.- These are articles containing one or more explosive substances used to start deflagration in a chain of explosives. These can be activated mechanically, electrically or

chemically. This term excludes the following articles, which are in a separate list: igniter cord, igniter fuse, instantaneous non-detonating fuse, igniting fuze, illuminating fuses, cap-type primer, and tubular primers.

Ignition (means of).- This is a term used in connection with the method employed for igniting a deflagrating train of explosives or pyrotechnic substances (for example: a primer for a propelling charge; an igniter device for rocket motors; an igniting fuze).

Initiation (means of).- This is a device intended to cause the detonation of an explosive (for example: a detonator, detonators for ammunition, detonating fuze).

The term "with its own means of initiation" means that the contrivance has its own [sic] initiating device assembled to it and this device is considered to represent an important 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, in such a manner that [sic] the device is packed to eliminate the risk of causing detonation of the contrivance in the event of accidental activation of the initiating device. The means of initiating can even be assembled to the contrivance, provided that there are protective devices so that [sic] the device is unlikely to cause detonation of the contrivance in conditions which are associated with transport.

For purposes of classification, any means of initiation without two effective protective devices must be regarded as falling under Compatibility Group B; the article with its own means of initiation, without two effective protective devices, under Compatibility Group F. On the other hand, a means of initiation which in itself possesses two effective protective devices falls under Compatibility Group D; an article with a means of initiation which possesses two effective protective devices falls under Compatibility Group D or E. A common and effective way of achieving the necessary degree of protection is to use means of initiation which incorporate two or more independent safety devices.

Jet perforating gun, charged, for oil wells, without detonator.- These are articles consisting of a metal tube or metallic strip, within which are inserted shaped charges connected by a detonating cord, without means of initiation.

Fuses for illuminating.- These are articles of various designs, which are activated by friction, percussion or electricity and are used to ignite the safety fuse.

Mass explosion.- This is the explosion which affects almost the entire load, instantaneously.

Mines.- These are articles consisting normally of metal receptacles or composite materials and an explosive charge. These articles are designed to be operated at the passage of ships, vehicles or personnel. The term includes "Bengalore torpedoes".

Powder cake (powder paste), wetted.- These are substances containing nitrocellulose impregnated with a maximum of 60% of nitroglycerin or other liquid organic nitrate or a mixture of these.

Smokeless powder.- These are substances based on nitrocellulose used as a propellant. The term includes propellants with a single base (only with nitrocellulose +NC), those with a double base (such as NC and nitroglycerin +NG) and those with a triple base (such as NC/NG/nitroguanidine). Cast, compressed or bagged charges of smokeless powder are listed under the heading of "propelling charges["] or "propelling charges for cannon".

Cap-type primer.- These are articles consisting of a plastic or metal capsule containing a small quantity of a primary explosive mixture which is readily ignited by impact. These primers serve as igniting elements in cartridges for small-caliber arms, and in the percussion primers for propelling charges.

Tubular primers.- These are articles consisting of a primer for ignition and an auxiliary charge of deflagrating explosives such as black powder used for igniting the propelling charges of the cartridges for cannon, etc.

Projectiles.- These are articles such as grenades [sic] or bullets which are projected from the cannons or other artillery, guns, rifles or other small arms. They may be inert, with or without tracer, or can contain a dispersive, expelling or explosive charge. The term includes:

Inert projectiles, with tracer;

Projectiles with dispersive or expelling charges, and

Projectiles with explosive charges.

Propellants.- Deflagrating explosives used for propulsion or for reducing the drag of the projectile.

Liquid propellants.- These are substances consisting of a deflagrating liquid explosive, used for propulsion.

Solid propellants.- These are substances consisting of a deflagrating solid explosive, used for propulsion.

Explosive release devices.- These are articles consisting of a small charge of explosives with means of initiation. They sever the various joints [sic] or rods to release equipment quickly.

Rocket motors.- These are articles consisting of a solid, liquid or hypergolic fuel contained in a cylinder fitted with one or more nozzles. These are designed to propel a rocket or a guided missile. The term includes:

Rocket motors;

Rocket motors, with hypergolic liquids with or without expelling charges; and

Rocket motors, with liquid fuel.

Rockets.- These are articles consisting of a rocket motor and a payload, which may be an explosive warhead or other device. The term includes guided missiles and:

Line-throwing rockets;

Rockets with liquid fuels with an explosive charge;

Rockets with an explosive charge;

Rockets with an expelling charge; and

Rockets with an inert head.

Signals.- These are articles containing pyrotechnic substances designed to produce sound, flame, smoke signals, or any combinations thereof. The term includes:

Hand signalling devices;

Ship distress signals;

Explosive signals for railroads; and

Smoke signals.

Explosive sonorous [sic] devices.- These are articles consisting of a charge of detonating explosives. They are hurled [sic] from ships and activated when they reach a predetermined depth or touch the sea-bed.

Explosive, very insensitive, substances (EVI Substances), N.O.S. - These are substances that present a mass explosion hazard, but are very insensitive so that there is very little probability of initiation or of a transition from burning or [sic] detonation (under normal conditions of transport), and which have passed the 5 series of test.[sic]

Torpedoes.- These are articles containing an explosive or non-explosive propulsion system and designed to be projected through water. They may contain a warhead or an inert head. The term includes:

Torpedoes, with liquid fuel with inert head;

Torpedoes, with liquid fuel with or without explosive charge, and

Torpedoes, with explosive charge.

Tracers for ammunition.- These are sealed articles containing pyrotechnic substances, designed to reveal the trajectory of a projectile.

Warheads.- These are articles which consist of detonating explosives. These are designed to be fitted to a rocket, guided missile or torpedo. They may contain a dispersive, expelling or explosive charge. The term includes:

Warheads, for rocket with a dispersive or expelling charge;

Warheads, for rocket, with an explosive charge, and

Warheads, for torpedoes, with an explosive charge.

Flash point.- Liquids which present a flash point (in a closed cup) of less than 23EC and an initial boiling point greater than 35 EC.

Flash point.- Liquids which present a flash point (in a closed cup) greater than or equal to 23EC, less than or equal to 60.5EC and an initial boiling point greater than 35EC.

Temperature during transport.- Units which transport in the liquid state and which present a temperature equal to or greater than 100 EC or a solid substance which is transported at a temperature equal to or greater than 240EC.

**Table III: INDICATION OF UNITED NATIONS NUMBERS  
FOR TERMS DESCRIBED IN PARAGRAPH 3.0**

Description of [sic] Term	UN Number
Ammunition, illuminating	0171, 0254, 0297
Ammunition, incendiary	0009, 0010, 0243, 0244, 0247, 0300
Ammunition, practice	0362, 0488
Ammunition, proof	0363
Ammunition, smoke	0015, 0016, 0245, 0246, 0303
Ammunition, tear-producing	0018, 0019, 0301
Ammunition, toxic	0020, 0021
Articles, EEI	0486
Articles, pyrophoric	0380
Articles, pyrotechnic, for technical purposes	0428, 0429, 0430, 0431, 0432
Black powder (gunpowder)	0027, 0028
Bombs	0033, 0034, 0035, 0037, 0038, 0039, 0291, 0299, 0399, 0400
Boosters	0042, 0225, 0268, 0283
Bursters	0049, 0050
Cartridges, flash	0049, 0050
Cartridges for weapons	0005, 0006, 0007, 0012, 0014, 0321, 0326, 0327, 0328, 0338, 0339, 0348, 0412, 0413, 0417
Cartridges for oil wells	0277, 0278
Cartridges, power device	0275, 0276, 0323
Cartridges, signal	0054, 0312, 0405
Cases for empty cartridges with primer	0055, 0379
Cases for empty cartridges without primer	0446, 0447
Charges, demolition	0048
Charges, depth	0056
Charges, explosive, for civilian uses without detonator	0442, 0443, 0444, 0445
Charges, propelling electric, for blasting	0242, 0271, 0272, 0360, 0361
Detonators	0029, 0030, 0073, 0255, 0267, 0364,



