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Licensing Requirements for Class 1 Explosives

Class 1 explosives need to be handled safely by people who have sufficient knowledge and practical skills and meet certain character requirements.

For this reason, most people (except certain persons carrying out their official duties – see end of this information sheet) must hold a controlled substance licence (CSL) to possess certain class 1 explosives.

These substances must not be **supplied** to anyone who does not hold a CSL. However, a quantity no greater than 15 kg of black powder (gunpowder UN0027) or the substances listed in Table 3, can be supplied to a person holding a firearms licence or firearms dealer’s licence.

A person can transport certain explosives without holding a CSL if they comply with the relevant transport rules.

This information sheet summarises the CSL requirements for explosives in four tables:

- Table 1 lists substances requiring a CSL.
- Table 2 lists substances not requiring a CSL.
- Table 3 lists substances requiring a CSL, firearms licence, or firearms dealer’s licence.
- Table 4 lists substances not requiring a CSL for transportation.

Substances Requiring a CSL

CLASS	UN NUMBER	EXPLOSIVE DESCRIPTION
1.1A	UN0114	Guanyl nitrosaminoguanyltetrazene (Tetrazene) wetted with not less than 30% (by mass) being water or a mixture of alcohol and water.
	UN0129	Lead azide wetted with not less than 20% (by mass) being water or a mixture of alcohol and water.
	UN0130	Lead styphnate (lead trinitroresorcinat) wetted with not less than 20% (by mass) being water or a mixture of alcohol and water.
	UN0135	Mercury fulminate wetted with not less than 20% (by mass) being water or a mixture of alcohol and water.

CLASS	UN NUMBER	EXPLOSIVE DESCRIPTION
1.1B	UN0029	Detonators, non-electric for blasting. Articles consisting of a small metal or plastic tube containing explosives 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.
	UN0030	Detonators, electric for blasting. Articles consisting of a small metal or plastic tube containing explosives 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.
	UN0030	Detonators, electric for blasting (permitted). Articles consisting of a small metal or plastic tube containing explosives 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.
1.1B/1.4B	UN0030/0255	Detonators, electric for blasting. Articles consisting of a small metal or plastic tube containing explosives 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.
1.1B/1.4S	UN0030/0456	Detonators, electric for blasting. Articles consisting of a small metal or plastic tube containing explosives 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.
1.1B	UN0360	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 UN0029.
1.1D	UN0027	Black powder (gunpowder), meal or granular. Substances consisting of a mixture of charcoal, potassium nitrate, and sulphur.
	UN0042	Boosters without detonators. Articles consisting of a plastic or cardboard shell filled with a mixture of PETN and TNT (Pentolite) and the following optional ingredients: RDX, ammonium nitrate, sodium nitrate, potassium nitrate, barium sulphate, plasticisers, and other insert materials.
	UN0048	Charges, demolition. Articles containing a charge of a detonating explosive in a casing of fibreboard, plastics, metal, or other material.
	UN0059	Charges, shaped, without detonators. 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.
1.1D/1.4S	UN0059/0349 UN0059/0441	Charges, shaped, without detonator.
1.1D	UN0065	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.
1.1D/1.4D	UN0065/0289	
1.1D/1.4S	UN0065/0349	

