

Chapter 3

SPECIAL PROVISIONS

Parts of this Chapter are affected by State Variations AE 3, AU 1, AU 2, BY 2, CA 9, HR 3, IR 3, JM 1, KP 2, MO 2, NL 1, OM 3, RP 4, RS 1, US 11, ZA 1; see Table A-1

3.1 Table 3-2 lists the special provisions referred to in column 7 of Table 3-1 and the information contained in them is additional to that shown for the relevant entry. Where the wording of the special provision is equivalent to that in the UN Model Regulations, the UN special provision number is shown in parentheses. Where the wording of the special provision is related to but not equivalent to that in the UN Model Regulations, the UN special provision number preceded by “≈” is shown in parentheses.

3.2 Where a special provision includes a requirement for package marking, the provisions of Part 5;2.2 must be met. If the required mark is in the form of specific wording indicated in quotation marks, the size of the mark must be at least 12 mm, unless otherwise indicated in the special provision or elsewhere in these Instructions.

Table 3-2. Special provisions

<i>TIs</i>	<i>UN</i>
A1	<p>This article or substance may be transported on passenger aircraft only with the prior approval of the appropriate authority of the State of Origin and the State of the Operator under the written conditions established by those authorities. The conditions must include the quantity limitations and packing requirements and these must comply with S-3;1.2.2 of the Supplement. A copy of the document(s) of approval, showing the quantity limitations and packing requirements, must accompany the consignment. Transport in accordance with this special provision must be noted on the dangerous goods transport document. The article or substance may be carried on cargo aircraft in accordance with columns 12 and 13 of Table 3-1.</p> <p>When States, other than the State of Origin and the State of the Operator, have notified ICAO that they require prior approval of shipments made under this special provision, approval must also be obtained from these States, as appropriate.</p>
A2	<p>This article or substance may be transported on cargo aircraft only with the prior approval of the appropriate authority of the State of Origin and the State of the Operator under the written conditions established by those authorities.</p> <p>When States, other than the State of Origin and the State of the Operator, have notified ICAO that they require prior approval of shipments made under this special provision, approval must also be obtained from the States of Transit, Overflight and Destination, as appropriate.</p> <p>In each case, the conditions must include the quantity limitations and packing requirements and these must comply with S-3;1.2.3 of the Supplement. A copy of the document(s) of approval, showing the quantity limitations and the packing and labelling requirements, must accompany the consignment. Transport in accordance with this special provision must be noted on the dangerous goods transport document.</p>
A3	(223) If the chemical or physical properties of a substance covered by this description are such that, when tested, it does not meet the established defining criteria for the class or division listed in column 3, or any other class or division, it is not subject to these Instructions.
A4	<p>Liquids having a vapour inhalation toxicity of Packing Group I are forbidden on both passenger and cargo aircraft.</p> <p>Liquids having a mist inhalation toxicity of Packing Group I are forbidden on a passenger aircraft. They may be carried on cargo aircraft providing they are packed in accordance with the packing instructions for the Packing Group I substance and the maximum net quantity per package does not exceed 5 L, except where the limit specified in column 13 of Table 3-1 is less than 5 L, in which case the limit specified in column 13 applies. Transport in accordance with this special provision must be noted on the dangerous goods transport document.</p>

TIs	UN
A5	Solids having an inhalation toxicity of Packing Group I are forbidden on passenger aircraft. They may be carried on cargo aircraft providing they are packed in accordance with the packing instructions for the Packing Group I substance and the maximum net quantity per package does not exceed 15 kg. Transport in accordance with this special provision must be noted on the dangerous goods transport document.
A6	(43) When offered for carriage as pesticides, these substances must be carried under the relevant pesticide entry and in accordance with the relevant pesticide provisions (see 2;6.2.3 and 2;6.2.4).
A7	Not used.
A8	(322) When transported in non-friable tablet form, these goods are assigned to Packing Group III.
A9	(≈145) Alcoholic beverages containing not more than 70 per cent alcohol by volume, when packed in receptacles of 5 litres or less, are not subject to these Instructions when carried as cargo.
A10	(39) This substance is not subject to these Instructions when it contains less than 30 per cent or not less than 90 per cent silicon.
A11	(305) These substances are not subject to these Instructions when in concentrations of not more than 50 mg/kg.
A12	(45) Antimony sulphides and oxides which contain not more than 0.5 per cent of arsenic calculated on the total mass are not subject to these Instructions.
A13	(47) Ferricyanides and ferrocyanides are not subject to these Instructions.
A14	Not used.
A15	(59) These substances are not subject to these Instructions when they contain not more than 50 per cent magnesium.
A16	(62) This substance is not subject to these Instructions when it does not contain more than 4 per cent sodium hydroxide.
A17	(≈288) These substances must not be classified and transported unless authorized by the appropriate authority of the State in which the dangerous goods were manufactured on the basis of results from Series 2 tests and a Series 6(c) test of the UN <i>Manual of Tests and Criteria</i> on packages as prepared for transport.
A18	(66) Cinnabar is not subject to these Instructions.
A19	(225) Fire extinguishers under this entry may include installed actuating cartridges (cartridges, power device of Division 1.4C or 1.4S), without changing the classification of Division 2.2 provided the total quantity of deflagrating (propellant) explosives does not exceed 3.2 g per extinguishing unit. Fire extinguishers must be manufactured, tested, approved and labelled according to the provisions applied in the State of Manufacture. Fire extinguishers under this entry include: <i>Note.— Provisions applied in the State of Manufacture means the provisions applicable in the State of Manufacture or those applicable in the State of use.</i> a) portable fire extinguishers for manual handling and operation; <i>Note.— Fire extinguishers may be considered portable even if some components that are necessary for their proper functioning (such as hoses and nozzles) are temporarily detached, as long as the safety of the pressurized extinguishing agent containers is not compromised and the fire extinguishers continue to be identified as portable fire extinguishers.</i> b) fire extinguishers for installation in aircraft; c) fire extinguishers mounted on wheels for manual handling; d) fire extinguishing equipment or machinery mounted on wheels or wheeled platforms or units transported similar to (small) trailers; and e) fire extinguishers composed of a non-rollable pressure drum and equipment, and handled, for example, by fork lift or crane when loaded or unloaded. Cylinders which contain gases for use in the above-mentioned extinguishers or for use in stationary firefighting installations must meet the requirements in Part 6;5 and all requirements applicable to the relevant dangerous goods when these cylinders are transported separately.

<i>TIs</i>	<i>UN</i>
A20	During the course of transport this substance must be protected from direct sunlight and all sources of heat and be placed in an adequately ventilated area. A statement to this effect must be included in the dangerous goods transport document.
A21	Not used.
A22	(152) The classification of this substance will vary with particle size and packaging, but borderlines have not been experimentally determined. The appropriate classification must be made using the procedure for the classification of explosives.
A23	(325) In the case of non-fissile or fissile excepted uranium hexafluoride, the material must be classified under UN 2978.
A24	The total quantity of explosive substance contained in the shaped charges and the detonating cord must not exceed 10 kg per assembled perforating gun.
A25	(205) This entry must not be used for Pentachlorophenol (UN 3155).
A26	(119) Refrigerating machines include air conditioning units and machines or other appliances which have been designed for the specific purpose of keeping food or other items at low temperature in an internal compartment. Refrigerating machines and refrigerating machine components are considered not subject to these Instructions if containing less than 12 kg of a gas in Division 2.2 or if containing less than 12 L ammonia solution (UN 2672).
A27	(276) This includes any substance which is not covered by any of the other classes but which has narcotic, noxious or other properties such that, in the event of spillage or leakage on an aircraft, extreme annoyance or discomfort could be caused to crew members so as to prevent the correct performance of assigned duties.
A28	(135) The dihydrated sodium salt of dichloroisocyanuric acid does not meet the criteria for inclusion in Division 5.1 and is not subject to these Instructions unless meeting the criteria for inclusion in another class or division.
A29	(138) p-Bromobenzyl cyanide is not subject to these Instructions.
A30	(273) Maneb and maneb preparations stabilized against self-heating need not be classified in Division 4.2 when it can be demonstrated by testing that a cubic metre of the substance does not self-ignite and that the temperature at the centre of the sample does not exceed 200°C, when the sample is maintained at a temperature of not less than 75°C ± 2°C for a period of 24 hours.
A31	(141) Products which have undergone sufficient heat treatment so they present no hazard during transport are not subject to these Instructions.
A32	(≈289) Safety devices, electrically initiated and safety devices, pyrotechnic installed in vehicles, vessels or aircraft or in completed components such as steering columns, door panels, seats, etc., which are not capable of inadvertent activation are not subject to these Instructions when carried as cargo. The words “not restricted” and the special provision number A32 must be provided on the air waybill when an air waybill is issued.
A33	(103) Ammonium nitrites and mixtures of an inorganic nitrite with an ammonium salt are forbidden.
A34	(113) The transport of chemically unstable mixtures is forbidden.
A35	This substance is not subject to these Instructions when: <ul style="list-style-type: none"> — mechanically produced, particle size of 53 microns or more; or — chemically produced, particle size of 840 microns or more.
A36	The provisions of Special Provision A1 apply to this entry for Packing Group II only.
A37	(≈206) This entry is not intended to include Ammonium permanganate, the transport of which is forbidden under any circumstances.
A38	(207) Moulding compounds may be made from polystyrene, poly(methyl methacrylate) or other polymeric material.
A39	(≈26) This substance possesses some dangerous explosive properties when transported in large volumes.
≠ A40	(28) This substance may be transported under provisions of Class 3 or Division 4.1 only if it is so packed that the percentage of diluent will not fall below that stated at any time during transport (see 2;3.1.4 and 2;4.2.4). In cases where the diluent is not stated, the substance must be packed so that the amount of explosive substance does not exceed the stated value.

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- A41 Permeation devices that contain dangerous goods and that are used for calibrating air quality monitoring devices are not subject to these Instructions when carried as cargo provided the following requirements are met:
- a) Each device must be constructed of a material compatible with the dangerous goods it contains;
 - b) The total contents of dangerous goods in each device is limited to 2 millilitres and the device must not be liquid full at 55°C;
 - c) Each permeation device must be placed in a sealed, high impact-resistant, tubular inner packaging of plastic or equivalent material. Sufficient absorbent material must be contained in the inner packaging to completely absorb the contents of the device. The closure of the inner packaging must be securely held in place with wire, tape or other positive means;
 - d) Each inner packaging must be contained in a secondary packaging constructed of metal, or plastic having a minimum thickness of 1.5 mm. The secondary packaging must be hermetically sealed;
 - e) The secondary packaging must be securely packed in strong outer packaging. The completed package must be capable of withstanding, without breakage or leakage of any inner packaging and without significant reduction in effectiveness:
 - i) the following free drops onto a rigid, non-resilient, flat and horizontal surface from a height of 1.8 m:
 - one drop flat on the bottom;
 - one drop flat on the top;
 - one drop flat on the long side;
 - one drop flat on the short side;
 - one drop on a corner at the junction of three intersecting edges; and
 - ii) a force applied to the top surface for a duration of 24 hours, equivalent to the total weight of identical packages if stacked to a height of 3 m (including the test sample).
- Note.— Each of the above tests may be performed on different but identical packages.*
- f) The gross mass of the completed package must not exceed 30 kg.
- A42 (249) Ferrocerium (lighter flints), stabilized against corrosion, with a minimum iron content of 10 per cent are not subject to these Instructions.
- A43 (210) Toxins from plant, animal or bacterial sources which contain infectious substances, or toxins that are contained in infectious substances, must be classified as Division 6.2.
- A44 (≈251) The entry chemical kit or first-aid kit is intended to apply to boxes, cases, etc., containing small quantities of various dangerous goods which are used, for example, for medical, analytical or testing or repair purposes. Components must not react dangerously (see 4;1.1.8). The packing group assigned to the kit as a whole must be the most stringent packing group assigned to any individual substance in the kit. The assigned packing group must be shown on the dangerous goods transport document. Where the kit contains only dangerous goods to which no packing group is assigned, a packing group must not be indicated on the dangerous goods transport document.
- Such kits must only contain dangerous goods that are permitted as:
- a) excepted quantities not exceeding the quantity indicated by the code in column 9 of Table 3-1, provided that the quantity per inner packaging and quantity per package are as prescribed in 5.1.2 and 5.1.3 and the inner packagings are as prescribed in 5.2 a); or
 - b) limited quantities as prescribed under 3;4.1.2.
- A45 Not used.
- Note.— See Packing Instructions 965-970.*
- A46 (≈216) Mixtures of solids which are not subject to these Instructions and flammable liquids may be transported under this entry without first applying the classification criteria of Division 4.1, providing there is no free liquid visible at the time the substance is packaged and, for single packagings, the packaging must pass a leakproofness test at the Packing Group II level. Sealed packets and articles containing less than 10 mL of a Packing Group II or III flammable liquid absorbed into a solid material are not subject to these Instructions provided there is no free liquid in the packet or articles.