NOM-025-SCT2/1994

17/75

Explosives for blasting, Type A  
Explosives for blasting, Type B  
Explosives for blasting, Type C  
Explosives for blasting, Type D  
Explosives for blasting, Type E  
Explosives, deflagrating

Explosives, detonating

Explosives, primary

0365, 0036, 0455,  
0456  
0081  
0082, 0331  
0083  
0084  
0241, 0332  
0027, 0028, 0077,  
0132, 0158, 0160,  
0161, 0190, 0203,  
0234, 0235, 0236,  
0342, 0343, 0406,  
0407, 0448, 0495,  
0497, 0498, 0499.  
0004, 0072, 0074,  
0075, 0076, 0078,  
0079, 0081, 0082,  
0083, 0084, 0113,  
0114, 0118, 0129,  
0130, 0133, 0135,  
0143, 0144, 0146,  
0147, 0150, 0151,  
0153, 0154, 0155,  
0160, 0190, 0207,  
0208, 0209, 0213,  
0214, 0215, 0216,  
0217, 0218, 0219,  
0220, 0222, 0223,  
0224, 0226, 0241,  
0266, 0282, 0331,  
0332, 0340, 0431,  
0385, 0386, 0387,  
0388, 0389, 0390,  
0391, 0392, 0393,  
0394, 0401, 0402,  
0411, 0489, 0490.  
0074, 0113, 0114,  
0219,  
0130,  
0135,  
0224Ex  
plosiv  
es,  
second  
ary000  
4,  
0027,  
0028,  
0072,  
0075,  
0076,  
0077,  
0078,  
0079,  
0081,  
0082,  
0083,  
0084,  
0118,  
0132,  
0133,  
0143,

0144,  
 0146,  
 0147,  
 0150,  
 0151,  
 0153,  
 0154,  
 0155,  
 0158,  
 0160,  
 0161,  
 0190,  
 0203,  
 0207,  
 0208,  
 0209,  
 0213,  
 0214,  
 0215,  
 0216,  
 0217,  
 0218,  
 0219,  
 0220,  
 0222,  
 0223,  
 0226,  
 0234,  
 0235,  
 0236,  
 0241,  
 0266,  
 0282,  
 0331,  
 0332,  
 0340,  
 0341,  
 0342,  
 0343,  
 0385,  
 0386,  
 0387,  
 0388,  
 0289,  
 0390,  
 0391,  
 0392,  
 0393,  
 0394,  
 0401,  
 0402,  
 0406,  
 0407,  
 0411,  
 0489,  
 0490.

Fireworks	0333,	0334,	0335,
	0336,	0337	
Flares, aerial	0093,	0403,	0404,
	0420,	0421	
Flares, surface	0092,	0418,	0419
Flash powder	0094,	0305	
Explosive devices for the fracturing of oil wells without detonator	0099		
Fuse, igniter, tubular, metal clad	0103		

NOM-025-SCT2/1994  
19/75

Fuse, instantaneous, non-detonating	0101		
Fuse, safety	0105		
Fuzes	0106,	0107,	0257,
	0316,	0317,	0367,
	0368,	0408,	0409,
	0410		
Grenades, hand or rifle	0110,	0284,	0285,
	0292,	0293,	0318,
	0372,	0452	
Igniters	0121,	0314,	0315,
	0325,	0454	
Jet perforating gun, for oil wells, without detonator	0124,	0494	
Lighting fuses	0131		
Mines	0136,	0137,	0138,
	0294		
Powder cake (powder paste)	0159,	0433	
Powder, smokeless	0160,	0161	
Primer, capsule type	0044,	0377,	0378
Primers, tubular	0319,	0320,	0376
Projectiles	0167,	0168,	0169,
	0324,	0344,	0345,
	0346,	0347,	0424,
	0425,	0426,	0427,
	0434,	0435	
Propellants, liquid	0495,	0497	
Propellants, solid	0498,	0499	
Release devices, explosive	0173		
Rocket motors	0186,	0250,	0280,
	0281,	0322,	0395,
	0396		
Rockets	0180,	0181,	0182,
	0183,	0283,	0240,
	0295,	0397,	0398,
	0436,	0437,	0438,
	0453		
Signals	0191,	0192,	0193,
	0194,	0195,	0196,
	0197,	0313,	0373,
	0487,	0492,	0493
Substances EVI, N.O.S.	0482		
Sounding devices, explosive	0204,	0296,	0374,
	0375		
Torpedoes	0329,	0330,	0449,
	0450,	0451	
Tracers for ammunition	0212,	0306	
Warheads	0021,	0286,	0287,
	0369,	0370,	

5. GENERAL PROVISIONS.

- 5.1 Class 1 is a restricted class, that is to say, only those explosive substances and materials that are listed in Standard NOM-002-SCT2/1994 must be accepted for transport.
- 5.2 Although Class 1 is restricted, the competent authorities shall retain the right by mutual agreement to approve the transport of explosive substances and articles for specific purposes under special conditions. Therefore, entries have been included for "Explosive Substances and Materials, not otherwise specified" and "Materials, explosives, not otherwise specified". It is the intention that these entries should be used solely when no other method of operation is possible (see Table 4, NOM-002-SCT2/1994).
- 5.3 Some general entries such as "Blasting explosives, Type A" are used to allow for the inclusion of new substances in these entries.
- 5.4 Explosives and ammunition for military use cannot be transported by private carriers.
- 5.5 Some substances and materials in Class 1 are defined in Section 3 of this Standard, "Definitions". These definitions are given for the purpose because a term may not be well-known, or may be at variance with its usage for purposes of this Standard.
- 5.6 Any substance or material having or suspected of having explosive characteristics must first be considered *[missing word]* its inclusion in Class 1.
- 5.7 The transport of explosive materials and substances that are extremely sensitive must be prohibited except when it is authorized, in special form, by the Secretariat *[of Transportation]*.
- 5.8 Except for substances which are listed by their shipping name in list NOM-002-SCT2-1994, other hazardous materials or substances (including generic ones) must not be presented for transport as Class 1 until they have been subjected to the classification procedure indicated in this Standard.

- 5.9 Materials of Class 1 are assigned to one of the six divisions, depending on the type of hazard they present and to one of the thirteen compatibility groups which are identified by the classes of explosive substances and materials that are believed to be compatible.
- 5.10 Package or Packaging Group II is generally specified for Class 1 materials. The type of package or packaging frequently has a decisive effect on the hazard and therefore on the assignment of a particular division in this class. Consequently, a particular explosive material or substance may appear in various places in the listing of Standard NOM-002-SCT2-1994. For this reason, it is important that said explosive be located in Table IV of this Standard for its correct definition.
- 5.11 Figure 1 and Tables I, II show a scheme of classification within the compatibility groups, the divisions for the possible risks associated with each group, and the consequential classification codes. It should be considered that the classification code is indicated in the shipping papers.