CLASS	UN NUMBER	EXPLOSIVE DESCRIPTION
1.1D	UN0081	Blasting explosives, Type A, and Blasting explosives, Type A (permitted). Substances consisting of liquid organic nitrates such as nitroglycerin or a mixture of such ingredients with one or more of the following: nitrocellulose; ammonium nitrate or other inorganic nitrates; or aromatic nitro-derivatives or combustible materials, such as wood-meal and aluminium powder.
	UN0082	Blasting explosives, Type B. Substances consisting of a mixture of ammonium nitrate, sodium nitrate, and trinitrotoluene, with or without other substances such as wood-meal and aluminium powder.
	UN0082	Blasting explosives, Type B. Substances consisting of a mixture of ammonium nitrate and fuel oil with or without aluminium powder.
	UN0084	Blasting explosives, Type D. Substances consisting of a mixture of organic nitrated compounds and combustible materials such as hydrocarbons and aluminium powder. These explosives do not contain nitroglycerin, similar liquid organic nitrates, chlorates, or ammonium nitrate.
	UN0150	Pentaerythrite tetranitrate (pentaerythritol tetranitrate; PETN) wetted with not less than 25% (by mass) being water, or Pentaerythrite tetranitrate (pentaerythritol tetranitrate; PETN), desensitised with not less than 15% (by mass) being phlegmatiser.
	UN0154	Picric acid—trinitrophenol.
	UN0208	Trinitrophenylmethylnitramine(tetryl).
	UN0209	Trinitrotoluene (TNT).
	UN0241	Blasting explosives, Type E. Substances consisting of water as an essential ingredient and high proportions of ammonium nitrate or other oxidisers, some or all of which are in solution. The other constituents may include nitro-derivatives such as trinitrotoluene, hydrocarbons or aluminium powder, stabilisers and plasticisers, glass micro-balloons, and different oil blends.
	UN0288	Charges, shaped, flexible, linear. Articles consisting of a V-shaped core of a detonating explosive clad by a flexible metal sheath.
1.1D/1.4D	UN0290/0289	Cord (fuse), detonating, metal clad/cord, flexible. Article consisting of a core of detonating explosive clad by a soft metal tube with or without protective covering.
	UN0442/0444	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.
1.1G	UN0333	Fireworks. Display pyrotechnics designed for entertainment and not covered by the Hazardous Substances (Fireworks) Regulations 2001: Bouquets, coloured fires and lights, crackers, fountains, gerbs, lances, maroons, mines, port fires, rockets, roman candles, saxons, scintillettes, serpents, squibs (with or without reports), tourbillions, wheels, and other manufactured fireworks, being in each case fireworks intended for display or entertainment purposes.
1.2C	UN0328	Cartridges for weapons, inert projectile. Ammunition consisting of a projectile without a bursting charge but with a propelling charge.
1.2G	UN0314	Igniters. Articles containing one or more explosive substances used to start deflagration in an explosive train. They may be actuated chemically, electrically, or mechanically.
	UN0334	Fireworks. Display pyrotechnics designed for entertainment and not covered by the Hazardous Substances (Fireworks) Regulations 2001: bouquets, coloured fires and lights, crackers, fountains, gerbs, lances, maroons, mines, port fires, rockets, roman candles, saxons, scintillettes, serpents, squibs (with or without reports), tourbillions, wheels, and other manufactured fireworks, being in each case fireworks intended for display or entertainment purposes.
1.3C	UN0186	Rocket motors. Articles consisting of a solid, liquid, or hypergolic fuel contained in a cylinder fitted with one or more nozzles.
	UN0277	Cartridges, oil well. Articles consisting of a casing of thin fibre, metal, or other material, and containing only propellant that projects a hardened projectile.

CLASS	UN NUMBER	EXPLOSIVE DESCRIPTION
1.3G	UN0101	Fuse, instantaneous non-detonating (Quickmatch). Articles consisting of cotton yarns impregnated with a fine black powder.
	UN0335	Fireworks. Display pyrotechnics designed for entertainment and not covered by the <u>Hazardous Substances (Fireworks) Regulations 2001</u> : bouquets, coloured fires and lights, crackers, fountains, gerbs, lances, maroons, mines, port fires, rockets, roman candles, saxons, scintillettes, serpents, squibs (with or without reports), tourbillions, wheels, and other manufactured fireworks, being in each case fireworks intended for display or entertainment purposes.
	UN0430	Articles, pyrotechnic (for technical purposes). Articles that contain pyrotechnic substances and are used for technical purposes such as heat generation, gas generation, theatrical effects, and the like.
	UN0488	Ammunition, practice. Ammunition without a main bursting charge, containing a burster or expelling charge. Normally, it also contains a fuse and a propelling charge.
1.4B	UN0255	Detonators, electric (for blasting). Articles consisting of a small metal or plastic tube containing explosives such as lead azide, PETN, or combinations of explosives.
	UN0267	Detonators, non-electric (for blasting). Articles consisting of a small metal or plastic tube containing explosives 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.
	UN0361	Detonator assemblies, non-electric (for blasting) as listed under UN0360 detonator assemblies, 1.1B. Articles consisting of a small metal or plastic tube containing explosives such as lead azide, PETN, or combinations of explosives.
1.4C	UN0276	Cartridges, power device. Articles that consist of a casing with a charge of deflagrating explosive and a means of ignition.
	UN0338	Cartridges for weapons, blank or cartridges, small arms, blank. Articles that 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, and in starter pistols, and the like.
	UN0339	Cartridges for weapons, inert projectile or cartridges, small arms. Ammunition that consists of a projectile without a bursting charge but with a propelling charge.
1.4D	UN0410	Fuses, detonating with protective features. Articles designed to start a detonation or a deflagration in ammunition. They incorporate mechanical, electrical, chemical, or hydrostatic components and generally protective features.
1.4E	UN0412	Cartridge for weapons with bursting charges. 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 is 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.