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A47	<p>(219) Genetically modified micro-organisms (GMMOs) and genetically modified organisms (GMOs) packed and marked in accordance with Packing Instruction 959 are not subject to any other requirements in these Instructions when carried as cargo.</p> <p>If GMMOs or GMOs meet the definition in 2.6 of a toxic substance or an infectious substance and meet the criteria for inclusion in Division 6.1 or 6.2, the requirements in these Instructions for transporting toxic substances or infectious substances apply.</p>
A48	Packaging tests are not considered necessary.
A49	(≈127) Other inert material or inert material mixture may be used at the discretion of the appropriate authority of the State in which the dangerous goods were manufactured, provided this inert material has identical phlegmatizing properties.
A50	(≈217) Mixtures of solids which are not subject to these Instructions and toxic liquids may be transported under this entry without first applying the classification criteria of Division 6.1, providing there is no free liquid visible at the time the substance is packaged and, for single packagings, the packaging must pass a leakproofness test at the Packing Group II level. This entry must not be used for solids containing a Packing Group I liquid.
A51	<p>Irrespective of the limit specified in column 11 of Table 3-1, aircraft batteries up to a limit of 100 kg net mass per package may be transported. Transport in accordance with this special provision must be noted on the dangerous goods transport document.</p> <p><i>Note.— This special provision applies to UN 2794 Batteries, wet, filled with acid and UN 2795 Batteries, wet, filled with alkali only.</i></p>
A52	(228) Mixtures not meeting the criteria for flammable gases (Division 2.1) must be transported under UN 3163.
A53	(37) This substance is not subject to these Instructions when coated.
A54	(32) This substance is not subject to these Instructions when in any other form.
A55	(142) Solvent extracted soya bean meal containing not more than 1.5 per cent oil and not more than 11 per cent moisture, which is substantially free of flammable solvent, is not subject to these Instructions.
A56	<p>(235) This entry applies to articles which contain Class 1 explosive substances and which may also contain dangerous goods of other classes. These articles are used to enhance safety in vehicles, vessels or aircraft (such as air bag inflators, air bag modules, seat belt pretensioners and pyromechanical devices).</p> <p><i>Note.— For the carriage of a vehicle, see Packing Instruction 950, 951 and 952.</i></p>
A57	Not used.
A58	(144) An aqueous solution containing not more than 24 per cent alcohol by volume is not subject to these Instructions.
A59	A tire assembly unserviceable or damaged is not subject to these Instructions if the tire is deflated to a gauge pressure of less than 200 kPa at 20°C. A tire assembly with a serviceable tire is not subject to these Instructions provided the tire is not inflated to a gauge pressure exceeding the maximum rated pressure for that tire. However, such tires (including valve assemblies) must be protected from damage during transport, which may require the use of a protective cover.
A60	(215) This entry only applies to the technically pure substance or to formulations derived from it having an SADT higher than 75°C and therefore does not apply to formulations which are self-reactive substances. (For self-reactive substances, see 2.4.2.3. Table 2-6). Homogeneous mixtures containing not more than 35 per cent by mass of azodicarbonamide and at least 65 per cent of inert substance are not subject to these Instructions unless criteria of other classes or divisions are met.
A61	<p>(168) Asbestos which is immersed or fixed in a natural or artificial binder (such as cement, plastics, asphalt, resins or mineral ore) in such a way that no escape of hazardous quantities of respirable asbestos fibres can occur during transport is not subject to these Instructions. Manufactured articles, containing asbestos and not meeting this requirement, are nevertheless not subject to these Instructions, when packed so that no escape of hazardous quantities of respirable asbestos fibres can occur during transport.</p> <p>The words “not restricted” and the special provision number A61 must be provided on the air waybill when an air waybill is issued.</p>
A62	(178) This designation may only be used when no other appropriate designation exists in the list and then only with the approval of the appropriate authority of the State in which the dangerous goods were manufactured.

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A63	Not used.
A64	(306) This entry may only be used for substances that are too insensitive for acceptance into Class 1 when tested in accordance with test series 2 (see UN <i>Manual of Tests and Criteria</i> , Part I).
A65	(270) Aqueous solutions of Division 5.1 inorganic solid nitrate substances are considered as not meeting the criteria of Division 5.1 if the concentration of the substances in solution at the minimum temperature encountered in transport is not greater than 80 per cent of the saturation limit.
A66	(236) Polyester resin kits consist of two components: a base material (either Class 3 or Division 4.1, Packing Group II or III) and an activator (organic peroxide). The organic peroxide must be type D, E or F, not requiring temperature control. The packing group must be Packing Group II or III, according to the criteria for either Class 3 or Division 4.1, as appropriate, applied to the base material.
≠ A67	<p>(≈238) Batteries can be considered as non-spillable provided that they are capable of withstanding the vibration and pressure differential tests given below, without leakage of battery fluid.</p> <p><i>Vibration test:</i> The battery is rigidly clamped to the platform of a vibration machine and a simple harmonic motion having an amplitude of 0.8 mm (1.6 mm maximum total excursion) is applied. The frequency is varied at the rate of 1 Hz/min between the limits of 10 Hz to 55 Hz. The entire range of frequencies and return is traversed in 95 ± 5 minutes for each mounting position (direction of vibration) of the battery. The battery must be tested in three mutually perpendicular positions (to include testing with fill openings and vents, if any, in an inverted position) for equal time periods.</p> <p><i>Pressure differential test:</i> Following the vibration test, the battery is stored for six hours at 24°C ±4°C while subjected to a pressure differential of at least 88 kPa. The battery must be tested in three mutually perpendicular positions (to include testing with fill openings and vents, if any, in an inverted position) for at least six hours in each position.</p> <p><i>Note.— Non-spillable type batteries which are an integral part of, and necessary for the operation of, mechanical or electronic equipment must be securely fastened in the battery holder on the equipment and protected in such a manner so as to prevent damage and short circuits.</i></p> <p>Non-spillable batteries are not subject to these Instructions when carried as cargo if, at a temperature of 55°C, the electrolyte will not flow from a ruptured or cracked case. The battery must not contain any free or unabsorbed liquid. Any electrical battery or battery-powered device, equipment or vehicle must be prepared for transport so as to prevent:</p> <ol style="list-style-type: none"> a short circuit (such as in the case of batteries, by the effective insulation of exposed terminals; or, in the case of equipment, by disconnection of the battery and protection of exposed terminals); and unintentional activation. <p>The words “not restricted” and the special provision number A67 must be provided on the air waybill when an air waybill is issued.</p>
A68	(272) This substance must not be transported under the provisions of Division 4.1 unless specifically authorized by the appropriate national authority. (See UN 0143 or UN 0150 as appropriate.)
≠ A69	<p>The following are not subject to these Instructions when carried as cargo:</p> <ol style="list-style-type: none"> articles other than lamps, such as thermometers, switches and relays, each containing a total quantity of not more than 15 g of mercury or gallium, if they are installed as an integral part of a machine or apparatus and so fitted that shock or impact damage, leading to leakage of mercury or gallium, is unlikely to occur under normal conditions of transport. articles other than lamps, each containing not more than 100 mg of mercury, gallium or inert gas and packaged so that the quantity of mercury, gallium or inert gas per package is 1 g or less. <p>The words “not restricted” and the special provision number A69 must be provided on the air waybill when an air waybill is issued.</p> <p><i>Note.— For lamps containing dangerous goods, see Part 1;2.6.</i></p>

	<i>TIs</i>	<i>UN</i>
#	A70	<p>Internal combustion or fuel cell engines or machinery being shipped either separately or incorporated into a vehicle, machine or other apparatus, without batteries or other dangerous goods, are not subject to these Instructions when carried as cargo provided that:</p> <ol style="list-style-type: none"> for liquid-fuel-powered engines: <ol style="list-style-type: none"> the engine is powered by a liquid fuel that does not meet the classification criteria for any class or division; or the fuel tank of the vehicle, machine or other apparatus has never contained any fuel or the fuel tank has been flushed and purged of vapours and adequate measures taken to nullify the hazard; and the entire fuel system of the engine has no free liquid and all fuel lines are sealed or capped or securely connected to the engine and vehicle, machinery or apparatus. for flammable-gas-powered internal combustion or fuel cell engines: <ol style="list-style-type: none"> the entire fuel system must have been flushed, purged and filled with a non-flammable gas or fluid to nullify the hazard; the final pressure of the non-flammable gas used to fill the system does not exceed 200 kPa at 20°C; the shipper has made prior arrangements with the operator; and the shipper has provided the operator with written or electronic documentation stating that the flushing, purging and filling procedure has been followed and that the final contents of the engine(s) have been tested and verified to be non-flammable. <p>Multiple engines may be shipped in a unit load device provided that the shipper has made prior arrangements with the operator(s) for each shipment.</p> <p>When this special provision is used, the words “not restricted” and the special provision number A70 must be provided on the air waybill when an air waybill is issued.</p>
A71	(38)	This substance is not subject to these Instructions when it contains not more than 0.1 per cent calcium carbide.
A72	(163)	A substance specifically listed by name in Table 3-1 must not be transported under this entry. Substances transported under this entry may contain 20 per cent or less nitrocellulose provided the nitrocellulose contains not more than 12.6 per cent nitrogen.
A73	(237)	<p>The membrane filters, including paper separators, coating, or backing materials, etc., that are present in transport, must not be liable to propagate a detonation as tested by one of the tests described in the <i>UN Manual of Tests and Criteria</i>, Part I, Test Series 1(a).</p> <p>In addition, the appropriate authority may determine, on the basis of the results of suitable burning rate tests taking account of the standard tests in the <i>UN Manual of Tests and Criteria</i>, Part III, subsection 33.2.1, that nitrocellulose membrane filters in the form in which they are to be transported are not subject to the provisions of these Instructions applicable to flammable solids in Division 4.1.</p>
A74	(169)	Phthalic anhydride in the solid state and tetrahydrophthalic anhydrides, with not more than 0.05 per cent maleic anhydride, are not subject to these Instructions. Phthalic anhydride molten at a temperature above its flash point, with not more than 0.05 per cent maleic anhydride, must be classified under UN 3256.
A75		<p>Articles such as sterilization devices, when containing less than 30 mL per inner packaging with not more than 150 mL per outer packaging, may be transported on passenger and cargo aircraft in accordance with the provisions in 3;5, irrespective of the indication of “forbidden” in columns 10 to 13 of Table 3-1, provided such packagings were first subjected to comparative fire testing. Comparative fire testing between a package as prepared for transport (including the substance to be transported) and an identical package filled with water must show that the maximum temperature measured inside the packages during testing does not differ by more than 200°C. Packagings may include a vent to permit the slow escape of gas (that is, not more than 0.1 mL/hour per 30 mL inner packaging at 20°C) produced from gradual decomposition.</p> <p>The requirements of 4;1.1.6, 4;1.1.12 and 4;7.1.2 do not apply.</p>
A76	(326)	In the case of fissile uranium hexafluoride, the material must be classified under UN 2977.

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A77 (≈218) Mixtures of solids which are not subject to these Instructions and corrosive liquids may be transported under this entry without first applying the classification criteria of Class 8, providing there is no free liquid visible at the time the substance is packaged and, for single packagings, the packaging must pass a leakproofness test at the Packing Group II level.

A78 (≈172) Where a radioactive material has a subsidiary hazard(s):

- a) The substance must be allocated to Packing Group I, II or III, if appropriate, by application of the packing group criteria provided in Part 2 corresponding to the nature of the predominant subsidiary hazard.
- b) Packages must be labelled with subsidiary hazard labels corresponding to each subsidiary hazard exhibited by the material in accordance with the relevant provisions of 5;3.2; corresponding placards must be affixed to cargo transport units in accordance with the relevant provisions of 5;3.6.
- c) For the purposes of documentation and package marking, the proper shipping name must be supplemented with the name of the constituents which most predominantly contribute to this subsidiary hazard(s) and which must be enclosed in parenthesis. However, where the constituent is listed by name in Table 3-1 and:
 - i) “forbidden” is shown in columns 10 and 11, the dangerous goods transport document must indicate Cargo Aircraft Only and the package must bear cargo aircraft only labels, except that the substance may be shipped on a passenger aircraft with the prior approval of the appropriate authority of the State of Origin and the State of the Operator under the conditions established by those authorities. A copy of the document of approval, showing the quantity limitations and the packaging requirements, must accompany the consignment; and
 - ii) “forbidden” is shown in columns 12 and 13, the substance is forbidden for transport by air except that the substance may be shipped on a cargo aircraft with the prior approval of the appropriate authority of the State of Origin and the State of the Operator under the conditions established by those authorities. A copy of the document of approval, showing the quantity limitations and the packaging requirements, must accompany the consignment.

