



**WORKING PAPER**

**DANGEROUS GOODS PANEL (DGP)**

**TWENTY-SEVENTH MEETING**

**Montréal, 16 to 20 September 2019**

**Agenda Item 1: Harmonizing ICAO dangerous goods provisions with UN Recommendations on the Transport of Dangerous Goods**

**1.2: Develop proposals, if necessary, for amendments to the *Technical Instructions for the Safe Transport of Dangerous Goods by Air* (Doc 9284) for incorporation in the 2021-2022 Edition**

**DRAFT AMENDMENTS TO THE TECHNICAL INSTRUCTIONS TO ALIGN WITH THE UN RECOMMENDATIONS — PART 3**

(Presented by the Secretary)

**SUMMARY**

This working paper contains draft amendments to Part 3 of the Technical Instructions to reflect the decisions taken by the UN Committee of Experts on the Transport of Dangerous Goods and on the Globally Harmonized System of Classification and Labelling of Chemicals at its ninth session (Geneva, 7 December 2018).

The DGP is invited to agree to the draft amendments in this working paper.

## Part 3

## DANGEROUS GOODS LIST, SPECIAL PROVISIONS AND LIMITED AND EXCEPTED QUANTITIES

## Chapter 2

### ARRANGEMENT OF THE DANGEROUS GOODS LIST (TABLE 3-1)

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Table 3-1. Dangerous Goods List

Name	UN No.	Class or division	Subsidiary hazard	Labels	State variations	Special provisions	UN packing group	Excepted quantity	Passenger and cargo aircraft		Cargo aircraft only	
									Packing instruction	Max. net quantity per package	Packing instruction	Max. net quantity per package
1	2	3	4	5	6	7	8	9	10	11	12	13
UN Model Regulations, Chapter 3.2, dangerous goods list (see ST/SG/AC.10/46/Add.1):												
<u>Detonators, electronic programmable for blasting†</u>	<u>0511</u>	<u>1.1B</u>		<u>Explosive</u>				<u>E0</u>	<u>FORBI</u>	<u>DDEN</u>	<u>FORBI</u>	<u>DDEN</u>
<u>Detonators, electronic programmable for blasting†</u>	<u>0512</u>	<u>1.4B</u>		<u>Explosive 1.4</u>				<u>E0</u>	<u>FORBI</u>	<u>DDEN</u>	<u>131</u>	<u>75 kg</u>
UN Model Regulations, Chapter 3.2, dangerous goods list, SP347 (see ST/SG/AC.10/46/Add.1):												
<u>Detonators, electronic programmable for blasting†</u>	<u>0513</u>	<u>1.4S</u>		<u>Explosive 1.4</u>		<u>A165</u>		<u>E0</u>	<u>131</u>	<u>25 kg</u>	<u>131</u>	<u>100 kg</u>
UN Model Regulations, Chapter 3.2, dangerous goods list, SP393 (see ST/SG/AC.10/46/Add.1):												
<u>Nitrocellulose, dry or wetted with less than 25% water (or alcohol), by mass</u>	<u>0340</u>	<u>1.1D</u>				<u>A216</u>			<u>FORBI</u>	<u>DDEN</u>	<u>FORBI</u>	<u>DDEN</u>

Name	UN No.	Class or division	Subsidiary hazard	Labels	State variations	Special provisions	UN packing group	Excepted quantity	Passenger and cargo aircraft		Cargo aircraft only	
									Packing instruction	Max. net quantity per package	Packing instruction	Max. net quantity per package
1	2	3	4	5	6	7	8	9	10	11	12	13

UN Model Regulations, Chapter 3.2, dangerous goods list, SP393 (see ST/SG/AC.10/46/Add.1):

<b>Nitrocellulose</b> , unmodified or plasticized with less than 18% plasticizing substance, by mass	0341	1.1D				<a href="#">A216</a>			FORBI	DDEN	FORBI	DDEN
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UN Model Regulations, Chapter 3.2, dangerous goods list, SP393 (see ST/SG/AC.10/46/Add.1):