CLASS	UN NUMBER	EXPLOSIVE DESCRIPTION
1.4G	UN0066	Cord, igniter. Articles that consist of textile yarns covered with black powder or another fast burning pyrotechnic composition and with a flexible protective covering, or it consists of a core of black powder surrounded by a flexible woven fabric.
	UN0297	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.
	UN0301	Ammunition, tear-producing. Ammunition that contains toxic agent. It also contains one or more of the following: a pyrotechnic substance, a propelling charge with primer and igniter charge, a fuse with burster or expelling charge.
	UN0303	Ammunition, smoke with or without burster, expelling charge, or propelling charge (other than water-activated ammunition with white phosphorus or phosphides).
	UN0320	Primers, tubular. Articles that consist of a primer for ignition and an auxiliary charge of deflagrating explosive such as black powder used to ignite the propelling charge in a cartridge case for cannon, and the like.
	UN0325	Igniters. Articles that contain one or more explosive substances used to start deflagration in an explosive train.
	UN0336	Fireworks. Display pyrotechnics designed for entertainment and not covered by the Hazardous Substances (Fireworks) Regulations 2001 : Bouquets, coloured fires and lights, crackers, fountains, gerbs, lances, maroons, mines, port fires, rockets, roman candles, saxons, scintillettes, serpents, squibs (with or without reports), tourbillions, wheels, and other manufactured fireworks, being in each case fireworks intended for display or entertainment purposes.
	UN0362	Ammunition, practice. Ammunition without a main bursting charge, containing a burster or expelling charge. Normally, it also contains a fuse and a propelling charge.
1.4S	UN0431	Articles, pyrotechnic (for technical purposes). Articles that contain pyrotechnic substances and are used for technical purposes such as heat generation, gas generation, theatrical effects.
	UN0105	Fuse, safety. Article that consists of a core of fine grained black powder (typically 65% potassium nitrate, 24% sulphur, and 11% carbon), 5 g/m surrounded by a flexible woven fabric with one or more protective outer coverings (bitumen, plastic, or yarn and wax). In some cases, sodium nitrate may be substituted for potassium nitrate.
	UN0131	Lighters, fuse. Articles of various designs actuated by friction, percussion, or electricity and used to ignite safety fuse.
	UN0349	Articles, explosive, not otherwise specified.
1.5D	UN0337	Firework. Display pyrotechnics designed for entertainment and not covered by the Hazardous Substances (Fireworks) Regulations 2001 : bouquets, coloured fires and lights, crackers, fountains, gerbs, lances, maroons, mines, port fires, rockets, roman candles, saxons, scintillettes, serpents, squibs (with or without reports), tourbillions, wheels, and other manufactured fireworks.
	UN0332	Blasting explosives, Type E. Substances consisting of water as an essential ingredient and high proportions of ammonium nitrate or other oxidisers, some or all of which are in solution. The other constituents may include vitro-derivatives such as trinitrotoluene, hydrocarbons, or aluminium powder.