Radioactive material with a subsidiary hazard of Division 4.2 in Packing Group I must be transported in Type B packages. These may be transported on passenger or cargo aircraft.

- d) The dangerous goods transport document must indicate the class or division of the subsidiary hazard and, where assigned, the packing group as required by 5;4.1.4.1 d) and e).

For packing, see also 4;9.1.5.

A79 (307) This entry may only be used for ammonium nitrate fertilizers. They must be classified in accordance with the procedure as set out in the *Manual of Tests and Criteria*, Part III, Section 39.

A80 (220) The technical name of the flammable liquid component only of this solution or mixture must be shown in parenthesis immediately following the proper shipping name.

A81 The quantity limits shown in columns 11 and 13 do not apply to body parts, organs or whole bodies.

A82 (177) Barium sulphate is not subject to these Instructions.

A83 (208) The commercial grade of calcium nitrate fertilizer, when consisting mainly of a double salt (calcium nitrate and ammonium nitrate) containing not more than 10 per cent ammonium nitrate and at least 12 per cent water of crystallization, is not subject to these Instructions.

A84 (182) The group of alkali metals includes lithium, sodium, potassium, rubidium and caesium.

A85 (183) The group of alkaline earth metals includes magnesium, calcium, strontium and barium.

A86 (241) The formulation must be prepared so that it remains homogeneous and does not separate during transport. Formulations with low nitrocellulose contents are not subject to these Instructions provided that 1) they do not exhibit dangerous properties when tested for their liability to detonate, deflagrate or explode when heated under defined confinement by tests of test series 1(a), 2(b) and 2(c) respectively in the UN *Manual of Tests and Criteria* and 2) they are not flammable solids when tested in accordance with test N1 in the UN *Manual of Tests and Criteria*, Part III, subsection 3.3.2.1.4 (chips, if necessary, crushed and sieved to a particle size of less than 1.25 mm).

A87 Articles which are not fully enclosed by packaging, crates or other means that prevent ready identification are not subject to the marking requirements of 5;2 or the labelling requirements of 5;3.

<i>TIs</i>	<i>UN</i>	
≠ A88		<p>Pre-production prototypes of lithium cells or batteries, or sodium ion cells or batteries, when these prototypes are transported for testing or low production runs (that is, annual production runs consisting of not more than 100 lithium cells or batteries, or sodium ion cells or batteries) of lithium cells or batteries, or sodium ion cells or batteries that have not been tested to the requirements in Part III, subsection 38.3 of the UN <i>Manual of Tests and Criteria</i> may be transported aboard cargo aircraft if approved by the appropriate authority of the State of Origin and the State of the Operator and the requirements in Packing Instruction 910 of the Supplement are met.</p> <p>A copy of the document of approval including the quantity limitations must accompany the consignment. Transport in accordance with this special provision must be noted on the dangerous goods transport document.</p> <p>Irrespective of the limit specified in column 13 of Table 3-1, the cell or battery as prepared for transport may have a mass exceeding 35 kg.</p>
A89	(186)	Not used.
A90	(193)	This entry may only be used for ammonium nitrate based compound fertilizers. They must be classified in accordance with the procedure as set out in the UN <i>Manual of Tests and Criteria</i> , Part III, Section 39.
A91	(198)	A nitrocellulose solution containing not more than 20 per cent nitrocellulose may be transported under the requirements for “Paint”, “Perfumery products” or “Printing ink” as applicable; see UN 1210, UN 1263, UN 1266, UN 3066, UN 3469 and UN 3470.
A92	(199)	Lead compounds which, when mixed in a ratio of 1:1000 with 0.07 M hydrochloric acid and stirred for 1 hour at a temperature of 23°C ±2°C, exhibit a solubility of 5 per cent or less (see ISO 3711:1990 “ <i>Lead chromate pigments and lead chromate-molybdate pigments – Specifications and methods of test</i> ”) are considered insoluble and are not subject to these Instructions unless they meet the criteria for inclusion in another hazard class or division.
A93		A heat-producing article is not subject to these Instructions when the heat-producing component or the energy source is removed to prevent unintentional functioning during transport. The words “not restricted” and the special provision number A93 must be provided on the air waybill when an air waybill is issued.
A94	(≈239)	<p>Batteries or cells containing sodium must not contain dangerous goods other than sodium, sulphur or sodium compounds (such as sodium polysulphides and sodium tetrachloroaluminate). Batteries or cells must not be offered for transport at a temperature such that liquid elemental sodium is present in the battery or cell unless approved and under the conditions established by the appropriate national authority.</p> <p>Cells must consist of hermetically sealed metal casings which fully enclose the dangerous goods and which are so constructed and closed as to prevent the release of the dangerous goods under normal conditions of transport.</p> <p>Batteries must consist of cells secured within and fully enclosed by a metal casing so constructed and closed as to prevent the release of the dangerous goods under normal conditions of transport.</p>
A95	(203)	This entry is not to be used for Polychlorinated biphenyls (UN 2315).
A96	(196)	Only formulations which in laboratory testing neither detonate in the cavitated state nor deflagrate, which show no effect when heated under confinement and which exhibit no explosive power may be transported under this entry. The formulation must also be thermally stable (that is, the SADT is 60°C or higher for a 50 kg package). Formulations not meeting these criteria must be transported under the appropriate provisions of Division 5.2.
A97		These entries must be used for substances which are hazardous to the environment but do not meet the classification criteria of any other class or other substance within Class 9. This must be based on the criteria as indicated in 2;9.2 a). This designation may also be used for wastes not otherwise subject to these Instructions but which are covered under the <i>Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal</i> .
A98		Aerosols, gas cartridges and receptacles, small, containing gas with a capacity not exceeding 50 ml, containing no constituents subject to these Instructions other than a Division 2.2 gas, are not subject to these Instructions when carried as cargo unless their release could cause extreme annoyance or discomfort to crew members so as to prevent the correct performance of assigned duties. The words “not restricted” and the special provision number A98 must be provided on the air waybill when an air waybill is issued.

<i>TIs</i>	<i>UN</i>	
≠ A99		<p>Irrespective of the quantity limits for cargo aircraft specified in column 13 of Table 3-1, and in Section I of Packing Instructions 965, 966, 967, 968, 969, 970, 976, 977 and 978, a lithium cell or battery, or sodium ion cell or battery (that is, UN 3090, UN 3480 or UN 3551), including when packed with equipment or contained in equipment (that is, UN 3091, UN 3481 or UN 3552) that meets the other requirements of Section I of the applicable packing instruction, may have a mass exceeding 35 kg, if approved by the appropriate authority of the State of Origin and the State of the Operator and the requirements in Packing Instruction 974 of the Supplement are met.</p> <p>A copy of the document of approval must accompany the consignment. Transport in accordance with this special provision must be noted on the dangerous goods transport document.</p>
A100	(243)	Gasoline, motor spirit and petrol for use in spark-ignition engines (such as in automobiles, stationary engines and other engines) must be assigned to this entry regardless of variations in volatility.
A101	(227)	When phlegmatized with water and inorganic inert material, the content of urea nitrate may not exceed 75 per cent by mass, and the mixture must not be capable of being detonated by the series 1 type (a) test in the UN <i>Manual of Tests and Criteria</i> , Part I.
A102	(244)	This entry includes aluminium dross, aluminium skimmings, spent cathodes, spent potliner and aluminium salt slags.
A103	(≈291)	<p>Flammable liquefied gases must be contained within refrigerating machine components. These components must be designed and tested to at least three times the working pressure of the machinery. The refrigerating machines must be designed and constructed to contain the liquefied gas and preclude the risk of bursting or cracking of the pressure-retaining components during normal conditions of transport. Refrigerating machines and refrigerating machine components are considered not subject to these Instructions if containing less than 100 g flammable, non-toxic, liquefied gas.</p>
A104		Not used.
A105	(242)	Sulphur is not subject to these Instructions when it has been formed to a specific shape (such as prills, granules, pellets, pastilles or flakes).
A106		<p>This entry may only be used for samples of chemicals taken for analysis in connection with the implementation of the Chemical Weapons Convention.</p> <p>They may be transported on a passenger or cargo aircraft providing prior approval has been granted by the appropriate authority of the State of Origin or the Director General of the Organization for the Prohibition of Chemical Weapons and providing the samples comply with the requirements shown against the entry for chemical samples in Table S-3-1 of the Supplement.</p> <p>The substance is assumed to meet the criteria of Packing Group I for Division 6.1. Subsidiary hazard labelling is not required.</p> <p>A copy of the document of approval showing the quantity limitations and the packing requirements must accompany the consignment.</p> <p><i>Note.— The transport of substances under this description must be in accordance with chain of custody and security procedures specified by the Organization for the Prohibition of Chemical Weapons.</i></p>

TIs	UN
≠ A107	(≈301) This entry only applies to articles such as machinery, apparatus or devices containing dangerous goods as a residue or as an integral element of the articles. It must not be used for articles for which a proper shipping name already exists in Table 3-1. Where the quantity of dangerous goods exceeds the limits permitted by Packing Instruction 962, and the dangerous goods meet the provisions of Special Provision 301 of the UN Model Regulations, the articles may be transported only with the prior approval of the appropriate authority of the State of Origin and the State of the Operator under the written conditions established by those authorities. Notwithstanding the quantities specified in Packing Instruction 962, articles may also contain up to 5 kg of UN 3077 – Environmentally hazardous substance, solid, n.o.s. and/or 5 L of UN 3082 – Environmentally hazardous substance, liquid, n.o.s. The quantity of environmentally hazardous substance must not be indicated on the dangerous goods transport document. Articles containing only UN 3077 – Environmentally hazardous substance, solid, n.o.s. and/or UN 3082 – Environmentally hazardous substance, liquid, n.o.s. in quantities not exceeding 5 kg or 5 L, respectively, are not subject to these Instructions. <i>Note.— Where the quantity of dangerous goods in the article exceeds the quantity permitted by Special Provision 301 of the UN Model Regulations, or the dangerous goods are not permitted as limited quantity by the UN Model Regulations, classification of the article must be in accordance with Part 2, Introductory Chapter, 6.1 to 6.6.</i>
A108	The provisions of Special Provision A1 apply to this entry for Packing Group I only.
A109	Not used.
A110	(226) Formulations of these substances containing not less than 30 per cent non-volatile, non-flammable phlegmatizer are not subject to these Instructions.
A111	Oxygen generators, chemical, that have passed their expiration date, are unserviceable or that have been used are forbidden for transport.
A112	Consumer commodities may only include substances of Class 2 (non-toxic aerosols only), Class 3, Packing Group II or III, Division 6.1 (Packing Group III only), UN 3077, UN 3082, UN 3175, UN 3334 and UN 3335 provided such substances do not have a subsidiary hazard. Dangerous goods that are forbidden for transport aboard passenger aircraft must not be transported as consumer commodities.
A113	(279) The substance is assigned to this classification or Packing Group based on human experience rather than the strict application of classification criteria set out in the Instructions.
A114	(283) Articles, containing gas, intended to function as shock absorbers, including impact energy absorbing devices, or pneumatic springs are not subject to these Instructions provided: <ul style="list-style-type: none"> a) each article has a gas space capacity not exceeding 1.6 litres and a charge pressure not exceeding 280 bar where the product of the capacity (litres) and charge pressure (bars) does not exceed 80 (that is, 0.5 litre gas space and 160 bar charge pressure, 1 litre gas space and 80 bar charge pressure, 1.6 litre gas space and 50 bar charge pressure, 0.28 litre gas space and 280 bar charge pressure); b) each article has a minimum burst pressure of 4 times the charge pressure at 20°C for products not exceeding 0.5 litre gas space capacity and 5 times charge pressure for products greater than 0.5 litre gas space capacity; c) each article is manufactured from material which will not fragment upon rupture; d) each article is manufactured in accordance with a quality assurance standard acceptable to the appropriate national authority; and e) the design type has been subjected to a fire test demonstrating that pressure in the article is relieved by means of a fire-degradable seal or other pressure-relief device such that the article will not fragment and the article does not rocket.