**6.- CLASSIFICATION.**

- 6.1 Figures 1, 2 and 3 indicate the general scheme for classifying an explosive substance, material or article which is considered for inclusion in Class 1. The classification is made in accordance with the potential for explosion of a substance, which must be verified [missing phrase] and its sensibility [sic] and sensitivity in both chemical and physical forms must be documented in order for the explosive to be accepted.
- 6.2 The classification scheme is solely designed for the classification of the package or packaging of the substances and materials and for individual materials without a package. Transport in freight containers, motor vehicles, and boxcars may require special tests which must take into account the quantity and class of substance and the freight container for the substance.
- 6.3 The classification procedure must be carried out before a new product is offered for transport, and must involve the following:

- 6.3.1 A new explosive substance or a combination or a mixture of explosive substances which are considered to be significantly different from other combinations or mixtures already classified;
- 6.3.2 The design of a new material, or a material containing a new explosive substance, or a new combination or mixture of explosive substances;
- 6.3.3 The design of a new package and packaging for a substance, explosive, including a new type of inner package and packaging. The importance of this may be considered as not important [sic] notwithstanding which these are effected as relatively minor changes in the inner and outer package and packaging, for which reason these changes can be critical and convert a much smaller risk into an explosion risk.
- 6.3.4 A load unit, unless all the packages and packagings have the same hazard classification code. The resulting classification code shall be applied to the load unit as a whole, treating it as if it were a sole package or packaging, for the purposes of its marking and labelling in accordance with Standard NOM-003-SCT2-1994.
- 6.4 The producer or other applicant for the risk classification of a product must provide adequate information concerning the names and characteristics of all explosive substances in the product, and must furnish the results of all relevant tests which have been done. It is considered that all the explosive substances in a new material have been adequately tested and approved.
- 6.5 When there are at the border [sic] boxes without any scheme of testing, the Secretariat [of Transportation] will authorize, through a Certified Laboratory, the final decision-making for their transport. Such a decision may not be accepted internationally, and may only be used in Mexico. When international recognition is required for a classification, the producer shall submit to the competent authority all tests made in a Laboratory authorized by this country's authorities.
- 7. ACCEPTANCE PROCEDURE.**
- 7.1 The results from the preliminary tests and those from Test Series 1 through 4 are used to determine when [sic] the

product is acceptable for Class 1. If the substance is manufactured for the purpose of producing an explosive or pyrotechnic effect, it is necessary to conduct Test Series 1 and 2. If a material, or a contained and packed material, or a substance or material is rejected by Test Series 4, it must be practically redesigned [sic] to make it acceptable again.[sic]

- 7.2 Some attachments may function adequately [sic] during transport[;] a theoretical analysis, test data or other evidence of safety must be provided to establish that such an event is unlikely or that the consequences are insignificant. The assessment must consider vibration related to the various [sic] forms of transport, static electricity, electromagnetic radiation at all relevant frequencies (maximum intensity 100 W/m<sup>2</sup>), adverse climatic conditions and compatibility of explosive substances with glues, paints and packaging materials with which it may come in contact. All articles containing initiatory explosive substances must be assessed to evaluate the risk and consequences of accidental functioning during transport. The reliability of fuses [sic] must be assessed to ascertain that they have been designed in a conscientious manner.

**8. PROCEDURES FOR ASSIGNMENT OF THE HAZARD DIVISION AND COMPATIBILITY GROUP.**

8.1 General Provisions.

- 8.1.1 A substance, or material or article which is accepted into Class 1, must be assigned to a hazard division and a compatibility group. Assessment of the hazard division is usually made based on test results[;] assessment of the compatibility group is usually made without test data, except for the Compatibility Groups N and S for which testing is necessary. In the case of Compatibility Group [missing letter], the tests must be made by a Laboratory authorized by the Secretariat [of Transportation], or if classification by analogy is possible using test results for a similar material (See Figure 3).

- 8.1.2 The classification assessment must be verified if the substance, material, or its package or packaging has been degraded and the degradation can affect the behavior of the material in the tests.

- 8.2 Assignment of hazard divisions.
- 8.2.1 A substance or material must be assigned to the hazard division to which it corresponds according to test results. Other test results of tests and data values for accidents which have occurred, may also be taken into account.
- 8.2.2 When a substance or material is not [sic] provisionally accepted into Class 1, it is exempted from Class 1 upon performing Test Series 6 on a specific type and size of package [;] when this substance meets the classification or definition criteria for another class or division, it must be placed in Table 2 of Standard NOM-002-SCT2-1994, with the special conditions restrictive to the type and size of the tests of the package.
- 8.2.3 When a substance or material is assigned to Class 1 by the 6 tests,[sic] this diluted substance may meet the classification or definition criteria of another substance or material found in the Table in Standard NOM-002-SCT2-1994, at the highest concentration which exempts it from Class 1. When it is sufficiently diluted, this substance or material cannot be classified as hazardous.
- 8.3 Determination of compatibility group.
- 8.3.1 The compatibility group of the substance or material or article must be determined based on the description of compatibility groups given in Table I. Compatibility Groups N and S must be used if justified by the results of the tests.

**9. TESTS FOR ASSIGNMENT OF THE HAZARD DIVISIONS.**

- 9.1 Test Series 5, 6 and 7 are used for the determination of the hazard divisions. Test Series 5 is used to determine when [sic] a substance can be assigned to Division 1.5. Test Series 6 is used for the assignment of substances or materials [missing word] Divisions 1.1, 1.2, 1.3 and 1.4. Test Series 7 is used for the assignment of articles to Division 1.6.
- 9.2 If explosive articles are transported without being placed in a package, Test Type 6 may be deferred.[sic]
- 9.3 A report on the series of tests must be drafted in accordance with the requirements of the competent authority. This report must include the following information:
- a) The composition of the substance or material;
  - b) The quantity of substance or material;
  - c) The type and construction of the package;
  - d) The test assembly, including in particular its nature, quantity and arrangement of the means used for initiation or ignition;
  - e) The course of the test, including in particular the lapse of time until the occurrence of the first noteworthy reaction of the substance or material, the duration and characteristics of the reaction, and an estimate of its final state;[sic]



- f) The effect of the reaction on the immediate surrounding area (up to 25 m from the site of the test);
- g) The effect of the reaction on the most remote surrounding area (more than 25 m from the site of the test), and
- h) The atmospheric conditions during the test.

**Table I**

This Table shows the general scheme of classification of hazardous materials, in accordance with their compatibility group and classification code, based on which the provisions for their joint transport were determined. The first column describes the explosive material concerned; the second column, the compatibility group to which it belongs; the third column, its classification code, formed by the hazard division number and a letter indicating its compatibility group.

TABLE II  
CLASSIFICATION SCHEME FOR EXPLOSIVES,  
COMBINING RISK AND COMPATIBILITY GROUP.

RISK	COMPATIBILITY GROUP														
	A	B	C	D	E	F	G	H	J	K	L	N	S	A-S S	
1.1	1.1A	1.1B	1.1C	1.1D	1.1E	1.1F	1.1G		1.1J		1.1L				9
1.2		1.2B	1.2C	1.2D	1.2E	1.2F	1.2G	1.2H	1.2J	1.2K	1.2L				10
1.3			1.3C	1.3D		1.3F	1.3G	1.3H	1.3J	1.3K	1.3L				7
1.4		1.4B	1.4C	1.4D	1.4E	1.4F	1.4G						1.4S		7
1.5				1.5D											1
1.6												1.6N			1
1.1-1.6 S	1	3	4	4	3	4	4	2	3	2	3	1	1		35

**TABLE I**  
**COMPATIBILITY GROUPS AND CLASSIFICATION CODES FOR**  
**MATERIALS IN CLASS I (EXPLOSIVES).**

Description of material	Group	Compatibility Code	Classification
Primary explosive substance.	A		1.1A
Object containing a primary explosive substance and having less than two effective protective devices.	B		1.1B 1.2B 1.4B
Propellant explosive substance or other deflagrating explosive substance or object containing such explosive substance.	C		1.1C 1.2C 1.3C 1.4C
Secondary detonating explosive substance or black powder or any object containing a secondary detonating explosive substance, in each case without its own means of initiation and without a propelling charge or object containing a primary explosive substance and having two or more effective protective devices.	D		1.1D 1.2D 1.4D 1.5D
Object containing a secondary detonating explosive substance, without its own means of initiation, with a propelling charge (except charges containing a flammable liquid or gel or hypergolic liquids).	E		1.1E 1.2E 1.4E
Objects containing a secondary detonating explosive substance, with its own means of initiation. With a propelling charge (except charges containing a flammable liquid or gel or hypergolic liquids) or without said propelling charge.	F		1.1F 1.2F 1.3F

COMPATIBILITY GROUPS AND CLASSIFICATION CODES FOR  
MATERIALS IN CLASS I (EXPLOSIVES).