TABLE 1: Substances requiring a CSL

Substances not requiring a CSL

CLASS	UN NUMBER	EXPLOSIVE DESCRIPTION
1.1D	UN0027	Gunpowder only in amounts not exceeding 15 kg provided the person has a firearms licence.
1.2G, 1.3G, 1.4G and 1.4S	UN0092, UN0195, UN0191, UN0197, UN0312, UN0373, UN0405, UN0419, UN0421	Emergency flares and signaling devices.
1.2G	UN0238	Rockets, line throwing.
1.3G, 1.4G and 1.4S	UN0335, UN0336, UN0337	Fireworks in classes that are subject to the Hazardous Substances (Fireworks) Regulations, 2001
1.4G and 1.4S	UN0349, UN0432	Model rocket motors.
1.4G and 1.4S	UN0503	Airbag initiators and seatbelt pre-tensioners.
1.4G	UN0317	Igniting fuses.
1.4S	UN0012, UN0014, UN0044, UN0055	Safety ammunition, including pre-primed cartridges and primers.
1.4S	UN0070	Cable cutters.
1.4S	UN0323	Power device cartridges.
1.4S	UN0349	Signal or shock tubes.
1.4S	UN0432	Cassette degradation devices.
1.4S	UN0454	Igniters.
1.4S	UN0192/UN0193	Signals, railway track, explosive. Articles containing pyrotechnic substances designed to produce signals by means of sound, flame, or smoke, or any combination of them.

TABLE 2: Substances not requiring a CSL

Substances requiring a CSL, Firearms Licence, or Firearms Dealer's Licence

CLASS	UN NUMBER	EXPLOSIVE DESCRIPTION
1.1C/1.3C	UN0160/UN0161 ¹	Smokeless powder (single base, double base, triple base).
1.3C	UN0499	Propellants (solid substances consisting of a deflagrating solid explosive used for propulsion).

TABLE 3: Substances requiring a CSL, Firearms Licence, or Firearms Dealer's Licence (except for transportation, see table 4 below)

Firearms licence and firearms dealer's licence holders may possess less than 15 kg of these substances without holding a CSL or being under the direct supervision of a person who holds a CSL.

Substances not requiring a CSL for transportation

CLASS	UN NUMBER	EXPLOSIVE DESCRIPTION
1.1C/1.3C	UN0160/UN0161 ¹	Smokeless powder (single base, double base, triple base).
1.1D	UN 0027	Black powder (gunpowder) meal or granular substance consisting of a mixture of charcoal, potassium nitrate and sulphur.
1.3C	UN0499	Propellants (solid substances consisting of a deflagrating solid explosive used for propulsion), provided the person has a firearms licence.

TABLE 4: Substances not requiring a CSL for transportation

¹ Smokeless powder contained in total quantities of more than 500 kg is classified as class 1.1 C.

Direct supervision

A person can possess a controlled substance listed in Table 1 above if they are under the direct supervision of an individual who holds a CSL for that substance.

Under direct supervision means that the holder of the CSL is present at all times and immediately available to assist, direct and instruct the person who is being supervised as required. 'Immediately available' means to be within eye and ear shot at all times.

Persons who do not require a CSL to carry out their official duties

The following persons do not require a CSL to possess a class 1 substance listed in Table 1 above when carrying out their official duties:

- an inspector under of the Health and Safety at Work Act 2015 or any person who may exercise the powers of an inspector under the Act
- an enforcement officer appointed under of the Hazardous Substances and New Organisms Act 1996
- a member of the Civil Staff employed by the New Zealand Defence Force under the Defence Act 1990 whose duties include the collection, storage or disposal of explosives
- an ACVM officer appointed under of the Agricultural Compounds and Veterinary Medicines Act 1997
- a person appointed as a Customs officer for the purposes of the Customs and Excise Act 1996
- an authorised person within the meaning of the Fire and Emergency New Zealand Act 2017
- a member of the New Zealand Police
- an aviation security officer employed in the Aviation Security Service under the Civil Aviation Act 2016.

Exception for transport of class 1 substances

A person does not have to hold a CSL to transport a class 1 substance listed in Tables 1 and 3 above if it is being transported by:

- sea, if:
 - the person holds a relevant maritime document issued under [Part 5](#) of the Maritime Transport Act 1994, and
 - [Part 24A](#) of the Maritime Rules (carriage of cargoes-dangerous goods) is complied with
- air, if:
 - the person holds a relevant aviation document issued under [Part 1](#) of the Civil Aviation Act 1990; and
 - the Civil Aviation Rules are complied with
- rail, if
 - the rail wagon or freight container containing the substance is continuously locked or secured (or both)
 - a person holding a CSL is present (except in an emergency) at dispatch and receipt where the wagon or container is opened
 - the [Land Transport Rule: Dangerous Goods 2005](#) is complied with.
- land (for the substances in Table 4 above) if:
 - the quantity of the substance the person possesses at any time is less than 15 kg, and
 - the [Land Transport Rule: Dangerous Goods 2005](#) is complied with.