TIs	UN
≠ A115	<p>(280) This entry applies to safety devices for vehicles, vessels or aircraft, such as air bag inflators, air bag modules, seat belt pretensioners, and pyromechanical devices and which contain dangerous goods of Class 1 or dangerous goods of other classes and when transported as component parts and if these articles as presented for transport have been tested in accordance with test series 6 (c) of Part I of the UN <i>Manual of Tests and Criteria</i>, with no explosion of the device, no fragmentation of the device casing or pressure receptacle, and no projection hazard or thermal effect which would significantly hinder firefighting or other emergency response efforts in the immediate vicinity.</p> <p>This entry does not apply to life saving appliances described in Packing Instruction 955 (UN Nos. 2990 and 3072) or to fire suppressant dispersing devices (UN Nos. 0514 and 3559).</p>
A116	(≈284) An oxygen generator, chemical, when containing an explosive actuating device must only be transported under this entry when excluded from Class 1 in accordance with 2;1.1 b).
A117	Wastes containing Category A infectious substances must be assigned to UN 2814, UN 2900 or UN 3549, as applicable. Wastes transported under UN 3291 are wastes containing infectious substances in Category B or wastes that are reasonably believed to have a low probability of containing infectious substances. Decontaminated wastes which previously contained infectious substances may be considered as not subject to these Instructions unless the criteria of another class or division are met.
A118	<p>Items classified as explosive must be removed from vehicles and transported in accordance with the provisions of these Instructions unless authorized by the appropriate national authority under the written conditions established by that authority. In such circumstances, vehicles may be transported on cargo aircraft only.</p> <p><i>Note.— This special provision does not apply where the explosives are a smoke candle installed as a permanent part of the vehicle or are part of an assembly classified as dangerous goods of other than Class 1, such as Air bag inflators, Air bag modules and Seat-belt pretensioners (UN 3268), Fire extinguishers (UN 1044). Additionally, this special provision does not apply in the case of Air bag modules and Air bag inflators and Seat-belt pretensioners (UN 0503) installed in the vehicle.</i></p>
A119	Irrespective of the limit specified in column 13 of Table 3-1, a handling device meeting the requirements of Packing Instruction 961 as prepared for transport may have a gross mass not exceeding 1 000 kg.
A120	This entry includes but is not limited to automobiles, motorcycles, aircraft, boats, snowmobiles, jet skis, etc.
A121	Not used.
A122	(286) Nitrocellulose membrane filters covered by this entry, each with a mass not exceeding 0.5 g, are not subject to these Instructions when contained individually in an article or a sealed packet.
≠ A123	<p>This entry applies to Batteries, electric storage, not otherwise listed in Table 3-1. Examples of such batteries are: alkali-manganese, zinc-carbon and nickel-cadmium batteries. Any electrical battery or battery-powered device, equipment or vehicle must be prepared for transport so as to prevent:</p> <ul style="list-style-type: none"> a) a short circuit (such as in the case of batteries, by the effective insulation of exposed terminals; or, in the case of equipment, by disconnection of the battery and protection of exposed terminals); and b) unintentional activation. <p>The words “not restricted” and the special provision number A123 must be provided on the air waybill when an air waybill is issued.</p> <p>Devices such as radio frequency identification (RFID) tags, watches and temperature loggers, which are not capable of generating a dangerous evolution of heat, may be transported when intentionally active. When active, these devices must meet defined standards for electromagnetic radiation to ensure that the operation of the device does not interfere with aircraft systems. The devices must not be capable of emitting disturbing signals (such as buzzing alarms, strobe lights, etc.) during transport.</p>
A124	(292) Not used.
A125	<p>(293) The following definitions apply to matches:</p> <ul style="list-style-type: none"> a) Fusee matches are matches the heads of which are prepared with a friction-sensitive igniter composition and a pyrotechnic composition which burns with little or no flame, but with intense heat; b) Safety matches are matches combined with or attached to the box, book or card which can be ignited by friction only on a prepared surface;

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		<ul style="list-style-type: none"> c) Strike anywhere matches are matches that can be ignited by friction on a solid surface; d) Wax Vesta matches are matches that can be ignited by friction either on a prepared surface or on a solid surface.
A126		Not used.
A127		Not used.
A128	(153)	This entry only applies if it is demonstrated, on the basis of tests, that the substances, when in contact with water are not combustible nor show a tendency to auto-ignition and that the mixture of gases evolved is not flammable.
≠ A129	(252)	<p>Ammonium nitrate hot concentrated solutions can be transported under this entry provided:</p> <ul style="list-style-type: none"> a) the solution contains not more than 93 per cent ammonium nitrate; b) the solution contains at least 7 per cent water; c) the solution contains not more than 0.2 per cent combustible material; d) the solution contains no chlorine compounds in quantities such that the chloride ion level exceeds 0.02 per cent; e) the pH of an aqueous solution of 10 per cent of the substance is between 5 and 7, measured at 25°C; and f) the maximum allowable transport temperature of the solution is 140°C. <p>Ammonium nitrate hot concentrate solutions are not subject to these Instructions when carried as cargo, provided:</p> <ul style="list-style-type: none"> a) the solution contains not more than 80 per cent ammonium nitrate; b) the solution contains not more than 0.2 per cent combustible material; c) the ammonium nitrate remains in solution under all conditions of transport; and d) the solution does not meet the criteria of any other class or division.
A130	(290)	<p>When this radioactive material meets the definitions and criteria of other classes or divisions as defined in Part 2, it must be classified in accordance with the following:</p> <ul style="list-style-type: none"> a) Where the substance meets the criteria for dangerous goods in excepted quantities as set out in 3;5, the packagings must be in accordance with 3;5.2 and meet the testing requirements of 3;5.3. All other requirements applicable to radioactive material, excepted packages as set out in 1;6.1.5 apply without reference to the other class or division; b) Where the quantity exceeds the limits specified in 3;5.1.2, the substance must be classified in accordance with the predominant subsidiary hazard. The dangerous goods transport document must describe the substance with the proper shipping name and UN number applicable to the other class supplemented with the name applicable to the radioactive excepted package according to column 1 of the Dangerous Goods List, and must be transported in accordance with the provisions applicable to that UN number. An example of the information shown on the dangerous goods transport document is: <ul style="list-style-type: none"> UN 1993 Flammable liquid, n.o.s. (ethanol and toluene mixture), Radioactive material, excepted package – limited quantity of material, Class 3, PG II <p>The radioactive material, excepted package label (Figure 5-33) is not required on packages meeting the conditions set out in this sub-paragraph. To aid acceptance, it is recommended that “A130” be indicated on the dangerous goods transport document. In addition, the requirements of 2;7.2.4.1.1 apply;</p> c) The provisions of 3;4 for the transport of dangerous goods packed in limited quantities do not apply to substances classified in accordance with sub-paragraph b); d) When the substance meets a special provision that excepts this substance from all dangerous goods provisions of the other classes, it must be classified in accordance with the applicable UN number of Class 7 and all requirements specified in 1;6.1.5 apply.

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A131	<p>(342) Glass inner receptacles (such as ampoules or capsules) intended only for use in sterilization devices, when containing less than 30 mL of ethylene oxide per inner packaging with not more than 300 mL per outer packaging, may be transported in accordance with the provisions in 3;5, irrespective of the indication of “forbidden” in columns 10 to 13 of Table 3-1, provided that:</p> <ul style="list-style-type: none"> a) after filling, each glass inner receptacle has been determined to be leak-tight by placing the glass inner receptacle in a hot water bath at a temperature, and for a period of time, sufficient to ensure that an internal pressure equal to the vapour pressure of ethylene oxide at 55°C is achieved. Any glass inner receptacle showing evidence of leakage, distortion or other defect under this test must not be transported under the terms of this special provision; b) in addition to the packaging required by 3;5.2, each glass inner receptacle is placed in a sealed plastic bag compatible with ethylene oxide and capable of containing the contents in the event of breakage or leakage of the glass inner receptacle; and c) each glass inner receptacle is protected by a means of preventing puncture of the plastic bag (such as sleeves or cushioning) in the event of damage to the packaging (such as by crushing).
A132	<p>(204) Articles containing smoke-producing substance(s) corrosive according to the criteria for Class 8 must be labelled with a “Corrosive” subsidiary hazard label. Articles containing smoke-producing substance(s) toxic by inhalation according to the criteria for Division 6.1 must be labelled with a “TOXIC” subsidiary hazard label (Figure 5-18).</p>
A133	<p>(311) Substances must not be transported under this entry unless approved by the appropriate national authority on the basis of the results of appropriate tests according to Part I of the UN <i>Manual of Tests and Criteria</i>. Packaging must ensure that the percentage of diluent does not fall below that stated in the appropriate authority approval at any time during transport.</p>
A134	<p>(312) Not used.</p>
A135	<p>(313) Not used.</p>
A136	<p>(314) a) These substances are liable to exothermic decomposition at elevated temperatures. Decomposition can be initiated by heat or by impurities (such as powdered metals (iron, manganese, cobalt, magnesium) and their compounds).</p> <p>b) During the course of transport, these substances must be shaded from direct sunlight and all sources of heat and be placed in adequately ventilated areas.</p>
A137	<p>(315) This entry must not be used for Division 6.1 substances that meet the inhalation toxicity criteria for Packing Group I described in 2;6.2.2.4.3.</p>
A138	<p>(316) This entry applies only to calcium hypochlorite, dry, when transported in non-friable tablet form.</p>
A139	<p>(317) “Fissile-excepted” applies only to those packages complying with 2;7.2.3.5.</p>
A140	<p>(318) For the purposes of documentation, the proper shipping name must be supplemented with the technical name (see 1.2.7). Technical names need not be shown on the package. When the infectious substances to be transported are unknown, but suspected of meeting the criteria for inclusion in category A and assignment to UN 2814 or UN 2900, the words “suspected category A infectious substance” must be shown, in parentheses, following the proper shipping name on the transport document, but not on the outer packagings.</p>
A141	<p>Not used.</p>
A142	<p>Not used.</p>
A143	<p>(321) These storage systems must always be considered as containing hydrogen.</p>
A144	<p>Protective breathing equipment (PBE) containing a small chemical oxygen generator for use by aircrew members may be transported on passenger aircraft in accordance with Packing Instruction 565 subject to the following conditions:</p> <ul style="list-style-type: none"> a) the PBE must be serviceable and contained in the manufacturer’s original unopened inner packaging (that is, vacuum sealed bag and protective container); b) the PBE may only be consigned by, or on behalf of, an operator in the event that a PBE(s) has been rendered unserviceable or has been used and there is a need to replace such items so as to restore the number of PBEs on an aircraft to that required by pertinent airworthiness requirements and operating regulations;

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		<ul style="list-style-type: none"> c) a maximum of two PBE may be contained in a package; d) the statement “Aircrew protective breathing equipment (smoke hood) in accordance with Special Provision A144” must be: <ul style="list-style-type: none"> (i) included on the dangerous goods transport document; (ii) marked adjacent to the proper shipping name on the package. <p>If the above conditions are met, the requirements of Special Provision A1 do not apply. All other requirements applicable to chemical oxygen generators must apply except that the “cargo aircraft only” handling label must not be displayed.</p>
A145		Waste aerosols, waste gas cartridges and waste receptacles, small, containing gas are forbidden from air transport. Waste gas cartridges and waste receptacles, small, containing gas that were filled with gases of Division 2.2 and have been pierced are not subject to these Instructions.
≠ A146	(328)	<p>This entry applies to fuel cell cartridges including when contained in equipment or packed with equipment. Fuel cell cartridges installed in or integral to a fuel cell system are regarded as contained in equipment. Fuel cell cartridge means an article that stores fuel for discharge into the fuel cell through a valve(s) that controls the discharge of fuel into the fuel cell. Fuel cell cartridges, including when contained in equipment, must be designed and constructed to prevent fuel leakage under normal conditions of transport.</p> <p>Fuel cell cartridge design types using liquids as fuels must pass an internal pressure test at a pressure of 100 kPa (gauge) without leakage.</p> <p>Except for fuel cell cartridges containing hydrogen in metal hydride which must be in compliance with A162, each fuel cell cartridge design type, including fuel cell cartridges installed in or integral to a fuel cell system, must be shown to pass a 1.2 metre drop test onto an unyielding surface in the orientation most likely to result in failure of the containment system with no loss of contents.</p> <p>When lithium metal batteries, lithium ion batteries or sodium ion batteries are contained in the fuel cell system, the consignment must be consigned under this entry and under the appropriate entries for UN 3091 Lithium metal batteries contained in equipment, UN 3481 Lithium ion batteries contained in equipment or UN 3552 Sodium ion batteries contained in equipment.</p>
A147	(329)	Not used.
A148	(330)	Not used.
A149		Not used.
A150		An additional subsidiary hazard label may be required by a Note found adjacent to the technical name entry in Table 2-7.
A151		When dry ice is used as a refrigerant for other than dangerous goods loaded in a unit load device, the quantity limits per package shown in columns 11 and 13 of Table 3-1 for dry ice do not apply. In such case, the unit load device must be identified to the operator and must allow the venting of the carbon dioxide gas to prevent a dangerous build-up of pressure.
A152		Insulated packagings conforming to the requirements of Packing Instruction 202 containing refrigerated liquid nitrogen fully absorbed in a porous material are not subject to these Instructions provided the design of the insulated packaging would not allow the build-up of pressure within the container and would not permit the release of any refrigerated liquid nitrogen irrespective of the orientation of the insulated packaging and any outer packaging or overpack used is closed in a way that will not allow the build-up of pressure within that packaging or overpack. When used to contain substances not subject to these Instructions, the words “not restricted” and the special provision number A152 must be provided on the air waybill when an air waybill is issued.
A153		Not used.