Description of material	Group	Compatibility Code	Classification
Pyrotechnic substance, or object containing a pyrotechnic substance, or object containing an explosive substance and in addition an illuminating, incendiary, tear- or smoke-producing substance (except objects activated by water or objects containing white phosphorus, phosphorus,[sic] a pyrophoric substance, a flammable liquid or gel, or hypergolic liquids).	G		1.1G 1.2G 1.3G 1.4G
Objects containing an explosive substance and in addition white phosphorus.	H		1.2H 1.3H
Objects containing an explosive substance and in addition a flammable liquid or gel.	J		1.1J 1.2J 1.3J
Explosive substance, or objects containing an explosive substance and presenting a special risk (for example, due to being water-activated, or to the presence of hypergolic liquids, phosphides, or a pyrophoric substance) and requiring separation of each type, see Standard NOM-009-SCT2-1994.	K		1.2K 1.3K
Objects containing only extremely insensitive detonating substances.	L		1.1L 1.2L 1.3L
	N		1.6N

COMPATIBILITY GROUPS AND CLASSIFICATION CODES FOR  
MATERIALS IN CLASS I (EXPLOSIVES).

Description of material	Group	Compatibility Code	Classification
Substance or object designed or contained or packaged so that any hazardous effect arising from accidental functioning remains confined within [said package,] unless it has been degraded by fire, in which case all expansive-wave [sic] or projection effects must be sufficiently limited that they do not hinder fire fighting, or the adoption of other emergency steps in the immediate vicinity of the package.	S		1.4S

10. GENERAL AND SPECIAL PROVISIONS FOR PACKAGE AND PACKAGING.

10.1 For the package and packaging of hazardous materials in Class 1 Explosives, the following provisions must be observed:

10.2 General provisions.

- 10.2.1 The nails, staples and other metal closure devices having no protective covering must not penetrate inside the outer package or packaging, unless the inner package or packaging adequately protects the explosives against contact with the metal.
- 10.2.2 The closure device of receptacles containing liquid explosives must afford a double protection against leaks.
- 10.2.3 Inner packages or packagings, fastening devices and cushioning materials, as well as the placing of explosive materials in the packages or packagings, must be such that no dangerous movement may occur within the packages or packaging during transport.

- 10.2.4 In principle, some explosives must not be contained or packed together with other explosives of a different nature. Nevertheless, when such mixed package or packaging is permitted, it must be such that an accidental explosion of part of the contents of the package or packaging cannot be communicated to the rest of the contents.
- 10.2.5 Each package or packaging must be marked on the outside with the name of its contents and the United Nations number, in accordance with the provisions in the Official Mexican Standard NOM-002-SCT2/1994.
- 10.2.6 When the package or packaging includes a double envelope filled with water which may freeze during transport, the necessary amount of anti-freeze shall be added to the water to avoid this risk.
- 10.2.7 Where there is a risk of significant internal pressure developing in receptacles, said receptacles shall be so constructed that such an increase in internal pressure due to internal or external causes cannot cause an explosion.
- 10.2.8 Package or Packaging Method E 103 shall be adopted for any explosive. Provided that the package or packaging has been subjected to the tests and demonstrates that it does not present a major risk.

### 10.3 Special provisions.

The special provisions to be observed for the package or packaging of Class 1 Explosives are described below.

- 10.3.1 If the body of steel drums has a double seam, the necessary steps shall be taken to prevent the ingress of explosive materials in the seams.
- 10.3.2 The closure device of aluminum or steel drums must be leakproof; if the closure device includes a screw-thread, it must be seen to it that the ingress of explosive material into said screw-thread is impossible.
- 10.3.3 If metal-lined boxes are used for the package and packaging of explosive materials, said boxes shall be made in such a way that the explosive materials transported cannot get between the metal liner and the walls or bottom of the box.

- 10.3.4 Hoops of wooden barrels intended for the [t]ransport of [e]xplosive [s]ubstances and [m]aterials may not be of any material other than hardwood.
- 10.3.5 Large-size explosive substances and materials transported without package may be fixed to frameworks [sic] or contained in crates.
- 10.3.6 Methods of packing or packaging of hazardous materials in Class 1 Explosives.

The transport of this type of substances and materials must be as indicated in Table IV, which contains the code of the method of packing or packaging in question (1st column); the type of inner package or packaging required (2nd column); the type of outer package or packaging required (3rd column); and the special package or packaging requirements and exceptions that must be observed (4th column)[,] in accordance with the provisions contained in Table V of this Standard.

**Table IV**  
**METHOD OF PACKING OR PACKAGING FOR EXPLOSIVES.**

Method	Type of inner packing/ packaging	Type of outer package/ packaging	Special packing packagi ng require ments or excep- tions */
(1)	(2)	(3)	(4)
E 1 a)	Not necessary	Bags - paper, multiwall, water resistant (5M2) - textile, dust-proof (5L2) - textile, water resistant (5L3) - woven plastic (5H2 and 5H3) - plastic film (5H4).	
b)	Bags - kraft paper - plastic Sheets - plastic	Barrels: - wooden, removable head (2C2) Boxes - natural wood, ordinary (4C1) - plywood (4D) - reconstituted wood (4F) Drums - steel, removable head (1A2)	

Method	Type of inner package/ packaging	Type of outer package/ packaging	Special packing / packaging requirements or exceptions */ _/
(1)	(2)	(3)	(4)
E 2	Receptacles - metal - paper - plastic Sheets - plastic Bags - paper, multiwall, water resistant, woven plastics.	Barrels: - wooden, removable head (2C2) Boxes - fiberboard (4G) - natural wood, ordinary (4C1) - plywood (4D) - reconstituted wood (4F) Drums - fiberboard (1G) - steel, removable head In addition, for No. 0219 (trinitroresorcinol), plastic drums, removable head (1H2).	1 for all entries, 2 for Nos. 0004, 0076, 0077, 0078, 0132, 0154, 0216, 0219, 0234, 0235, 0236, 0386, 0394.
E 3	Bags - plastic - rubber - textile - textile, rubberized <u>Intermediate:</u> Bag - plastic - <b>rubber</b> - <b>textile</b> - <b>textile, rubberized</b> <b>Receptacles</b> - <b>plastic</b> <b>Barrels</b> - <b>wooden</b>	Barrels: - wooden, removable head (2C2) Drums - plastic, removable head (1H2) - steel, removable head (1A2)	3, 4
E 4 a)	Receptacles - fiberboard - metal - paper - plastic - textile, rubberized.	Barrels: - wood, removable head (2C2) Boxes - fiberboard (4G) - natural wood, sift-proof walls (4C2). - plywood (4D) - reconstituted wood (4F) - natural wood, ordinary (4C1) - steel (4A)	



Method	Type of inner package/ packaging	Type of outer package/ packaging	Special packing packagi ng require ments or excep- tions */
(1)	(2)	(3)	(4)
b)	Not necessary	Drums - aluminum, removable head (1B2) - fiberboard (1G) - steel, removable head (1A2), dust-proof.	
E 5	Bags - plastic Sheets - kraft paper, <i>/incomprehen- sible word/</i> - paper, waxed	Boxes - fiberboard (4G0) - natural wood, dust-proof walls. - plywood (4D) - reconstituted wood (4F)	
E 6 a)  i)	<u>Wetted substances</u>  Bags - plastic - textile, rubberized	Barrels: - wooden, removable head (2C2)  Boxes - fiberboard (4G) - natural wood, ordinary (4C1) - plywood (4D) - reconstituted wood (4F)  Drums - steel, removable head (1A2) - fiberboard (1G)	
ii)	Bags - rubber - textile - textile, rubberized  <u>Intermediate:</u> Bags - plastic - rubber - textile, rubberized	Barrels: - wooden, removable head (2C2)  Drums - steel, removable head (1A2) - fiberboard (1G).	
b)	<u>Desensitized substances</u>  Same standards as for wetted substances, except that any type of fiberboard box may be used as an inner package or packaging and any type of textile bag may be used as		