<b>Nitrocellulose, plasticized</b> with not less than 18% plasticizing substance, by mass	0343	1.3C				<a href="#">A216</a>			FORBI	DDEN	FORBI	DDEN
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UN Model Regulations, Chapter 3.2, dangerous goods list, SP393 (see ST/SG/AC.10/46/Add.1):

<b>Nitrocellulose, wetted</b> with not less than 25% alcohol, by mass	0342	1.3C				<a href="#">A216</a>			FORBI	DDEN	FORBI	DDEN
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UN Model Regulations, Chapter 3.2, dangerous goods list, UN 2037 (see ST/SG/AC.10/46/Add.1) and paragraph 3.1.2.5.1 d) of the DGP-WG/19 report.

<b>Gas cartridges</b> , (flammable) without a release device, non-refillable	2037	2.1		Gas flammable		<a href="#">A145</a> <a href="#">A167</a>		<a href="#">E0</a>	<a href="#">203</a> <a href="#">Y203</a>	<a href="#">1 kg</a> <a href="#">1 kg</a>	<a href="#">203</a>	<a href="#">15 kg</a>
<b>Gas cartridges</b> , (non-flammable) without a release device, non-refillable	2037	2.2		Gas non-flammable		<a href="#">A98</a> <a href="#">A145</a> <a href="#">A167</a>		<a href="#">E0</a>	<a href="#">203</a> <a href="#">Y203</a>	<a href="#">1 kg</a> <a href="#">1 kg</a>	<a href="#">203</a>	<a href="#">15 kg</a>
<b>Gas cartridges</b> (oxidizing) without a release device, non-refillable	2037	2.2	5.1	Gas non-flammable & Oxidizer		<a href="#">A145</a> <a href="#">A167</a>		<a href="#">E0</a>	<a href="#">203</a>	<a href="#">1 kg</a>	<a href="#">203</a>	<a href="#">15 kg</a>
<b>Gas cartridges</b> (toxic & corrosive) without a release device, non-refillable	2037	2.3	8		AU 1 CA 7 IR 3 NL 1 US 3	A2			FORBI	DDEN	FORBI	DDEN
<b>Gas cartridges</b> (toxic, flammable & corrosive) without a release device, non-refillable	2037	2.3	2.1 8		AU 1 CA 7 IR 3 NL 1 US 3	A2			FORBI	DDEN	FORBI	DDEN

Name	UN No.	Class or division	Subsidiary hazard	Labels	State variations	Special provisions	UN packing group	Excepted quantity	Passenger and cargo aircraft		Cargo aircraft only	
									Packing instruction	Max. net quantity per package	Packing instruction	Max. net quantity per package
1	2	3	4	5	6	7	8	9	10	11	12	13
<b>Gas cartridges</b> (toxic & flammable) without a release device, non-refillable	2037	2.3	2.1		AU 1 CA 7 IR 3 NL 1 US 3	A2			FORBI	DDEN	FORBI	DDEN
<b>Gas cartridges</b> (toxic, oxidizing & corrosive) without a release device, non-refillable	2037	2.3	5.1 8		AU 1 CA 7 IR 3 NL 1 US 3	A2 A211			FORBI	DDEN	FORBI	DDEN
<b>Gas cartridges</b> (toxic & oxidizing) without a release device, non-refillable	2037	2.3	5.1		AU 1 CA 7 IR 3 NL 1 US 3	A2			FORBI	DDEN	FORBI	DDEN
<b>Gas cartridges</b> (toxic) without a release device, non-refillable	2037	2.3			AU 1 CA 7 IR 3 NL 1 US 3	A2			FORBI	DDEN	FORBI	DDEN
<b>Receptacles, small, containing gas</b> (flammable) without a release device, non-refillable	2037	2.1		Gas flammable		<u>A145</u> A167		<u>E0</u>	<u>203</u> <u>Y203</u>	<u>1 kg</u> <u>1 kg</u>	<u>203</u>	<u>15 kg</u>
<b>Receptacles, small, containing gas</b> (non-flammable) without a release device, non-refillable	2037	2.2		Gas non-flammable		A98 <u>A145</u> A167		<u>E0</u>	<u>203</u> <u>Y203</u>	<u>1 kg</u> <u>1 kg</u>	<u>203</u>	<u>15 kg</u>
<b>Receptacles, small, containing gas</b> (oxidizing) without a release device, non-refillable	2037	2.2	5.1	Gas non-flammable & Oxidizer		<u>A145</u> A167		<u>E0</u>	<u>203</u>	<u>1 kg</u>	<u>203</u>	<u>15 kg</u>
<b>Receptacles, small, containing gas</b> (toxic & corrosive) without a release device, non-refillable	2037	2.3	8		AU 1 CA 7 IR 3 NL 1 US 3	A2			FORBI	DDEN	FORBI	DDEN
<b>Receptacles, small, containing gas</b> (toxic, flammable & corrosive) without a release device, non-refillable	2037	2.3	2.1 8		AU 1 CA 7 IR 3 NL 1 US 3	A2			FORBI	DDEN	FORBI	DDEN
<b>Receptacles, small, containing gas</b> (toxic & flammable) without a release device, non-refillable	2037	2.3	2.1		AU 1 CA 7 IR 3 NL 1 US 3	A2			FORBI	DDEN	FORBI	DDEN