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≠	A154	(≈376) Lithium ion cells or batteries, lithium metal cells or batteries and sodium ion cells or batteries, identified as being defective for safety reasons, that have the potential of producing a dangerous evolution of heat, fire or short circuit are forbidden for transport (such as those being returned to the manufacturer for safety reasons or cells or batteries that cannot be diagnosed as defective prior to transport).
		Lithium ion cells or batteries, lithium metal cells or batteries and sodium ion cells or batteries, identified as being damaged such that they do not conform to the type tested according to the applicable provisions of the <i>UN Manual of Tests and Criteria</i> are forbidden for transport. For the purposes of this special provision, these may include, but are not limited to:
		a) cells or batteries that have leaked or vented;
		b) cells or batteries that cannot be diagnosed prior to transport; or
		c) cells or batteries that have sustained physical or mechanical damage.
		In assessing a cell or battery as defective or damaged, an assessment or evaluation must be performed based on safety criteria from the cell, battery or product manufacturer or by a technical expert with knowledge of the cell's or battery's safety features. An assessment or evaluation may include, but is not limited to, the following criteria:
		a) acute hazard, such as gas, fire, or electrolyte leaking;
		b) the use or misuse of the cell or battery;
		c) signs of physical damage, such as deformation to cell or battery casing, or colours on the casing;
		d) external and internal short circuit protection, such as voltage or isolation measures;
		e) the condition of the cell or battery safety features; or
		f) damage to any internal safety components, such as the battery management system.
	A155	(332) Magnesium nitrate hexahydrate is not subject to these Instructions.
	A156	(333) Ethanol and gasoline, motor spirit or petrol mixtures for use in spark-ignition engines (such as in automobiles, stationary engines and other engines) must be assigned to this entry regardless of variations in volatility.
	A157	(334) A fuel cell cartridge may contain an activator provided it is fitted with two independent means of preventing unintended mixing with the fuel during transport.
	A158	(335) Mixtures of solids which are not subject to these Instructions and liquids or solids classified by the shipper as environmentally hazardous substances (UN 3077 and 3082) (see Special Provision A97) may be transported under this entry, provided there is no free liquid visible at the time the substance is loaded or at the time the packaging is closed. Sealed packets and articles containing less than 10 mL of an environmentally hazardous liquid, absorbed into a solid material but with no free liquid in the packet or article, or containing less than 10 g of an environmentally hazardous solid, are not subject to these Instructions.
	A159	(336) A single package of non-combustible solid LSA-II or LSA-III material must not contain an activity greater than 3000 A ₂ .
	A160	(337) Type B(U) and Type B(M) packages, must not contain activities greater than the following:
		a) For low dispersible radioactive material: as authorized for the package design as specified in the certificate of approval;
		b) For special form radioactive material: 3000 A ₁ or 100 000 A ₂ , whichever is the lower; or
		c) For all other radioactive material: 3000 A ₂ .
	A161	(338) Each fuel cell cartridge transported under this entry and designed to contain a liquefied flammable gas must:
		a) be capable of withstanding, without leakage or bursting, a pressure of at least two (2) times the equilibrium pressure of the contents at 55°C;
		b) not contain more than 200 mL liquefied flammable gas, the vapour pressure of which must not exceed 1 000 kPa at 55°C; and
		c) pass the hot water bath test prescribed in 6;5.4.1.

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A162 (339) Fuel cell cartridges containing hydrogen in a metal hydride transported under this entry must have a water capacity less than or equal to 120 mL.

The pressure in the fuel cell cartridge must not exceed 5 MPa at 55°C. The design type must withstand, without leaking or bursting, a pressure of two (2) times the design pressure of the cartridge at 55°C or 200 kPa more than the design pressure of the cartridge at 55°C, whichever is greater. The pressure at which this test is conducted is referred to in the drop test and the hydrogen cycling test as the “minimum shell burst pressure”.

Fuel cell cartridges must be filled in accordance with procedures provided by the manufacturer. The manufacturer must provide the following information with each fuel cell cartridge:

- a) inspection procedures to be carried out before initial filling and before refilling of the fuel cell cartridge;
- b) safety precautions and potential hazards to be aware of;
- c) method for determining when the rated capacity has been achieved;
- d) minimum and maximum pressure range;
- e) minimum and maximum temperature range; and
- f) any other requirements to be met for initial filling and refilling including the type of equipment to be used for initial filling and refilling.

The fuel cell cartridges must be designed and constructed to prevent fuel leakage under normal conditions of transport. Each cartridge design type, including cartridges integral to a fuel cell, must be subjected to and must pass the following tests:

Drop test

A 1.8 metre drop test onto an unyielding surface in four different orientations:

- a) vertically, on the end containing the shut-off valve assembly;
- b) vertically, on the end opposite to the shut-off valve assembly;
- c) horizontally, onto a steel apex with a diameter of 38 mm, with the steel apex in the upward position; and
- d) at a 45° angle on the end containing the shut-off valve assembly.

There must be no leakage, determined by using a soap bubble solution or other equivalent means on all possible leak locations, when the cartridge is charged to its rated charging pressure. The fuel cell cartridge must then be hydrostatically pressurized to destruction. The recorded burst pressure must exceed 85 per cent of the minimum shell burst pressure.

Fire test

A fuel cell cartridge filled to rated capacity with hydrogen must be subjected to a fire engulfment test. The cartridge design, which may include a vent feature integral to it, is deemed to have passed the fire test if:

- a) the internal pressure vents to zero gauge pressure without rupture of the cartridge; or
- b) the cartridge withstands the fire for a minimum of 20 minutes without rupture.

Hydrogen cycling test

This test is intended to ensure that a fuel cell cartridge design stress limits are not exceeded during use.

The fuel cell cartridge must be cycled from not more than 5 per cent rated hydrogen capacity to not less than 95 per cent rated hydrogen capacity and back to not more than 5 per cent rated hydrogen capacity. The rated charging pressure must be used for charging and temperatures must be held within the operating temperature range. The cycling must be continued for at least 100 cycles.

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Following the cycling test, the fuel cell cartridge must be charged, and the water volume displaced by the cartridge must be measured. The cartridge design is deemed to have passed the hydrogen cycling test if the water volume displaced by the cycled cartridge does not exceed the water volume displaced by an uncycled cartridge charged to 95 per cent rated capacity and pressurized to 75 per cent of its minimum shell burst pressure.

Production leak test

Each fuel cell cartridge must be tested for leaks at $15^{\circ}\text{C} \pm 5^{\circ}\text{C}$, while pressurized to its rated charging pressure. There must be no leakage, determined by using a soap bubble solution or other equivalent means on all possible leak locations.

Each fuel cell cartridge must be permanently marked with the following information:

- a) the rated charging pressure in megapascals (MPa);
- b) the manufacturer's serial number of the fuel cell cartridges or unique identification number; and
- c) the date of expiry based on the maximum service life (year in four digits; month in two digits).

- A163 (340) Chemical kits, first-aid kits and polyester resin kits containing dangerous goods in inner packagings which do not exceed the quantity limits for excepted quantities applicable to individual substances as specified in column 9 of Table 3-1 may be transported in accordance with 3;5. Division 5.2 substances, although not individually permitted as excepted quantities in Table 3-1, are permitted in such kits and are assigned Code E2 (see 5.1.2).
- ≠ A164 Not used.
- A165 (347) This entry may only be used if the results of Test Series 6 (d) of Part I of the UN *Manual of Tests and Criteria* have demonstrated that any hazardous effects arising from functioning are confined within the package (see 2;1.4.2.1).
- A166 (343) This entry applies to crude oil containing hydrogen sulphide in sufficient concentration that vapours evolved from the crude oil can present an inhalation hazard. The packing group assigned must be determined by the flammability hazard and inhalation hazard, in accordance with the degree of danger presented.
- A167 (344) The provisions of 6;5.4 must be met.
- A168 (348) Not used.
- Note.— See Packing Instructions 965 to 967.*
- A169 (349) Mixtures of a hypochlorite with an ammonium salt are not to be accepted for transport. UN 1791 **Hypochlorite solution** is a substance of Class 8.
- A170 (350) Ammonium bromate and its aqueous solutions and mixtures of a bromate with an ammonium salt are forbidden for transport.
- A171 (351) Ammonium chlorate and its aqueous solutions and mixtures of a chlorate with an ammonium salt are forbidden for transport.
- A172 (352) Ammonium chlorite and its aqueous solutions and mixtures of a chlorite with an ammonium salt are forbidden for transport.
- A173 (353) Ammonium permanganate and its aqueous solutions and mixtures of a permanganate with an ammonium salt are forbidden for transport.
- A174 (354) Not used.
- A175 (355) Oxygen cylinders for emergency use transported under this entry may include installed actuating cartridges (cartridges, power device of Division 1.4, Compatibility Group C or S), without changing the classification of Division 2.2 provided the total quantity of deflagrating (propellant) explosives does not exceed 3.2 g per oxygen cylinder. The cylinders with the installed actuating cartridges as prepared for transport must have an effective means of preventing inadvertent activation.

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A176	(356) Metal hydride storage systems installed in vehicles, vessels, machinery, engines or aircraft or in completed components or intended to be installed in vehicles, vessels, machinery, engines or aircraft must be approved by the appropriate national authority before acceptance for transport. Transport in accordance with this special provision must be noted on the dangerous goods transport document. The dangerous goods transport document must include an indication that the package was approved by the appropriate national authority or a copy of the appropriate national authority approval must accompany each consignment.
A177	(357) Petroleum crude oil containing hydrogen sulphide in sufficient concentration that vapours evolved from the crude oil can present an inhalation hazard must be consigned under the entry UN 3494 Petroleum sour crude oil, flammable, toxic.
A178	<p>Security type equipment such as attaché cases, cash boxes, cash bags, etc., incorporating dangerous goods, for example lithium batteries, gas cartridges and/or pyrotechnic material, are not subject to these Instructions if the equipment complies with the following:</p> <ul style="list-style-type: none"> a) The equipment must be equipped with an effective means of preventing accidental activation; b) If the equipment contains an explosive or pyrotechnic substance or an explosive article, this article or substance must be excluded from Class 1 by the appropriate national authority of the State of Manufacture in compliance with Part 2;1.5.2.1; c) If the equipment contains lithium cells or batteries, these cells or batteries must comply with the following restrictions: <ul style="list-style-type: none"> 1) for a lithium metal cell, the lithium content is not more than 1 g; 2) for a lithium metal or lithium alloy battery, the aggregate lithium content is not more than 2 g; 3) for lithium ion cells, the Watt-hour rating (see Attachment 2) is not more than 20 Wh; 4) for lithium ion batteries, the Watt-hour rating is not more than 100 Wh; 5) each cell or battery is of the type proven to meet the requirements of each test in the UN <i>Manual of Tests and Criteria</i>, Part III, section 38.3; d) If the equipment contains gases to expel dye or ink, only gas cartridges and receptacles, small, containing gas with a capacity not exceeding 50 mL, containing no constituents subject to these Instructions other than a Division 2.2 gas, are allowed. The release of gas must not cause extreme annoyance or discomfort to crew members so as to prevent the correct performance of assigned duties. In case of accidental activation, all hazardous effects must be confined within the equipment and must not produce extreme noise. e) Security type equipment that is defective or that has been damaged is forbidden for transport. <p>The words "not restricted" and the special provision number A178 must be provided on the air waybill when an air waybill is issued.</p>
A179	For UN 3077, irrespective of the maximum net quantities specified in columns 11 and 13 of Table 3-1, intermediate bulk containers (IBCs) with a maximum net quantity not exceeding 1 000 kg are permitted in accordance with Packing Instruction 956.