	intermediate package or packaging.	
--	------------------------------------	--

Method	Type of inner package/ packaging	Type of outer package/ packaging	Special packing / packaging requirements or exceptions */
(1)	(2)	(3)	(4)
E 8	Receptacles - waterproof material Sheets - waterproof.	Barrels: - wood, removable head (2C2) Boxes - fiberboard (4G) - natural wood, ordinary (4C1) - plywood (4D) - reconstituted wood (4F) - steel (4A) - aluminum (4B) - rigid plastic (4H2) - steel, removable head (1A2) - aluminum, removable head (1B2) Drums - fiberboard (1G)	
E 9	Bags - oil-resistant Sheets - plastic Cans - metal.	Bags - paper, multiwall, water-resistant (5M2) - textile, dust-proof (5L2) - textile, water-resistant (5L3) - woven plastic (5H1, 5H2 or 5H3). - plastic film (5H4) (If bags 5H2, 5H3 or 5H4 are used, no inner package/packagings necessary.) Boxes - fiberboard (4G) - natural wood, ordinary (4C1) - plywood (4D) - reconstituted wood (4F) Drums - fiberboard (1G) - steel, removable head (1A2).	

Method	Type of inner packing/ packaging	Type of outer packing/ packaging	Special packing / packaging requirements or exceptions */ _/
(1)	(2)	(3)	(4)
E 10	Bags - paper, waxed - plastic - textile, rubberized Sheets - paper, waxed - plastic - textile, rubberized.	Barrels: - wooden, removable head (2C2) Boxes - natural wood, ordinary (4C1) - plywood (4D) - reconstituted wood (4F)	
E 11	Bags - paper, waxed - plastic - textile - textile, rubberized Sheets - paper, waxed - plastic - textile - textile, rubberized.	Barrels: - wooden, removable head (2C2) Boxes - fiberboard (4G) - natural wood, ordinary (4C1) - plywood (4D) - reconstituted wood (4F) Drums: - fiberboard (1G)	
E 12	Bags - oil-resistant Sheets - plastic	Bags - paper, multiwall, water-resistant (5M2) - woven plastic (5H1, 5H2 or 5H3) - plastic film (5H4) - textile, dust-proof (5L2) - textile, water-resistant (5L3) (If bags 5H2 or 5H3 are used, no inner package and packaging is necessary.) Boxes - fiberboard (4G) - natural wood, ordinary (4C1) - plywood (4D) - reconstituted wood (4F) - steel (4A)	

Method	Type of inner package/ packaging	Type of outer package/ packaging	Special packing / packaging requirements or exceptions */ _/
(1)	(2)	(3)	(4)
	Drums - fiberboard (1G) - steel, removable head (1A2) - aluminum, removable head (1B2)	- aluminum (4B) - rigid plastic (4H2)	
E 13 a)	<u>Wetted substances</u> Bags - plastic - paper, multiwall, water-resistant. - woven plastic Sheets - plastic	Barrels: - wooden, removable head (2C2) Boxes - fiberboard (4G) - natural wood, ordinary (4C1) - plywood (4D) - reconstituted wood (4F) Drums: - fiberboard (1G)	
b)	<u>Dry substances</u> Bags - paper - paper, multiwall, water-resistant. - woven plastic - plastic Boxes - fiberboard Sheets - plastic.	Barrels: - wooden, removable head (2C2) Boxes - fiberboard (4G) - natural wood, ordinary (4C1) - plywood (4D) - reconstituted wood (4F) Drums: - fiberboard (1G)	
E 14	Bags - rubber - textile - textile, rubberized	Barrels: - wooden, removable head (2C2) Drums - steel, removable head (1A2)	

Method	Type of inner package/ packaging	Type of outer package/ packaging	Special packing /
--------	-------------------------------------	-------------------------------------	----------------------

	packaging	packaging	packaging requirements or exceptions */
(1)	(2)	(3)	(4)
	Intermediate: Bags - rubber - textile, rubberized.		
E 15 a)  b)	Not necessary  Bags - paper, waterproof - plastic - textile, rubberized Sheets - plastic - textile, rubberized.	Drums - aluminum, removable head (1B2) - steel, removable head (1A2) Barrels, wooden - removable head (2C2) Boxes - fiberboard (4G) - natural wood, ordinary (4C1) - plywood (4F) Drums - fiberboard (1G)	
E 17	Cans - metal Receptacles - glass - plastic	Boxes - natural wood, ordinary (4C1) - plywood (4D) - reconstituted wood (4F)	47
E 18	Bags - paper - plastic Sheets - plastic	Barrels: - wooden, removable head (2C2) Boxes - fiberboard (4G) - natural wood, ordinary (4C1) - plywood (4D) - reconstituted wood (4F) Drums - fiberboard (1G) - plywood (1D) - steel, removable head (1A2)	

Method	Type of inner package/ packaging	Type of outer package/ packaging	Special packing / packaging requirements or exceptions */ _/
(1)	(2)	(3)	(4)
E 19 a)	Not necessary	Drums - aluminum, removable head (1B2) - steel, removable head (1A2) - plastic, removable head (1H2)	7
b)	Bags - plastic Sheets - plastic	Barrels: - wooden, removable head (2C2) Boxes - natural wood, ordinary (4C1) - plywood (4D) - reconstituted wood (4F) Drums - fiberboard (1G)	
E 20	Receptacles - fiberboard - metal - plastic - wooden	Boxes - fiberboard (4G) - natural wood, ordinary (4C1) - plywood (4D) - reconstituted wood (4F) - solid plastic (4H2) - steel (4A) - aluminum (4B) Drums - fiberboard (1G)	55
E 21	Boxes - fiberboard Cans - metal Receptacles - paper, waterproof - plastic (which does not accumulate static electricity in contact with content).	Boxes - natural wood, dust-proof. - plywood (4D) - reconstituted wood (4F)	2

Method	Type of inner package/ packaging	Type of outer package/ packaging	Special packing / packaging requirements or exceptions */ _/
(1)	(2)	(3)	(4)
<p>E 22</p> <p>a)</p> <p>b)</p> <p>c)</p>	<p>Bags</p> <ul style="list-style-type: none"> <li>- paper, kraft</li> <li>- plastic</li> <li>- textile</li> <li>- textile, rubberized</li> </ul> <p>Receptacles</p> <ul style="list-style-type: none"> <li>- fiberboard</li> <li>- metal</li> <li>- plastic</li> </ul> <p>Not necessary</p>	<p>Barrels:</p> <ul style="list-style-type: none"> <li>- wooden, removable head (2C2)</li> </ul> <p>Boxes</p> <ul style="list-style-type: none"> <li>- fiberboard (4G)</li> <li>- natural wood, ordinary (4C1)</li> <li>- natural wood, dust-proof walls.</li> <li>- plywood (4D)</li> <li>- reconstituted wood (4F)</li> </ul> <p>Drums</p> <ul style="list-style-type: none"> <li>- plywood (1D)</li> <li>- fiberboard (1G)</li> </ul> <p>Boxes</p> <ul style="list-style-type: none"> <li>- fiberboard (4G)</li> <li>- natural wood, ordinary (4C1)</li> <li>- natural wood, dust-proof walls.</li> <li>- plywood (4D)</li> <li>- reconstituted wood (4F)</li> </ul> <p>Drums</p> <ul style="list-style-type: none"> <li>- steel, removable head (1A2)</li> <li>- fiberboard (1G)</li> <li>- plywood (1D)</li> </ul> <p>Jerricans</p> <ul style="list-style-type: none"> <li>- steel, non-removable head (3A1)</li> <li>- steel, removable head (3A2)</li> </ul>	<p>11 for No. 0411</p> <p>10</p> <p>8, 9, 10</p>
<p>E 24</p> <p>a)</p> <p>b)</p>	<p>Bags</p> <ul style="list-style-type: none"> <li>- rubber</li> <li>- textile, rubberized</li> <li>- plastic</li> </ul> <p>Bags</p> <ul style="list-style-type: none"> <li>- rubber</li> <li>- textile, rubberized</li> <li>- plastic</li> </ul> <p><u>Intermediate:</u> Bags</p> <ul style="list-style-type: none"> <li>- rubber</li> <li>- textile, rubberized</li> </ul>	<p>Boxes</p> <ul style="list-style-type: none"> <li>- fiberboard (4G)</li> </ul> <p>Drums</p> <ul style="list-style-type: none"> <li>- steel, removable head (1A2)</li> </ul>	<p>2</p>