Name	UN No.	Class or division	Subsidiary hazard	Labels	State variations	Special provisions	UN packing group	Excepted quantity	Passenger and cargo aircraft		Cargo aircraft only	
									Packing instruction	Max. net quantity per package	Packing instruction	Max. net quantity per package
1	2	3	4	5	6	7	8	9	10	11	12	13
<b>Receptacles, small, containing gas</b> (toxic, oxidizing & corrosive) without a release device, non-refillable	2037	2.3	5.1 8		AU 1 CA 7 IR 3 NL 1 US 3	A2 A211			FORBI	DDEN	FORBI	DDEN
<b>Receptacles, small, containing gas</b> (toxic & oxidizing) without a release device, non-refillable	2037	2.3	5.1		AU 1 CA 7 IR 3 NL 1 US 3	A2			FORBI	DDEN	FORBI	DDEN
<b>Receptacles, small, containing gas</b> (toxic) without a release device, non-refillable	2037	2.3			AU 1 CA 7 IR 3 NL 1 US 3	A2			FORBI	DDEN	FORBI	DDEN

DGP-WG/19-WP/20 (Revised) (see paragraph 3.1.2.10 of the DGP-WG/19 report):

<b>Fish meal, stabilized</b>	2216	9		Miscellaneous	AU 1 IR 3 NL 3 US 3	A2 A219	III	E1	FORBI 956	DDEN 100 kg	FORBID 956	DEN 200 kg
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UN Model Regulations, Chapter 3.2, dangerous goods list, SP386 (see ST/SG/AC.10/46/Add.1):

<b>Dipropylamine</b>	2383	3	8	Liquid flammable & Corrosive		A209	II	E2	352 Y340	1 L 0.5 L	363	5 L
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UN Model Regulations, Chapter 3.2, dangerous goods list, SP386 (see ST/SG/AC.10/46/Add.1):

<b>2-Dimethylaminoethyl methacrylate, stabilized</b>	2522	6.1		Toxic		A209	II	E4	654 Y641	5 L 1 L	662	60 L
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UN Model Regulations, Chapter 3.2, dangerous goods list, SP394 (see ST/SG/AC.10/46/Add.1):

<b>Nitrocellulose with water</b> , not less than 25% water by mass	2555	4.1		Solid flammable	BE 3	A57 A217	II	E0	452	15 kg	453	50 kg
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Name	UN No.	Class or division	Subsidiary hazard	Labels	State variations	Special provisions	UN packing group	Excepted quantity	Passenger and cargo aircraft		Cargo aircraft only	
									Packing instruction	Max. net quantity per package	Packing instruction	Max. net quantity per package
1	2	3	4	5	6	7	8	9	10	11	12	13

UN Model Regulations, Chapter 3.2, dangerous goods list, SP394 (see ST/SG/AC.10/46/Add.1):