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A180		<p>Non-infectious specimens, such as specimens of mammals, birds, amphibians, reptiles, fish, insects and other invertebrates containing small quantities of UN 1170, UN 1198, UN 1987 or UN 1219 are not subject to these Instructions provided the following packing and marking requirements are met:</p> <ol style="list-style-type: none"> specimens are: <ol style="list-style-type: none"> wrapped in paper towel and/or cheesecloth moistened with alcohol, an alcohol solution or a formaldehyde solution and then placed in a plastic bag that is heat-sealed. Any free liquid in the bag must not exceed 30 mL; or placed in vials or other rigid containers with no more than 30 mL of alcohol, an alcohol solution or a formaldehyde solution; the prepared specimens are then placed in a plastic bag that is then heat-sealed; the bagged specimens are then placed inside another plastic bag with absorbent material then heat-sealed; the finished bag is then placed in a strong outer packaging with suitable cushioning material; the total quantity of flammable liquid per outer packaging must not exceed 1 L; and the completed package is marked “scientific research specimens, not restricted Special Provision A180 applies”. <p>The words “not restricted” and the special provision number A180 must be provided on the air waybill when an air waybill is issued.</p>
A181		<p>When a package contains a combination of lithium batteries contained in equipment and lithium batteries packed with equipment, the following requirements apply:</p> <ol style="list-style-type: none"> the shipper must ensure that all applicable parts of both packing instructions are met. The total mass of lithium batteries contained in any package must not exceed the limits for passenger aircraft or cargo aircraft, as applicable; the package must be marked UN 3091 Lithium metal batteries packed with equipment, or UN 3481 Lithium ion batteries packed with equipment, as appropriate. If a package contains both lithium metal batteries and lithium ion batteries packed with and contained in equipment, the package must be marked as required for both battery types. However, button cell batteries installed in equipment (including circuit boards) need not be considered; the dangerous goods transport document must include the wording “UN 3091 Lithium metal batteries packed with equipment” or “UN 3481 Lithium ion batteries packed with equipment”, as appropriate. If a package contains both lithium metal batteries and lithium ion batteries packed with and contained in equipment, then the dangerous goods transport document must include the wording “UN 3091 Lithium metal batteries packed with equipment” and “UN 3481 Lithium ion batteries packed with equipment”.
A182		Equipment containing only lithium batteries must be classified as either UN 3091 or UN 3481.
≠ A183		Waste cells and batteries and cells or batteries being shipped for recycling or disposal are forbidden from air transport unless approved by the appropriate national authority of the State of Origin and the State of the Operator.
A184	(304)	This entry may only be used for the transport of non-activated batteries which contain dry potassium hydroxide and which are intended to be activated prior to use by the addition of an appropriate amount of water to the individual cells.
≠ A185	(360)	<p>Vehicles only powered by lithium metal, lithium ion or sodium ion batteries must be assigned to UN 3556 Vehicle, lithium ion battery powered or UN 3557 Vehicle, lithium metal battery powered or UN 3558 Vehicle, sodium ion battery powered, as applicable.</p> <p>Lithium batteries installed in cargo transport units, designed only to provide power external to the transport unit must be assigned to UN 3536 Lithium batteries installed in cargo transport unit.</p>

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A186 (361) This entry applies to electric double layer capacitors with an energy storage capacity greater than 0.3 Wh. Capacitors with an energy storage capacity of 0.3 Wh or less are not subject to these Instructions. Energy storage capacity means the energy held by a capacitor, as calculated using the nominal voltage and capacitance. All capacitors to which this entry applies, including capacitors containing an electrolyte that does not meet the classification criteria of any class or division of dangerous goods, must meet the following conditions:

- a) capacitors not installed in equipment must be transported in an uncharged state. Capacitors installed in equipment must be transported either in an uncharged state or protected against a short circuit;
- b) each capacitor must be protected against a potential short circuit hazard in transport as follows:
 - i) when a capacitor's energy storage capacity is less than or equal to 10 Wh or when the energy storage capacity of each capacitor in a module is less than or equal to 10 Wh, the capacitor or module must be protected against a short circuit or be fitted with a metal strap connecting the terminals; and
 - ii) when the energy storage capacity of a capacitor or a capacitor in a module is more than 10 Wh, the capacitor or module must be fitted with a metal strap connecting the terminals;
- c) capacitors containing dangerous goods must be designed to withstand a 95 kPa pressure differential;
- d) capacitors must be designed and constructed to safely relieve pressure that may build up in use, through a vent or a weak point in the capacitor casing. Any liquid which is released upon venting must be contained by the packaging or by the equipment in which a capacitor is installed; and
- e) capacitors manufactured after 31 December 2013 must be marked with the energy storage capacity in Wh.

Capacitors containing an electrolyte not meeting the classification criteria of any class or division of dangerous goods, including when installed in equipment, are not subject to other provisions of these Instructions.

Capacitors containing an electrolyte meeting the classification criteria of any class or division of dangerous goods, with an energy storage capacity of 10 Wh or less are not subject to other provisions of these Instructions when they are capable of withstanding a 1.2 metre drop test unpackaged on an unyielding surface without loss of contents.

Capacitors containing an electrolyte meeting the classification criteria of any class or division of dangerous goods that are not installed in equipment and with an energy storage capacity of more than 10 Wh are subject to these Instructions.

Capacitors installed in equipment and containing an electrolyte meeting the classification criteria of any class or division of dangerous goods are not subject to other provisions of these Instructions provided the equipment is packaged in a strong outer packaging constructed of suitable material and of adequate strength and design in relation to the packaging's intended use and in such a manner as to prevent accidental functioning of capacitors during transport. Large robust equipment containing capacitors may be offered for transport unpackaged or on pallets when capacitors are afforded equivalent protection by the equipment in which they are contained.

Note.— Capacitors which by design maintain a terminal voltage (such as asymmetrical capacitors) do not belong to this entry.

A187 (362) This entry applies to liquids, pastes or powders, pressurized with a propellant which meets the definition of a gas in 2;2.1.1 and 2;2.1.2 a) or b).

Note.— A chemical under pressure in an aerosol dispenser must be transported under UN 1950.

The following provisions must apply:

- a) The chemical under pressure must be classified based on the hazard characteristics of the components in the different states:
 - i) the propellant;
 - ii) the liquid; or
 - iii) the solid.

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If one of these components, which can be a pure substance or a mixture, needs to be classified as flammable, the chemical under pressure must be classified as flammable in Division 2.1. Flammable components are flammable liquids and liquid mixtures, flammable solids and solid mixtures or flammable gases and gas mixtures meeting the following criteria:

- i) a flammable liquid is a liquid having a flashpoint of not more than 93°C;
- ii) a flammable solid is a solid which meets the criteria in 2;4.2.2 of these Instructions;
- iii) a flammable gas is a gas which meets the criteria in 2;2.2.1 of these Instructions;
- b) gases of Division 2.3 and gases with a subsidiary hazard of 5.1 must not be used as a propellant in a chemical under pressure;
- c) where the liquid or solid components are classified as dangerous goods of Division 6.1, Packing Groups II or III, or Class 8, Packing Groups II or III, the chemical under pressure must be assigned a subsidiary hazard of Division 6.1 or Class 8 and the appropriate UN number must be assigned. Components classified in Division 6.1, Packing Group I, or Class 8, Packing Group I, must not be used for transport under this proper shipping name;
- d) in addition, chemicals under pressure with components meeting the properties of: Class 1, explosives; Class 3, liquid desensitized explosives; Division 4.1, self-reactive substances and solid desensitized explosives; Division 4.2, substances liable to spontaneous combustion; Division 4.3, substances which, in contact with water, emit flammable gases; Division 5.1, oxidizing substances; Division 5.2, organic peroxides; Division 6.2, infectious substances; or Class 7, radioactive material, must not be used for transport under this proper shipping name;
- e) Chemicals under pressure containing components forbidden for transport on both passenger and cargo aircraft (columns 10 to 13 of Table 3-1) must not be transported by air.

A188 (359) Nitroglycerin solution in alcohol with more than 1 per cent but not more than 5 per cent nitroglycerin must be classified in Class 1 and assigned to UN 0144 if not all the requirements of Packing Instruction 371 are complied with.

A189 Except where the defining criteria of another class or division are met, concentrations of formaldehyde solution:

- with less than 25 per cent but not less than 10 per cent formaldehyde must be classified as UN 3334 **Aviation regulated liquid, n.o.s.**; and
- with less than 10 per cent formaldehyde are not subject to these Instructions.

≠ A190 (373) Neutron radiation detectors containing non-pressurized boron trifluoride gas may be transported under this entry provided that:

- a) radiation detectors containing more than 1 g of boron trifluoride and radiation detection systems containing neutron radiation detectors as components may be transported on cargo aircraft in accordance with all applicable requirements of these Instructions irrespective of the indication of “forbidden” in columns 12 and 13 of Table 3-1, provided the following conditions are met:

- i) each radiation detector must meet the following conditions:
 - 1) the pressure in each neutron radiation detector must not exceed 105 kPa absolute at 20°C;
 - 2) the amount of gas must not exceed 13 g per detector;
 - 3) each detector must be manufactured under a registered quality assurance programme;

Note.— The application of ISO 9001:2008 may be considered acceptable for this purpose.

- 4) each neutron radiation detector must be of welded metal construction with brazed metal to ceramic feed through assemblies. These detectors must have a minimum burst pressure of 1 800 kPa as demonstrated by design type qualification testing; and
- 5) each detector must be tested to a 1×10^{-10} cm³/s leaktightness standard before filling.

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- ii) radiation detectors transported as individual components must be transported as follows:
 - 1) they must be packed in a sealed intermediate plastic liner with sufficient absorbent or adsorbent material to absorb or adsorb the entire gas contents;
 - 2) they must be packed in strong outer packagings and the completed package must be capable of withstanding a 1.8 m drop test without leakage of gas contents from detectors; and
 - 3) the total amount of gas from all detectors per outer packaging must not exceed 52 g.
- iii) completed neutron radiation detector systems containing detectors meeting the conditions of sub-paragraph i) must be transported as follows:
 - 1) the detectors must be contained in a strong sealed outer casing;
 - 2) the casing must contain sufficient absorbent or adsorbent material to absorb or adsorb the entire gas contents; and
 - 3) the completed system must be packed in strong outer packagings capable of withstanding a 1.8 m drop test without leakage unless a system's outer casing affords equivalent protection.
- iv) each package must bear a "toxic gas" and "corrosive" hazard label irrespective of no labels being indicated in column 5;
- v) transport in accordance with this special provision must be noted on the dangerous goods transport document. A packing instruction must not be shown on the transport document.

If the above conditions are met, the requirements of Special Provision A2 do not apply.

- b) neutron radiation detectors containing not more than 1 g of boron trifluoride, including those with solder glass joints, and radiation detection systems containing such detectors are not subject to these instructions when carried as cargo, provided the following conditions are met:
 - i) each radiation detector must meet the requirements in sub-paragraph a) i) and be packed in accordance with sub-paragraph a) ii);
 - ii) radiation detection systems containing such detectors must be packed in accordance with sub-paragraph a) iii); and
 - iii) the words "not restricted" and the special provision number A190 must be provided on the air waybill when an air waybill is used.

If the above conditions are met, the requirements of Special Provision A2 do not apply.

A191 Notwithstanding the Division 6.1 subsidiary hazard shown in column 4 of Table 3-1, the toxic subsidiary hazard label and an indication of this subsidiary hazard on the dangerous goods transport document are not required when the manufactured articles contain not more than 5 kg of mercury. Transport in accordance with this special provision must be noted on the dangerous goods transport document.

A192 (367) For the purposes of documentation and package marking:

- the proper shipping name **Paint related material** may be used for consignments of packages containing paint and paint related material in the same package;
- the proper shipping name **Paint related material, corrosive, flammable** may be used for consignments of packages containing paint, corrosive, flammable and paint related material, corrosive, flammable in the same package;
- the proper shipping name **Paint related material, flammable, corrosive** may be used for consignments of packages containing paint, flammable, corrosive and paint related material, flammable, corrosive in the same package; and
- the proper shipping name **Printing ink related material** may be used for consignments of packages containing printing ink and printing ink related material in the same package.

A193 (368) In the case of non-fissile or fissile-excepted uranium hexafluoride, the material must be classified under UN 3507 or UN 2978.