	- plastic		
--	-----------	--	--

Method	Type of inner package/ packaging	Type of outer package/ packaging	Special packing / packaging requirements or exceptions */ _/
(1)	(2)	(3)	(4)
E 25	Bags - plastic	Drums - fiberboard (1G) - steel, removable head (1A2)	
E 26	Receptacles - metal - paper - plastic Sheets - plastic Bags - plastic - paper - paper, multiwall, water-resistant	Barrels: - wooden, removable head (2C2) Boxes - fiberboard (4G) - natural wood, ordinary (4C1) - plywood (4D) - reconstituted wood (4F) Drums - fiberboard (1G) Bags - dust-proof (5H2)	53
E 102	As per the specifications of the competent authorities	Boxes - natural wood, ordinary (4C1) - plywood (4D) - expanded plastic (4H1) - reconstituted wood (4F) - steel (4A1) - solid plastic (4H2) - aluminum (4B) - fiberboard (1G) Drums - steel, removable head (1A2) - fiberboard (1G) - aluminum, removable head (1B2)	13, 48, 52
E 103 As per the specifications of the competent authorities. The shipping document must indicate the State to which said authorities belong, using to this effect the distinguishing sign for motor vehicles in international traffic, preceded by the following formula: "Package/package approved by the competent authorities of..."			
Method	Type of inner package/ packaging	Type of outer package/ packaging	Special packing / packaging

			requirements or exceptions */ _
(1)	(2)	(3)	(4)
E 104	Receptacles - fiberboard - paper - plastic - metal	Boxes - fiberboard (4G) - natural wood, ordinary (4C1) - plywood (4D) - reconstituted wood (4F) - steel (4A) - aluminum (4B) - reconstituted wood (4F) - steel, with inner liner or coating (4A2).	54
E 105	Receptacles - fiberboard - metal - plastic.  <u>Intermediate:</u> Boxes - fiberboard - wooden	Boxes - fiberboard (4G) - natural wood, ordinary (4C1) - plywood (4D) - reconstituted wood (4F) - steel (4A) - aluminum (4B)	21, 22, 24,
E 105 A	Bags - paper - plastic Boxes - fiberboard Receptacles - fiberboard	Boxes - fiberboard (4G) - natural wood, ordinary (4C1) - plywood (4D) - reconstituted wood (4F) - steel (4A) - aluminum (4B)	
E 106	Not necessary	Boxes - natural wood, ordinary (4C1) - plywood (4D) - reconstituted wood (4F) - steel - rigid plastic (4H2) - aluminum (4B) Drums - steel, removable head (1A2).	49 except for Nos. 0434 and 0435

Method	Type of inner package/ packaging	Type of outer package/ packaging	Special packing / packagi ng require ments or excep- tions */ _/
(1)	(2)	(3)	(4)
E 107 a)	Finished multiplier boosters (multiplier cartridges), consisting in closed metal, plastic or fiberboard receptacles which contain a detonating explosive, or consisting in a detonating explosive bonded to a plastic explosive:  Not necessary	Boxes - fiberboard (4G) - natural wood, ordinary (4C1) - plywood (4D) - reconstituted wood (4F) - steel (4A) - aluminum (4B)	
b)	Multiplier boosters (multiplier cartridges) cast or pressed in tubes or capsules without end closures.  Receptacles - fiberboard - metal - plastic Sheets - plastic - paper	Boxes - fiberboard (4G) - natural wood, ordinary (4C1) - plywood (4D) - reconstituted wood (4F) - steel (4A) - aluminum (4B)	
E 108	Dividing partitions - in outer package/ packaging Receptacles - metal - plastic - wooden	Boxes - natural wood, ordinary (4C1) - plywood (4D) - reconstituted wood (4D) - steel (4A) - aluminum (4B)	
E 109	Receptacles - metal - plastic - wooden - fiberboard - paper	Boxes - natural wood, ordinary (4C1) - plywood (4D) - reconstituted wood (4F) - steel (4A) - aluminum (4B)	28

Method	Type of inner package/ packaging	Type of outer package/ packaging	Special packing / packagi
--------	-------------------------------------	-------------------------------------	---------------------------------

			ng requirements or exceptions */
(1)	(2)	(3)	(4)
E 112	Not necessary	Boxes - fiberboard (4G) - natural wood, ordinary (4C1) - plywood (4D) - reconstituted wood (4F) - steel (4A1) - rigid plastic (4H2) - aluminum (4B) Drums - steel, removable head (1A2)	
E 113	Receptacles - fiberboard - plastic - wooden - metal	Boxes - fiberboard (4G) - natural wood, ordinary (4C1) - plywood (4D) - reconstituted wood (4F) - natural wood, with dust-proof walls (4C2) - steel (4A)	
E 114	Receptacles - fiberboard - plastic - wooden - metal	Boxes - fiberboard (4G) - natural wood, ordinary (4C1) - plywood (4D) - reconstituted wood (4F) - natural wood, dust-proof walls (4C2) - steel (4A) - aluminum (4B) Drums - steel, removable head (1A2)	
E 115	Receptacles - fiberboard - metal - paper, kraft (for cartridges of 1.4G and 1.4S) - plastic - wooden	Boxes - fiberboard (4G) - natural wood, ordinary (4C1) - plywood (4D) - reconstituted wood (4F) - expanded plastic (4H1) - plastic, rigid (4H2) - steel (4A) - aluminum (4B)	

Method	Type of inner package/ package/ packaging	Type of outer package/ package/ packaging	Special package packagi ng require ments or excep- tions */
(1)	(2)	(3)	(4)
E 116	Bags (for small cartridges) - plastic - textile Boxes - fiberboard - plastic - wooden with Dividing partitions in the outer package/ packaging	Boxes - fiberboard (4G) - natural wood, ordinary (4C1) - plywood (4D) - reconstituted wood (4F) - steel (4A) - aluminum (4B)	
E 117	Not necessary	Box - natural wood, ordinary (4C1) - plywood (4D) - reconstituted wood (4F) - steel (4A) - fiberboard (4G) - aluminum (4B) Drums - steel, removable plate (1A2)	
E 119	Not necessary	Boxes - fiberboard (4G) - natural wood, ordinary (4C1) (for cased charges only) - natural wood, dust-proof walls. - plywood (4F) - steel (4A) - rigid plastic (4H2) - aluminum (4B) Drums - steel, removable head (1A2) - aluminum, removable head (1B2)	
E 120	With dividing partitions in the outer package/ packaging  Tubes - fiberboard or equivalent	Boxes - fiberboard (4G) - natural wood, ordinary (4C1) - plywood (4D) - reconstituted wood (4F)	30, 31

	material.		
--	-----------	--	--

Method	Type of inner package/ packaging	Type of outer package/ packaging	Special package / packaging requirements or exceptions */ _/
(1)	(2)	(3)	(4)
E 121	Not necessary	Boxes - fiberboard (4G) - natural wood, ordinary (4C1) - plywood (4D) - reconstituted wood (4F) - steel (4A) - aluminum (4B) Drums - steel, removable head (1A2) - aluminum, removable head (1B2)	32, 57
E 122	Boxes - fiberboard - metal - plastic - wooden	Boxes - fiberboard (4G) - natural wood, ordinary (4C1) - plywood (4D), with metal liner - reconstituted wood (4F) - steel (4A) - aluminum (4B)	
E 123	Dividing partitions - in outer package/ packaging Receptacles - fiberboard - metal - plastic	Boxes - natural wood, ordinary (4C1), with metal liner. - plywood (4D), with metal liner. - reconstituted wood (4F) - with metal liner - steel (4A) - aluminum (4B) - expanded plastic (4H1)	35, 57,
E 124	Reels Receptacles - metal	Boxes - fiberboard (4G) - natural wood, ordinary (4C1) - plywood (4D) - reconstituted wood (4F) - aluminum (4B) Drums - fiberboard (1G) - steel, removable head (1A2) - aluminum, removable head (1B2)	33