<b>Nitrocellulose with alcohol</b> , not less than 25% alcohol, by mass, and not more than 12.6% nitrogen, by dry mass	2556	4.1		Solid flammable	BE 3	A57 <u>A217</u>	II	E0	452	1 kg	453	15 kg
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UN Model Regulations, Chapter 3.2, dangerous goods list, SP394 (see ST/SG/AC.10/46/Add.1):

<b>Nitrocellulose</b> , with not more than 12.6% nitrogen, by dry mass, <b>mixture without plasticizer, without pigment</b>	2557	4.1		Solid flammable	BE 3	A57 A86 <u>A217</u>	II	E0	452	1 kg	453	15 kg
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UN Model Regulations, Chapter 3.2, dangerous goods list, SP394 (see ST/SG/AC.10/46/Add.1):

<b>Nitrocellulose</b> , with not more than 12.6% nitrogen, by dry mass, <b>mixture without plasticizer, with pigment</b>	2557	4.1		Solid flammable	BE 3	A57 A86 <u>A217</u>	II	E0	452	1 kg	453	15 kg
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UN Model Regulations, Chapter 3.2, dangerous goods list, SP394 (see ST/SG/AC.10/46/Add.1):

<b>Nitrocellulose</b> , with not more than 12.6% nitrogen, by dry mass, <b>mixture with plasticizer, without pigment</b>	2557	4.1		Solid flammable	BE 3	A57 A86 <u>A217</u>	II	E0	452	1 kg	453	15 kg
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UN Model Regulations, Chapter 3.2, dangerous goods list, SP394 (see ST/SG/AC.10/46/Add.1):

<b>Nitrocellulose</b> , with not more than 12.6% nitrogen, by dry mass, <b>mixture with plasticizer, with pigment</b>	2557	4.1		Solid flammable	BE 3	A57 A86 <u>A217</u>	II	E0	452	1 kg	453	15 kg
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Name	UN No.	Class or division	Subsidiary hazard	Labels	State variations	Special provisions	UN packing group	Excepted quantity	Passenger and cargo aircraft		Cargo aircraft only	
									Packing instruction	Max. net quantity per package	Packing instruction	Max. net quantity per package
1	2	3	4	5	6	7	8	9	10	11	12	13

UN Model Regulations, Chapter 3.2, dangerous goods list, SP274 (see ST/SG/AC.10/46/Add.1):

Environmentally hazardous substance, solid, n.o.s.*	3077	9		Miscellaneous	DE 5 US 4	A97 A158 A179 A197 <u>A215</u>	III	E1	956 Y956	400 kg 30 kg G	956	400 kg
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UN Model Regulations, Chapter 3.2, dangerous goods list, SP274 (see ST/SG/AC.10/46/Add.1):

Environmentally hazardous substance, liquid, n.o.s.*	3082	9		Miscellaneous	DE 5 US 4	A97 A158 A197 <u>A215</u>	III	E1	964 Y964	450 L 30 kg G	964	450 L
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UN Model Regulations, Chapter 3.2, dangerous goods list (see ST/SG/AC.10/46/Add.1):

Biomedical waste, n.o.s.	3291	6.2		Infectious		A117	II	E0	<del>622</del> <u>621</u>	No limit	<del>622</del> <u>621</u>	No limit
Clinical waste, unspecified, n.o.s.	3291	6.2		Infectious		A117	II	E0	<del>622</del> <u>621</u>	No limit	<del>622</del> <u>621</u>	No limit

UN Model Regulations, Chapter 3.2, dangerous goods list (see ST/SG/AC.10/46/Add.1):

Medical waste, n.o.s.	3291	6.2		Infectious		A117	II	E0	<del>622</del> <u>621</u>	No limit	<del>622</del> <u>621</u>	No limit
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UN Model Regulations, Chapter 3.2, dangerous goods list (see ST/SG/AC.10/46/Add.1):

Regulated medical waste, n.o.s.	3291	6.2		Infectious		A117	II	E0	<del>622</del> <u>621</u>	No limit	<del>622</del> <u>621</u>	No limit
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UN Model Regulations, Chapter 3.2, dangerous goods list (see ST/SG/AC.10/46/Add.1):