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A194	<p>(369) In accordance with Part 2, Introductory Chapter, paragraph 4, this radioactive material in an excepted package possessing toxic and corrosive properties is classified in Division 6.1 with radioactive and corrosive subsidiary hazards.</p> <p>Uranium hexafluoride may be classified under this entry only if the conditions of 2;7.2.4.1.1.2, 2;7.2.4.1.1.5, 2;7.2.4.5.2 and, for fissile-excepted material, of 2;7.2.3.6 are met.</p> <p>In addition to the provisions applicable to the transport of Division 6.1 substances with a corrosive subsidiary hazard, the provisions of 5;1.2.2.2, 5;1.6.3, 7;1.6 and 7;3.2.1 to 7;3.2.4 apply.</p> <p>No Class 7 label is required to be displayed.</p>
≠ A195	<p>(371) 1) This entry also applies to articles containing a small pressure receptacle with a release device. Such articles must comply with the following requirements:</p> <ul style="list-style-type: none"> a) the water capacity of the pressure receptacle must not exceed 0.5 litres and the working pressure must not exceed 25 bar at 15°C; b) the minimum burst pressure of the pressure receptacle must be at least four times the pressure of the gas at 15°C; c) each article must be manufactured in such a way that unintentional firing or release is avoided under normal conditions of handling, packing, transport and use. This may be achieved by an additional locking device linked to the activator; d) each article must be manufactured in such a way as to prevent hazardous projections of the pressure receptacle or parts of the pressure receptacle; e) each pressure receptacle must be manufactured from material which will not fragment upon rupture; f) the design type of the article must be subjected to a fire test. For this test, the provisions of paragraphs 16.6.1.2, except sub-paragraph g), 16.6.1.3.1 to 16.6.1.3.1.4, 16.6.1.3.6, 16.6.1.3.7 b) and 16.6.1.3.8 of the <i>UN Manual of Tests and Criteria</i> must be applied. It must be demonstrated that the article relieves its pressure by means of a fire degradable seal or other pressure relief device, in such a way that the pressure receptacle will not fragment and that the article or fragments of the article do not rocket more than 10 metres; and g) the design type of the article must be subjected to the following test. A stimulating mechanism must be used to initiate one article in the middle of the packaging. There must be no hazardous effects outside the package such as disruption of the package, metal fragments or a receptacle which passes through the packaging. <p>2) The manufacturer must produce technical documentation of the design type, manufacture as well as the tests and their results. The manufacturer must apply procedures to ensure that articles produced in a series are made of good quality, conform to the design type and are able to meet the requirements in 1). The manufacturer must provide such information to the appropriate national authority on request.</p>
A196	<p>(372) This entry applies to asymmetric capacitors with an energy storage capacity greater than 0.3 Wh. Capacitors with an energy storage capacity of 0.3 Wh or less are not subject to these Instructions.</p> <p>Energy storage capacity means the energy stored in a capacitor, as calculated according to the following equation:</p> $Wh = 1/2 C_N (U_R^2 - U_L^2) \times (1/3600),$ <p>using the nominal capacitance (C_N), rated voltage (U_R) and rated lower limit voltage (U_L).</p> <p>All asymmetric capacitors to which this entry applies must meet the following conditions:</p> <ul style="list-style-type: none"> a) capacitors or modules must be protected against short circuit; b) capacitors must be designed and constructed to safely relieve pressure that may build up in use, through a vent or a weak point in the capacitor casing. Any liquid which is released upon venting must be contained by packaging or by equipment in which a capacitor is installed;

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- c) capacitors manufactured after 31 December 2015 must be marked with the energy storage capacity in Wh; and
- d) capacitors containing an electrolyte meeting the classification criteria of any class or division of dangerous goods must be designed to withstand a 95 kPa pressure differential.

Capacitors containing an electrolyte not meeting the classification criteria of any class or division of dangerous goods, including when configured in a module or when installed in equipment, are not subject to other provisions of these Instructions.

Capacitors containing an electrolyte meeting the classification criteria of any class or division of dangerous goods, with an energy storage capacity of 20 Wh or less, including when configured in a module, are not subject to other provisions of these Instructions when the capacitors are capable of withstanding a 1.2 m drop test unpackaged on an unyielding surface without loss of contents.

Capacitors containing an electrolyte meeting the classification criteria of any class or division of dangerous goods that are not installed in equipment and with an energy storage capacity of more than 20 Wh are subject to these Instructions.

Capacitors installed in equipment and containing an electrolyte meeting the classification criteria of any class or division of dangerous goods are not subject to other provisions of these Instructions provided that the equipment is packaged in a strong outer packaging constructed of suitable material, and of adequate strength and design, in relation to the packaging's intended use and in such a manner as to prevent accidental functioning of capacitors during transport. Large robust equipment containing capacitors may be offered for transport unpackaged or on pallets when capacitors are afforded equivalent protection by the equipment in which they are contained.

*Note.— Notwithstanding the provisions of this special provision, nickel-carbon asymmetric capacitors containing Class 8 alkaline electrolytes must be transported as UN 2795, **Batteries, wet, filled with alkali, electric storage.***

A197 (375) These substances when transported in single or combination packagings containing a net quantity per single or inner packaging of 5 L or less for liquids or having a net mass per single or inner packaging of 5 kg or less for solids, are not subject to any other provisions of these Instructions provided the packagings meet the general provisions of 4;1.1.1, 4;1.1.3.1 and 4;1.1.5.

A198 Hay, straw and bhusa, when not wet, damp or contaminated with oil are not subject to these Instructions.

≠ A199 Nickel-metal hydride batteries or nickel-metal hydride battery-powered devices, equipment or vehicles are not subject to these Instructions provided they are prepared for transport so as to prevent:

- a) a short circuit (such as in the case of batteries, by the effective insulation of exposed terminals, or, in the case of equipment, by disconnection of the battery and protection of exposed terminals); and
- b) unintentional activation.

The words "not restricted" and the special provision number A199 must be provided on the air waybill when an air waybill is issued.

Devices such as RFID tags, watches and temperature loggers, which are not capable of generating a dangerous evolution of heat, may be transported when intentionally active. When active, these devices must meet defined standards for electromagnetic radiation to ensure that the operation of the device does not interfere with aircraft systems. The devices must not be capable of emitting disturbing signals (such as buzzing alarms, strobe lights, etc.) during transport.

A200 This entry applies to packagings that contain residues of dangerous goods and which no longer meet the provisions of Part 6. These packagings are forbidden for transport by air. Such packagings or parts thereof must be transported in accordance with Part 4;1.1.15 of these Instructions.

≠ A201 In instances where other forms of transport (including cargo aircraft) are impracticable, lithium and sodium ion cells or batteries may be transported as Class 9 (UN 3480, UN 3090 or UN 3551) on passenger aircraft with the prior approval of the authority of the State of Origin, the State of the Operator and the State of Destination under the written conditions established by those authorities, provided that the quantities per package do not exceed:

- a) for lithium metal cells or batteries:
 - 1) up to 2 batteries with a lithium content more than 0.3 g but not more than 2 g per battery; or

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- 2) up to 8 cells with a lithium content more than 0.3 g but not more than 1 g per cell; or
 - 3) up to 2.5 kg of cells and/or batteries with a lithium content not more than 0.3 g per cell or battery; or
- b) for lithium ion cells or batteries:
- 1) up to 2 batteries with a Watt-hour (Wh) rating more than 2.7 Wh but not more than 100 Wh per battery; or
 - 2) up to 8 cells with a Watt-hour rating more than 2.7 Wh but not more than 20 Wh per cell; or
 - 3) up to 2.5 kg of cells and/or batteries with a Watt-hour rating not more than 2.7 Wh per cell or battery; or
- c) for sodium ion cells or batteries:
- 1) up to 2 batteries with a Watt-hour (Wh) rating more than 2.7 Wh but not more than 100 Wh per battery; or
 - 2) up to 8 cells with a Watt-hour rating more than 2.7 Wh but not more than 20 Wh per cell; or
 - 3) up to 2.5 kg of cells and/or batteries with a Watt-hour rating not more than 2.7 Wh per cell or battery.

In instances where other forms of transport (including cargo aircraft) are impracticable and in the case of urgent medical need, one consignment of lithium batteries may be transported as Class 9 (UN 3480 or UN 3090) on a passenger aircraft with the prior approval of the authority of the State of Origin and with the approval of the operator under the following conditions:

- a) the shipper must provide a copy of the test summary report as specified in Part 2;9.3 g);
- b) the consignment must not contain more than 4 batteries;
- c) for lithium ion batteries:
 - 1) the Watt-hour rating of each battery must not exceed 100 Wh; and
 - 2) the batteries must be prepared in accordance with Packing Instruction 965, Section IA;
- d) for lithium metal batteries:
 - 1) the lithium content of each battery must not exceed 2 g; and
 - 2) the batteries must be prepared in accordance with Packing Instruction 968, Section IA.

When States, other than the State of Origin, the State of the Operator or State of Destination have notified ICAO that they require prior approval of shipments made under this special provision, approval must also be obtained from these States, as appropriate.

The requirements of Part 5 for Class 9 (UN 3090 or UN 3480) lithium metal and lithium ion batteries apply. A copy of the document of approval including the quantity limitations must accompany the consignment. Transport in accordance with this special provision must be noted on the dangerous goods transport document.

If transport in accordance with this special provision is not possible, States concerned may grant an exemption from the prohibition to transport lithium metal or lithium ion batteries on passenger aircraft in accordance with Part 1;1.1.3.

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Authorities issuing exemptions or approvals in accordance with this special provision must provide a copy to the Chief of the Cargo Safety Section within three months via email at CSS@icao.int, via facsimile at +1 514-954-6077 or via post to the following address:

Chief, Cargo Safety Section
International Civil Aviation Organization
999 Robert-Bourassa Boulevard
Montréal, Quebec
CANADA H3C 5H7

Note.— Guidance for the processing of exemptions or approvals from the prohibition to transport lithium batteries may be found in Part S-1;4 and Table S-3-1, Special Provision A334 of the Supplement to the Technical Instructions.

A202 (≈378) Radiation detectors containing this gas in non-refillable cylinders not meeting the requirements of Part 6;5 and Packing Instruction 200 may be offered for transport under this entry provided:

- a) the working pressure in each cylinder does not exceed 50 bar;
- b) the cylinder capacity does not exceed 12 L;
- c) each cylinder has a minimum burst pressure of at least three times the working pressure when a relief device is fitted and at least four times the working pressure when no relief device is fitted;
- d) each cylinder is manufactured from material which will not fragment upon rupture;
- e) each detector is manufactured under a registered quality assurance programme;

Note.— ISO 9001:2008 may be used for this purpose.

- f) detectors are transported in strong outer packagings. The complete package must be capable of withstanding a 1.2 m drop test without breakage of the detector or rupture of the outer packaging. Equipment that includes a detector must be packed in a strong outer packaging unless the detector is afforded equivalent protection by the equipment in which it is contained; and
- g) transport in accordance with this special provision must be noted on the dangerous goods transport document.

Radiation detectors, including detectors in radiation detection systems, are not subject to any other requirements of these Instructions if the detectors meet the requirements in a) to f) above and the capacity of detector cylinders does not exceed 50 mL.

A203 (380) Not used.

A204 (382) Polymeric beads may be made from polystyrene, poly (methyl methacrylate) or other polymeric material. When it can be demonstrated that no flammable vapour, resulting in a flammable atmosphere, is evolved according to test U1 (Test method for substances liable to evolve flammable vapours) of Part III, sub-section 38.4.4 of the UN *Manual of Tests and Criteria*, polymeric beads, expandable need not be classified under this UN number. This test should only be performed when de-classification of a substance is considered.

A205 (383) Table tennis balls manufactured from celluloid are not subject to these Instructions where the net mass of each table tennis ball does not exceed 3.0 g and the total net mass of table tennis balls does not exceed 500 g per package.

A206 Not used.

A207 (≈385) Not used.

A208 (≈363) a) This entry applies to engines or machinery, powered by fuels classified as dangerous goods via internal combustion systems or fuel cells (such as combustion engines, generators, compressors, turbines, heating units).

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b) Engines and machinery containing fuels meeting the classification criteria of Class 3 must be consigned under the entries UN 3528 – **Engine, internal combustion, flammable liquid powered** or UN 3528 – **Engine, fuel cell, flammable liquid powered** or UN 3528 – **Machinery, internal combustion, flammable liquid powered** or UN 3528 – **Machinery, fuel cell, flammable liquid powered**, as appropriate.

c) Engines and machinery containing fuels meeting the classification criteria of Division 2.1 must be consigned under the entries UN 3529 – **Engine, internal combustion, flammable gas powered** or UN 3529 – **Engine, fuel cell, flammable gas powered** or UN 3529 – **Machinery, internal combustion, flammable gas powered** or UN 3529 – **Machinery, fuel cell, flammable gas powered**, as appropriate.

Engines and machinery powered by both a flammable gas and a flammable liquid must be consigned under the appropriate UN 3529 entry.

d) Engines and machinery containing liquid fuels meeting the classification criteria for environmentally hazardous substances and not meeting the classification criteria of any other class or division, must be consigned under the entries UN 3530 – **Engine, internal combustion** or UN 3530 – **Machinery, internal combustion**, as appropriate.

A209 (≈386) When chemical stabilization is employed, the person offering the packaging for transport must ensure that the level of stabilization is sufficient to prevent the substance in the packaging from dangerous polymerization at a bulk mean temperature of 50°C. Where chemical stabilization becomes ineffective at lower temperatures within the anticipated duration of transport, temperature control is required in which case the substances are forbidden for transport by air.

A210 This substance is forbidden for transport by air. It may be transported on cargo aircraft only with the prior approval of the appropriate authority of the State of Origin and the State of the Operator under the written conditions established by those authorities.

A211 Receptacles, small containing gas (toxic, oxidizing and corrosive) or Gas cartridges (toxic, oxidizing and corrosive) which are intended for use in sterilization devices only, when containing:

- a) UN1067 — **Nitrogen dioxide**; or
- b) UN1660 — **Nitric oxide, compressed**

may be transported on passenger and cargo aircraft irrespective of the indication of “forbidden” in columns 10 to 13 of Table 3-1, provided:

- a) the water capacity of receptacles or gas cartridges does not exceed 30 mL;
- b) receptacles or gas cartridges are designed such that the burst pressure is not less than four times the pressure in the cartridge at 55°C;
- c) receptacles or gas cartridges are packed in a compatible, sealed intermediate packaging with sufficient adsorbent material capable of containing the contents of the gas cartridge;
- d) intermediate packagings are securely packed in an outer packaging of a type permitted by Packing Instruction 203 meeting the Packing Group I performance requirements of Part 6; Chapter 1;
- e) the aggregate water capacity of all receptacles or gas cartridges in a package does not exceed 300 mL;
- f) packages bear hazard labels denoting the hazards of “toxic gas”, “oxidizer” and “corrosive”; and
- g) reference to Special Provision A211 is made on the dangerous goods transport document as required by Part 5;4.1.5.8.