Method	Type of inner package/ packaging	Type of outer package/ packaging	Special package / packaging requirements or exceptions */ _/
(1)	(2)	(3)	(4)
E 125	Bags - plastic Reels Sheets - paper, kraft - plastic	Boxes - fiberboard (4G) - natural wood, ordinary (4C1) - plywood (4D) - reconstituted wood (4F) - steel (4A) - aluminum (4B) Drums - steel, removable head (1A2) - aluminum, removable head (1B2)	34
E 126	Reels Receptacles - fiberboard	Boxes - fiberboard (4G) - natural wood, ordinary (4C1) - plywood (4D) - reconstituted wood (4F) - steel (4A) - aluminum (4B) Drums - steel, removable head (1A2) - aluminum, removable head (1B2)	
E 127	Receptacles - fiberboard - metal - plastic	Boxes - fiberboard (4G) - natural wood, ordinary (4C1) - plywood (4D) - reconstituted wood (4F) - steel (4A) - aluminum (4B)	
E 128	Boxes with dividing partitions - fiberboard - plastic - wooden Trays with dividing partitions - fiberboard - plastic - wooden Cans with dividing	Boxes - natural wood, ordinary (4C1) - plywood (4D) - reconstituted wood (4F) - steel (4A) - aluminum (4B) - fiberboard (4G)	23, 36

	partitions. - metal		
--	------------------------	--	--

Method	Type of inner package/ packaging	Type of outer package/ packaging	Special package / packaging requirements or exceptions */ _/
(1)	(2)	(3)	(4)
E 129	Receptacles - fiberboard - plastic - metal Sheets - paper	Boxes - fiberboard (4G) - natural wood, ordinary (4C1) - plywood (4D) - reconstituted wood (4F) Drums - fiberboard (1G)	37
E 130	Receptacles - fiberboard - plastic - metal Sheets - paper	Boxes - fiberboard (4G) - natural wood, ordinary (4C1) - plywood (4D) - reconstituted wood (4F) - expanded plastic (4H1) - steel (4A) - aluminum (4B) Drums - fiberboard (1G) - plastic, removable head (1H2) - steel, removable head (1A2) - aluminum, removable head (1B2)	37
E 133	Dividing partitions in the outer package/ packaging  Receptacles - metal - plastic - fiberboard Sheets - paper, kraft	Boxes - fiberboard (4G) - natural wood, ordinary (4C1) - plywood (4D) - reconstituted wood (4F) - plastic, rigid (4H2) - steel (4A) - aluminum (4B) - plastic, expanded (4H1) Drums - fiberboard (1G) - plastic, removable head (1H2) - steel, removable head (1A2) - aluminum, removable head (1B2)	52
E 134	Receptacles - fiberboard - metal - plastic - wooden	Boxes - fiberboard (4G) - natural wood, ordinary (4C1) - plywood (4D) - reconstituted wood (4F) - steel (4A) - aluminum 94B) Drums - steel, removable head (1A2)	

		- aluminum, removable head (1B2)	
--	--	----------------------------------	--

Method	Type of inner package/ packaging	Type of outer package/ packaging	Special package / packaging requirements or exceptions */ _/
(1)	(2)	(3)	(4)
E 135	Bags - plastic Reels Sheets - paper, kraft - plastic	Boxes - fiberboard (4G) - natural wood, ordinary (4C1) - plywood (4D) - reconstituted wood (4F)	
E 136	Not necessary	Boxes - fiberboard (4G) - natural wood, ordinary (4C1) - plywood (4D) - reconstituted wood (4F) - steel (4A) - aluminum (4B) Drums - fiberboard (1G) - steel, removable head (1A2) - aluminum, removable head (1B2)	32, 57
E 137	Dividing partitions in the outer package/ packaging  Receptacles - fiberboard - metal - plastic - wooden Trays - plastic - wooden	Boxes - natural wood, ordinary (4C1) - plywood (4D) - reconstituted wood (4F) - steel (4A1) - plastic, rigid (4H2) - steel (4A) - aluminum (4B) Drums - steel, removable head (1A2)	38, only for Nos. 0106, 0107, 0257, 0367, 0408, 0409 and 0410  56
E 138	As per specifications of the competent authorities.	Boxes - natural wood, ordinary (4C1) - plywood (4D) - reconstituted wood (4F) - steel (4A) - plastic, rigid (4H2) - aluminum (4B)	

Method	Type of inner package/ packaging	Type of outer package/ packaging	Special packing / packaging requirements or exceptions */ _/
(1)	(2)	(3)	(4)
E 139	Receptacles - metal - plastic - wooden - fiberboard	Boxes - natural wood, ordinary - plywood (4D) - reconstituted wood (4F) - steel (4A) - aluminum (4A) - aluminum (4B) Jerricans - steel, removable head (1A2)	28, only for No. 0121.
E 140	Bags - water-resistant.	Boxes - fiberboard (4G) - natural wood, ordinary (4C1) - plywood (4D) - reconstituted wood (4F) - steel (4A) - aluminum (4B)	
E 141	Receptacles - fiberboard - metal - wooden Sheets - paper Trays - plastic	Boxes - fiberboard (4G) - natural wood, ordinary (4C1) - plywood (4D) - reconstituted wood (4F) - steel (4A) - aluminum (4B)	
E 142	Boxes - fiberboard - metal - plastic - wooden Cans - metal Trays - fiberboard - plastic	Boxes - fiberboard (4G) - natural wood, ordinary (4C1) - plywood (4D) - reconstituted wood (4F) - steel (4A) - aluminum (4B)	41

Method	Type of inner package/ packaging	Type of outer package/ packaging	Special package /
--------	-------------------------------------	-------------------------------------	-------------------

	packaging	packaging	packaging requirements or exceptions */
(1)	(2)	(3)	(4)
	Intermediate: (Not necessary if boxes are used as inner package/ packaging, but mandatory if trays are used. Boxes - fiberboard		
E 143	Boxes - fiberboard - metal - wooden Tubes - fiberboard Trays - plastic	Boxes - natural wood, ordinary (4C1) - plywood (4D) - reconstituted wood (4F) - steel (4A) - aluminum (4B)	
E 145	Receptacles - fiberboard - metal (for explosive rivets) - plastic - wooden	Boxes - fiberboard (4G) - natural wood, ordinary (4C1) - plywood (4D) - reconstituted wood (4F) - steel (4A) - aluminum (4B)	
E 146	Not necessary	As per specifications of the competent authorities.	
E 147	Receptacles - fiberboard - metal	Boxes - fiberboard (4G) - natural wood, ordinary (4C1) - plywood (4D) - reconstituted wood (4F) Drums - fiberboard (1G)	