<u>Dangerous goods in articles</u>	<u>3363</u>	<u>9</u>		Miscellaneous		<u>A48</u> <u>A107</u>		<u>E0</u>	<u>see 962</u>		<u>see 962</u>	
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Name	UN No.	Class or division	Subsidiary hazard	Labels	State variations	Special provisions	UN packing group	Excepted quantity	Passenger and cargo aircraft		Cargo aircraft only	
									Packing instruction	Max. net quantity per package	Packing instruction	Max. net quantity per package
1	2	3	4	5	6	7	8	9	10	11	12	13

UN Model Regulations, Chapter 3.2, dangerous goods list, SP394 (see ST/SG/AC.10/46/Add.1):

<b>Desensitized explosive, solid, n.o.s.*</b>	3380	4.1			BE 3	A133 <u>A217</u>	I		FORBI	DDEN	FORBI	DDEN
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UN Model Regulations, Chapter 3.2, dangerous goods list, SP356 (see ST/SG/AC.10/46/Add.1) and paragraph 3.1.2.5.1 c) of the DGP-WG/19 report:

<b>Engine, internal combustion, flammable gas powered</b>	3529	2.1		Gas flammable		A70 A87 A208		E0	FORBI	DDEN	220	No limit
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UN Model Regulations, Chapter 3.2, dangerous goods list, SP356 (see ST/SG/AC.10/46/Add.1) and paragraph 3.1.2.5.1 c) of the DGP-WG/19 report:

<b>Machinery, internal combustion, flammable gas powered</b>	3529	2.1		Gas flammable		A70 A87 A208		E0	FORBI	DDEN	220	No limit
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UN Model Regulations, Chapter 3.2, dangerous goods list, SP395 (see ST/SG/AC.10/46/Add.1) and paragraph 3.1.2.5.1 a) of the DGP-WG/19 report:

<b><u>Medical waste, Category A, affecting humans, solid</u></b>	<u>3549</u>	<u>6.2</u>		<u>Infectious</u>		<u>A2</u> <u>A218</u>		<u>E0</u>	<u>FORBI</u>	<u>DDEN</u>	<u>FORBI</u>	<u>DDEN</u>
<b><u>Medical waste, Category A, affecting animals only, solid</u></b>	<u>3549</u>	<u>6.2</u>		<u>Infectious</u>		<u>A2</u> <u>A218</u>		<u>E0</u>	<u>FORBI</u>	<u>DDEN</u>	<u>FORBI</u>	<u>DDEN</u>

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### Chapter 3

## SPECIAL PROVISIONS

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Table 3-2. Special provisions

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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.

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#### UN Model Regulations, Chapter 3.3, SP 172 (d) (see ST/SG/AC.10/46/Add.1)

- d) The dangerous goods transport document must indicate the ~~subsidiary~~ 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.

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#### UN Model Regulations, Chapter 3.3, SP 301 (see ST/SG/AC.10/46/Add.1)

A107 (≈301) This entry only applies to articles such as machinery, ~~or apparatus~~ or devices containing dangerous goods as a residue or as an integral element of the ~~machinery or apparatus~~ articles. It must not be used for ~~machinery or apparatus~~ articles for which a proper shipping name already exists in Table 3-1.

Where the quantity of dangerous goods contained as an integral element in ~~machinery or apparatus~~ articles 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 ~~machinery or apparatus~~ 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.

Note.— This special provision is assigned to UN 3363 — Dangerous goods in articles. Dangerous goods in machinery and Dangerous goods in apparatus. The same requirements of these Instructions apply to each of these articles.

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UN Model Regulations, Chapter 3.3, SP 327 (see ST/SG/AC.10/46/Add.1) and paragraph 3.1.2.5.1 d) of the DGP-WG/19 report.

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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.