If the above conditions are met, the requirements of Special Provision A2 do not apply.

A212 UN 2031 — **Nitric acid**, other than red fuming, with more than 20% and less than 65% nitric acid intended for use in sterilization devices only, may be transported on passenger aircraft irrespective of the indication of “forbidden” in columns 10 and 11 of Table 3-1 provided:

- a) each inner packaging contains not more than 30 mL;

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		<ul style="list-style-type: none"> b) each inner packaging is contained in a sealed leak-proof intermediate packaging with sufficient absorbent material capable of containing contents of the inner packaging; c) intermediate packagings are securely packed in an outer packaging of a type permitted by Packing Instruction 855 meeting the Packing Group I performance requirements of Part 6; Chapter 1; d) the maximum quantity of nitric acid in the package does not exceed 300 mL; and e) reference to Special Provision A212 is made on the dangerous goods transport document as required by Part 5;4.1.5.8.
A213	(387)	Lithium batteries in conformity with 2;9.3 f) containing both primary lithium metal cells and rechargeable lithium ion cells must be assigned to UN Nos. 3090 or 3091 as appropriate. When such batteries are transported in accordance with Section IB of Packing Instruction 968 or in accordance with Section II of Packing Instruction 969 or 970, the total lithium content of all lithium metal cells contained in the battery must not exceed 1.5 g, and the total capacity of all lithium ion cells contained in the battery must not exceed 10 Wh.
≠ A214	(388)	<p>UN No. 3166 entries apply to vehicles powered by flammable liquid or flammable gas internal combustion engines or fuel cells.</p> <p>Vehicles powered by a fuel cell engine must be assigned to UN 3166 Vehicle, fuel cell, flammable gas powered or UN 3166 Vehicle, fuel cell, flammable liquid powered, as appropriate. These entries include hybrid electric vehicles powered by both a fuel cell and an internal combustion engine with wet batteries, sodium batteries, lithium metal batteries or lithium ion batteries, transported with the battery(ies) installed.</p> <p>Other vehicles which contain an internal combustion engine must be assigned to UN 3166 Vehicle, flammable gas powered or UN 3166 Vehicle, flammable liquid powered, as appropriate. These entries include hybrid electric vehicles powered by both an internal combustion engine and wet batteries, sodium batteries, lithium metal batteries or lithium ion batteries, transported with the battery(ies) installed.</p> <p>If a vehicle is powered by a flammable liquid and a flammable gas internal combustion engine, it must be assigned to UN 3166 Vehicle, flammable gas powered.</p> <p>Entry UN 3171 only applies to vehicles and equipment powered by wet batteries, metallic sodium batteries or sodium alloy batteries transported with these batteries installed.</p> <p>UN 3556 Vehicle, lithium ion battery powered, UN 3557 Vehicle, lithium metal battery powered and UN 3558 Vehicle, sodium ion battery powered, as applicable, apply to vehicles powered by lithium ion, lithium metal or sodium ion batteries transported with the batteries installed.</p> <p>For the purpose of this special provision, vehicles are self-propelled apparatus designed to carry one or more persons or goods. Examples of such vehicles are cars, motorcycles, scooters, three- and four-wheeled vehicles or motorcycles, trucks, locomotives, bicycles (pedal cycles with a motor) and other vehicles of this type (such as self-balancing vehicles or vehicles not equipped with at least one seating position), wheelchairs, lawn tractors, self-propelled farming and construction equipment, boats and aircraft. When vehicles are transported in a packaging, some parts of the vehicle, other than the battery, may be detached from their frame to fit into the packaging.</p> <p>Examples of equipment are lawnmowers, cleaning machines or model boats and model aircraft. Equipment powered by lithium metal batteries or lithium ion batteries must be assigned to UN 3091 Lithium metal batteries contained in equipment or UN 3091 Lithium metal batteries packed with equipment or UN 3481 Lithium ion batteries contained in equipment or UN 3481 Lithium ion batteries packed with equipment, as appropriate. Lithium ion batteries or lithium metal batteries installed in a cargo transport unit and designed only to provide power external to the cargo transport unit must be assigned to UN 3536 Lithium batteries installed in cargo transport unit.</p>
A215	(≈274)	<p>For UN 3077 and UN 3082, the technical name may be a name shown in bold characters in column 1 of Table 3-1, provided that this name does not include “n.o.s.” or an “*”. The name which most appropriately describes the substance or mixture must be used, such as:</p> <p>UN 3082, Environmentally hazardous substance, liquid, n.o.s. (Paint) UN 3082, Environmentally hazardous substance, liquid, n.o.s. (Perfumery products)</p>
A216	(393)	The nitrocellulose must meet the criteria of the Bergmann-Junk test or methyl violet paper test in the UN <i>Manual of Tests and Criteria</i> Appendix 10. Tests of type 3 (c) need not be applied.
A217	(394)	The nitrocellulose must meet the criteria of the Bergmann-Junk test or methyl violet paper test in the UN <i>Manual of Tests and Criteria</i> Appendix 10.

<i>TIs</i>	<i>UN</i>	
A218	(395)	This entry must only be used for solid medical waste of Category A transported for disposal.
A219	(308)	Stabilization of fish meal must be achieved to prevent spontaneous combustion by effective application of ethoxyquin, BHT (butylated hydroxytoluene) or tocopherols (also used in a blend with rosemary extract) at the time of production. The said application must occur within twelve months prior to shipment. Fish meal must contain at least 50 ppm (mg/kg) of ethoxyquin, 100 ppm (mg/kg) of BHT or 250 ppm (mg/kg) of tocopherol-based antioxidant at the time of consignment.
A220		Packages containing COVID-19 pharmaceuticals accompanied by data loggers and/or cargo tracking devices containing lithium batteries are not subject to the marking and documentation requirements of Section II of Packing Instruction 967 or 970, as applicable. This same package configuration, when consigned without the COVID-19 pharmaceutical for the purpose of use or reuse, is also not subject to the marking and documentation requirements of Section II of Packing Instruction 967 or 970, as applicable, provided prior arrangements have been made with the operator.
A221	(397)	Mixtures of nitrogen and oxygen containing not less than 19.5 per cent and not more than 23.5 per cent oxygen by volume may be transported under this entry when no other oxidizing gases are present. A Division 5.1 subsidiary hazard label is not required for any concentrations within this limit.
A222	(398)	This entry applies to mixtures of butylenes, 1-butylene, cis-2-butylene and trans-2-butylene. For isobutylene, see UN 1055.
A223	(≈296)	Life-saving appliances packed in strong rigid outer packagings with a total maximum gross mass not exceeding 40 kg, containing no dangerous goods other than Division 2.2 compressed or liquefied gases (with no subsidiary hazard) contained in receptacles with a capacity not exceeding 120 mL and installed solely for the purpose of the activation of the appliance, are not subject to these Instructions when carried as cargo.
A224		<p>UN 3548 – Articles containing miscellaneous dangerous goods, n.o.s. may be transported on passenger and cargo aircraft irrespective of the indication of “forbidden” in columns 10 to 13 of Table 3-1, provided that:</p> <ul style="list-style-type: none"> a) with the exception of lithium cells or batteries that comply with Section II of Packing Instruction 967 or Section II of Packing Instruction 970, as applicable, the only dangerous goods contained in the article is an environmentally hazardous substance; b) the articles are packed in accordance with Packing Instruction 975; and c) reference to Special Provision A224 is made on the dangerous goods transport document as required by Part 5;4.1.5.8. <p>All other provisions of these Instructions apply. If the above conditions are met, the requirements of Special Provision A2 do not apply.</p>
A225		<p>UN 3538 – Articles containing non-flammable, non-toxic gas, n.o.s. may be transported on passenger and cargo aircraft irrespective of the indication of “forbidden” in columns 10 to 13 of Table 3-1, provided that:</p> <ul style="list-style-type: none"> a) with the exception of lithium cells or batteries that comply with Section II of Packing Instruction 967 or Section II of Packing Instruction 970, as applicable, the only dangerous goods contained in the article is a Division 2.2 gas without a subsidiary hazard, but excluding refrigerated liquefied gases and gases forbidden for transport on passenger aircraft; b) the articles are packed in accordance with Packing Instruction 222; and c) reference to Special Provision A225 is made on the dangerous goods transport document as required by Part 5;4.1.5.8. <p>All other provisions of these Instructions apply. If the above conditions are met, the requirements of Special Provision A2 do not apply.</p>
+	A226	(399) For articles that meet the definition for Detonators, electronic as described in Attachment 2 and assigned to UN Nos. 0511, 0512 and 0513, the entries for Detonators, electric (UN Nos. 0030, 0255 and 0456) may continue to be used until 30 June 2025.
+	A228	(401) Sodium ion cells and batteries with organic electrolyte must be transported as UN 3551 or UN 3552 as appropriate. Sodium ion batteries with aqueous alkali electrolyte must be transported as UN 2795 Batteries, wet, filled with alkali , electric storage.
+	A229	(402) Substances transported under this entry must have a vapour pressure at 70°C not exceeding 1.1 MPa (11 bar) and a density at 50°C not lower than 0.525 kg/L.

	<i>TIs</i>	<i>UN</i>	
+	A230	(403)	<p>Nitrocellulose (NC) membrane filters covered by this entry with NC content not exceeding 53 g/m² and an NC net weight not exceeding 300 g per inner packaging, are not subject to the requirements of these Instructions if they meet the following conditions:</p> <ol style="list-style-type: none"> they are packed with paper separators of minimum 80 g/m² placed between each layer of NC membrane filters; they are packed to maintain the alignment of the NC membrane filters and the paper separators in any of the following configurations: <ol style="list-style-type: none"> rolls tightly wound and packed in plastic foil of minimum 80 g/m² or aluminium pouches with an oxygen permeability of equal or less than 0.1 per cent according to standard ISO 15105-1:2007; Sheets packed in cardboard of minimum 250 g per square metre or aluminium pouches with an oxygen permeability of equal or less than 0.1 per cent according to standard ISO 15105-1:2007; or round filters packed in disc holders or cardboard packaging of minimum 250 g per square metre or single packed in pouches of paper and plastic material of total minimum 100 g per square metre.
+	A231	(404)	<p>Vehicles powered by sodium ion batteries, containing no other dangerous goods, are not subject to other provisions of these Instructions, if the battery is short-circuited, in a way that the battery does not contain electrical energy. The short-circuiting of the battery must be easily verifiable (such as busbar between terminals).</p>
+	A232	(407)	<p>Fire suppressant dispersing devices are articles that contain a pyrotechnic substance, are intended to disperse a fire extinguishing agent (or aerosol) when activated, and do not contain any other dangerous goods. These articles, as packaged for transport, must fulfil the criteria for Division 1.4S, when tested in accordance with test series 6(c) of Section 16 of Part 1 of the UN <i>Manual of Tests and Criteria</i>. The device must be transported with either the means of activation removed or equipped with at least two independent means to prevent accidental activation.</p> <p>Fire suppressant dispersing devices must only be assigned to Class 9, UN 3559, if the following additional conditions are met:</p> <ol style="list-style-type: none"> the device meets the exclusion criteria in 2;1.5.2.4 b), c) and d); the suppressant must be deemed safe for normally-occupied spaces in compliance with international or regional standards (such as NFPA2010); and the article must be packaged in a manner such that when activated, temperatures of the outside of the package must not exceed 200°C; <p>This entry must be used only with the approval of the appropriate national authority of the State of manufacture.</p> <p>This entry does not apply to UN 3268 Safety devices, electrically initiated, described in Special Provision A115.</p>
+	A233	(408)	<p>This entry applies only to aqueous solutions comprised of water, tetramethylammonium hydroxide (TMAH), and no more than 1 per cent other constituents. Other formulations containing TMAH must be assigned to an appropriate generic or n.o.s. entry (such as UN 2927, Toxic liquid, corrosive, organic, n.o.s., etc.), except as follows:</p> <ol style="list-style-type: none"> other formulations containing a surfactant in a concentration of more than 1 per cent and with not less than 8.75 per cent TMAH must be assigned to UN 2927, Packing Group I; and other formulations containing a surfactant in a concentration of more than 1 per cent and with more than 2.38 per cent but less than 8.75 per cent TMAH must be assigned to UN 2927, Packing Group II.
+	A234	(409)	<p>The provisions specified in Table 3-1 in the 2023–2024 edition of these Instructions may continue to be applied until 31 December 2026.</p>