Method	Type of inner package/ packaging	Type of outer package/ packaging	Special package / packaging requirements or exceptions */ _/
(1)	(2)	(3)	(4)
E 149	As per specifications of the competent authorities.	Boxes - natural wood, ordinary (4C1) - plywood (4D) - reconstituted wood (4F) - rigid plastic (4H2) - steel (4A) - aluminum (4B)	42, 50
E 150	Boxes - fiberboard Receptacles - metal - plastic Sheets - paper, kraft	Boxes - fiberboard (4G) - natural wood, ordinary (4C1) - plywood (4D) - reconstituted wood (4F) - steel (4A) - expanded plastic (4H1) - rigid plastic (4H2) Drums - fiberboard (1G) - plastic, removable head - steel, removable head (1A2) - aluminum, removable head (1B2)	12, 52
E 151	Receptacles - fiberboard - metal - plastic - wooden	Boxes - fiberboard (4G) - natural wood, ordinary (4C1) - plywood (4D) - reconstituted wood (4F) - steel (4A) - aluminum (4B) Drums - fiberboard (1G)	43, 44, 45
E 153	Sheets - fiberboard, corrugated Tubes - fiberboard  <u>INTERMEDIATE:</u> - Receptacles - Fiberboard - Metal - Plastic	Boxes - natural wood, ordinary (4C1) - plywood (4D) - reconstituted wood (4F) - steel (4A) - aluminum (4B)	46





Method	Type of inner package/ packaging	Type of outer package/ packaging	Special packing / packaging requirements or exceptions */ _/
(1)	(2)	(3)	(4)
E 156	Dividing partitions in the outer package/ packaging  Bags - plastic Boxes - fiberboard Tubes - fiberboard - plastic - metal	Boxes - fiberboard (4G) - natural wood, ordinary (4C1) - plywood (4D) - reconstituted wood (4F) - steel (4A) - aluminum (4B)	
E 157	Not necessary	Boxes - natural wood, ordinary (4C1) - plywood (4D) - reconstituted wood (4F) - steel (4A) - aluminum (4B)	
E 158 a)	Bags - paper, kraft - plastic - textile - textile, rubberized.	Boxes - fiberboard (4G) - natural wood, ordinary (4C1) - natural wood, dust-proof walls (4C2) - plywood (4D) - reconstituted wood (4F) - plastic, rigid (4H2) Drums - steel, removable head (1A2) - fiberboard (1G) - plywood (1D)	8, 10,
b)	Receptacles - fiberboard - metal - plastic	Boxes - fiberboard (4G) - natural wood, ordinary (4C1) - natural wood, dust-proof walls - plywood (4D) - reconstituted wood (4F) - plastic, rigid (4H2)	10, 54

**NOM-025-SCT2/1994**  
**59/75**

Method	Type of inner package/ packaging	Type of outer package/ packaging	Special packing / packaging requirements or exceptions */ _/
(1)	(2)	(3)	(4)
c)		Composite packages or packagings plastic receptacles with an outer rigid plastic box (6HH2).	54
E 159 a)	Receptacles - plastic  <u>INTERMEDIATE</u> : Bags - plastic, in metal can	Boxes - natural wood, ordinary (4C1) - plywood (4D) - reconstituted wood (4F)	58
b)	Receptacles - plastic  <u>INTERMEDIATE</u> : Drums - metal.	Drums - steel, removable head (1A2) - aluminum, removable head (1B2)	59

**TABLE V. SPECIAL PACKING AND PACKAGING REQUIREMENTS,  
AND EXCEPTIONS.**

- 1.- Water-soluble substances must be packed or contained in waterproof receptacles.
- 2.- The packages or packagings must be lead free.
- 3.- The barrels and drums must have a watertight seal.
- 4.- When the intermediate package or packaging is a rubber or rubberized textile bag, the intermediate and outer packages or packagings must be filled with water or an appropriate water-saturated material.
- 7.- Metal drums used for powder paste must be so constructed that an increase in inner pressure from internal or external causes cannot cause an explosion.
- 8.- The inside of metal packages or packagings must be galvanized, painted, or otherwise protected. Unprotected steel must not come into contact with the propellant.
- 9.- Steel jerricans or drums must be constructed without cavities or crevices in which smokeless powder could be trapped or retained.
- 10.- Metal receptacles must be so constructed as to reduce the risk of explosion due to the increase of internal pressure from internal or external causes.
- 11.- The inner packages or packagings must be hermetically sealed.
- 12.- Outer boxes made of natural wood may be provided with a tin-plate liner having a hermetically sealed lid.

- 13.- Open ends of inner packages or packagings must have padded caps; if not, the outer package or packaging must be padded.
- 21.- Each intermediate package or packaging must not contain more than 10 inner package or packagings.
- 22.- The inner or intermediate package or packagings must be separated from the outer package or packaging by a gap of 25 mm as a minimum, using separation elements (battens) or cushioning material, for example sawdust.
- 23.- The inner packages or packagings must be separated from the outer package or packaging by a gap of 25 mm as a minimum, filled with cushioning material, for example sawdust or wood wool.
- 24.- Detonators in the inner metal packages or packagings must be immobilized at both ends by cushioning material.
- 28.- Metal inner packages or packagings must be padded with cushioning material.
- 29.- The name of the object concerned must be expressly indicated.
- 30.- The shaped charges must be so packed that contact between them is prevented.
- 31.- The conical cavities of the shaped charges must be placed face-to-face by pairs or groups to minimize the jetting effect of the shaped charge in the event of accidental initiation.
- 32.- The ends of the object must be hermetically sealed. If not, plastic bags must be used as inner packaging.
- 33.- The ends of the detonating fuse must be hermetically sealed and secured.
- 34.- The ends of the detonating fuse must be hermetically sealed. Empty spaces must be filled with packaging material.
- 35.- The packages or packagings must be hermetically sealed to prevent the ingress of water.
- 36.- Objects must be packed with cushioning material to prevent any contact between them.
- 37.- The nozzles of rockets (pyrotechnic devices) must be plugged and the means of ignition fully protected.
- 38.- The fuzes must be separated from each other in the inner package or packaging.

- 41.- The primers must be contained or packed with shock-absorbent layers made of felt, paper or plastic, in order to prevent propagation within the outer package or packaging.
- 42.- The outer plastic package or packagings must be reinforced with metal at the corners and edges.
- 43.- The signalling detonators must be separated, for example with cushioning material, to prevent any contact among them and with the bottom, walls and lid of the outer package or packaging.
- 44.- When the signalling detonators are contained in magazines for automatic units, the magazines may, provided that enough cushioning material is used, replace the inner package or packaging.
- 45.- Tin-plate inner packages or packagings must be hermetically sealed.
- 46.- The charges for sounding devices must be packed separately in sheets of corrugated fiberboard sheets or placed in fiberboard tubes.
- 47.- Absorbent cushioning materials must be inserted.
- 48.- Large-size objects without propelling charge and without means of ignition or initiation may be transported without a package or packaging.
- 49.- Large-size objects without means of initiation, or with means of initiation containing at least two effective protective devices, may be transported without a package or packaging.
- 50.- Large-size objects without means of ignition may be transported without a package or packaging.
- 52.- As regards water-activated objects, see Method E 123.
- 53.- Rubberized bags (5H2) are recommended only for dry TNT, in flakes or nuggets, and a maximum net mass of 30 Kg.
- 54.- Plastic inner packages or packagings must not develop enough static electricity for the contained or packed objects to be activated by the effect of a discharge.
- 55.- Each inner package or packaging must contain not more than 50 g of substance.
- 56.- Fiberboard boxes (4G) must not be used as outer package for Numbers UN 0106 or UN 0107.

- 57.- Liners or inner coatings are required for metal outer packagings (for example, 4A, 4B, 1A2, 1B2), unless another form such as the use of an inner package or packaging or a cushioning material protects the explosive substance from contact with the metal of the outer package or packaging during normal conditions of transport.
- 58.- Plastic receptacles must be covered with a screw closing lid and be not more than 5 liters capacity each. Each receptacle must be contained within an intermediate packaging. Each plastic bag must be covered on all sides with at least 50 mm of non-combustible cushioning material; metal cans in the outer box must also be *[missing/jumbled words]* protected in all directions. Net mass of propellant material must be limited to 30 kg in each package.
- 59.- Intermediate drums must be covered with at least 50 mm of non-combustible absorbent protective material. [A] composite packaging consists of a plastic receptacle in a metal drum that can be used instead of an intermediate packaging[;] the volume of propellant material in each packaging must not exceed 120 liters.

-END-