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UN Model Regulations, Chapter 3.3, SP 376 (see ST/SG/AC.10/46/Add.1), DGP-WG/18 (see paragraph 3.3.6.3 of the DGP-WG/18 report) and DGP-WG/19 (see paragraph 3.1.2.5 e) of the DGP-WG/19 report)

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≠ A154 376 ~~Lithium batteries, identified by the manufacturer as being defective for safety reasons, or that have been damaged, that have the potential of producing a dangerous evolution of heat, fire or short circuit are forbidden for transport (e.g. those being returned to the manufacturer for safety reasons or cells or batteries that cannot be diagnosed as damaged or defective prior to transport).~~

Lithium ion cells or batteries and lithium metal cells or batteries identified as being damaged or defective such that they do not conform to the type tested according to the applicable provisions of the *Manual of Tests and Criteria* are forbidden for transport. For the purposes of this special provision, these may include, but are not limited to:

- a) cells or batteries identified as being defective for safety reasons;
- b) cells or batteries that have leaked or vented;
- c) cells or batteries that cannot be diagnosed prior to transport; or
- d) cells or batteries that have sustained physical or mechanical damage.

In assessing a cell or battery as damaged or defective, 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.]

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UN Model Regulations, Chapter 3.3, SP 356 (d) (see ST/SG/AC.10/46/Add.1)

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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. 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.

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UN Model Regulations, Chapter 3.3, SP 360 (see ST/SG/AC.10/46/Add.1)

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A185 (360) Vehicles only powered by lithium metal batteries or lithium ion batteries must be ~~consigned under~~ assigned to the entry UN 3171 **Battery-powered vehicle**.

Lithium batteries installed in cargo transport units, designed only to provide power external to the transport unit must be assigned to entry UN 3536 Lithium batteries installed in cargo transport unit.

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DGP-WG/19 (see paragraph 3.1.2.5.1 i) of the DGP-WG/19 report):

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A206 (384) The hazard label must conform to the model shown in Figure 5-26. ~~Figure 5-25 may continue to be used until 31 December 2018.~~

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DGP-WG/19-WP/22 (see paragraph 3.1.2.12 of the DGP-WG/19 report):

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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 or II~~ 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) UN No. 3166 entries apply to vehicles powered by flammable liquid or flammable gas internal combustion engines or fuel cells.

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.

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.

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**.

Entry UN 3171 only applies to vehicles powered by wet batteries, sodium batteries, lithium metal batteries or lithium ion batteries and equipment powered by wet batteries or sodium batteries transported with these batteries installed.

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 (e.g. 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. This includes vehicles transported in a packaging. In this case some parts of the vehicle may be detached from its frame to fit into the packaging.

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UN Model Regulations, Chapter 3.3, SP 388 (see ST/SG/AC.10/46/Add.1) and paragraph 3.1.2.5.1 g) of the DGP-WG/19 report:

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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 the entry UN 3536 **Lithium batteries installed in cargo transport unit.**

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UN Model Regulations, Chapter 3.3, SP 274 (see ST/SG/AC.10/46/Add.1)

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- + A215 (≈274) 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, e.g.:

UN 3082. **Environmentally hazardous substance, liquid, n.o.s. (Paint)**  
UN 3082. **Environmentally hazardous substance, liquid, n.o.s. (Perfumery products)**

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UN Model Regulations, Chapter 3.3, SP 393 (see ST/SG/AC.10/46/Add.1)

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- + A216 (393) The nitrocellulose must meet the criteria of the Bergmann-Junk test or methyl violet paper test in the *Manual of Tests and Criteria* Appendix 10. Tests of type 3 (c) need not be applied.
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UN Model Regulations, Chapter 3.3, SP 394 (see ST/SG/AC.10/46/Add.1)

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- + A217 (394) The nitrocellulose must meet the criteria of the Bergmann-Junk test or methyl violet paper test in the *Manual of Tests and Criteria* Appendix 10.
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UN Model Regulations, Chapter 3.3, SP 395 (see ST/SG/AC.10/46/Add.1)

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- + A218 (395) This entry must only be used for solid medical waste of Category A transported for disposal.
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DGP-WG/19-WP/20 (Revised) (see paragraph 3.1.2.10 of the DGP-WG/19 report):

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- + 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.

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