

# Preliminary consultation on International Harmonization Updates to the Transportation of Dangerous Goods Regulations

Transport Canada (TC) is currently conducting a consultation on proposed amendments to the *Transportation of Dangerous Goods Regulations* (TDG Regulations). The TDG Regulations are updated on a regular basis to harmonize, to the greatest extent possible, with the *United Nations Model Regulations on the Transport of Dangerous Goods* (UN Recommendations), the *International Civil Aviation Organization Technical Instructions* (ICAO TI's), the *International Maritime Dangerous Goods Code* (IMDG) and to harmonize requirements with the United States (US) under the Regulatory Cooperation Council (RCC) work plan. Such harmonization ensures consistency between different modes of transport, facilitates international trade of dangerous goods and reduces regulatory burden on Canadian consignors and carriers who deal with dangerous goods in Canada. The proposed amendments have the following objectives:

First, to harmonize with international regulatory requirements by updating the TDG Regulations to incorporate changes introduced in the 19th edition of the UN Recommendations, the IMDG Code 2014 and the 2015-2016 ICAO TIs with respect to safety marks, classification information, shipping names, special provisions, and marine pollutants.

Secondly, to introduce dynamic references (also known as “ambulatory referencing”) for the international codes mentioned above and technical standards currently incorporated in the TDG Regulations. This would allow Canadian stakeholders to use the most recent versions of the UN Recommendations, IMDG Code, ICAO TIs and the Supplement to the ICAO TIs, the UN Manual of Tests and Criteria (MOTC), and certain parts of Chapter 49 of the *United States Code of Federal Regulation dealing with hazardous materials regulation* (49 CFR) along with many of the technical standards for the manufacture, selection and use of means of containment involved in the transport of dangerous goods as soon as they are adopted and published by their responsible organizations. Dynamic references would increase efficiency and eliminate the administrative burden and delays associated with amending the TDG Regulations every time there is a new version of an international and domestic standard.

Finally, to reduce regulatory barriers on cross-border trade with the United States, TC is proposing reciprocity of regulatory requirements for pressure receptacles and special permits and equivalency certificates.

We invite comments on the proposed amendments as contained in the document below. Please send your comments in writing, on or before February 28, 2016 to:

Regulatory Affairs Branch  
Transportation of Dangerous Goods  
Transport Canada  
Place de Ville, Tower, 330 Sparks Street, 9th Floor  
Ottawa, Ontario, Canada, K1A 0N5  
E-mail: [TDGRegulatoryProposal-TMDPropositionReglementaire@tc.gc.ca](mailto:TDGRegulatoryProposal-TMDPropositionReglementaire@tc.gc.ca)

# Part 1 - Coming into force, Repeal, Interpretation, General Provisions and Special Cases

## Definitions

This amendment proposes to add new definitions for the terms adsorbed gas, neutron radiation detector and radiation detection system to align with definitions in the UN Recommendations, the IMDG Code and the ICAO TIs. It is also proposed to modify the aerosol container definition as well as the Type 1A and Type 1B means of containment.

Current Text TDG Regulations	Proposed Text
<p><b>aerosol container</b> means any non-refillable <b>means of containment</b> that</p> <p>(a) contains a <b>substance</b> under pressure; and</p> <p>(b) is fitted with a self-closing device allowing the contents to be ejected</p> <p>(i) as <b>solid</b> or <b>liquid</b> particles in suspension in a <b>gas</b>,</p> <p>(ii) as a foam, paste or powder, or</p> <p>(iii) as a <b>liquid</b> or a <b>gas</b>. (<b>bombe aérosol</b>)</p>	<p><b>aerosol container</b> means <b>an article consisting of</b> any non-refillable <b>means of containment</b> that</p> <p>(a) contains a <b>substance</b> under pressure; and</p> <p>(b) is fitted with a self-closing device allowing the contents to be ejected</p> <p>(i) as <b>solid</b> or <b>liquid</b> particles in suspension in a <b>gas</b>,</p> <p>(ii) as a foam, paste or powder, or</p> <p>(iii) as a <b>liquid</b> or a <b>gas</b>. (<b>bombe aérosol</b>)</p>
	<p><b>adsorbed gas</b> A gas which when packaged for transport is adsorbed onto a solid porous material resulting in an internal receptacle pressure of less than 101.3 kPa at 20°C and less than 300 kPa at 50°C. <b>(gaz adsorbé)</b></p>
	<p><b>neutron radiation detector :</b> Device that detects neutron radiation. In such a device, a gas may be contained in a hermetically sealed electron tube transducer that converts neutron radiation into a measureable electric signal. <b>(détecteur de rayonnement neutronique )</b></p>
	<p><b>radiation detection system</b> Radiation Detection System- an apparatus that contains radiation detectors as components <b>(système de détection des rayonnements)</b></p>
<p><b>Repeal this definition</b> <b>Type 1A means of containment</b> means a <b>means of containment</b> that is in compliance with the requirements of CGSB-43.125 for <b>Type 1A means of containment</b> or, if it is manufactured outside Canada, is in compliance with the requirements of Chapter 6.3 of the <b>UN Recommendations</b> and the national regulations of the country of manufacture. (<b>contenant de type 1A</b>)</p>	<p><b>Introduce this new definition to replace Type 1A</b> <b>Type P620 means of containment</b> means a <b>means of containment</b> that is in compliance with the requirements of CGSB-43.125 for <b>Type P620 packaging</b> or, if it is manufactured outside Canada, is in compliance with the requirements of Chapter 6.3 of the <b>UN Recommendations</b> and the national regulations of the country of manufacture. (<b>contenant de type P620</b>)</p>
<p><b>Repeal this definition</b> <b>Type 1B means of containment</b> means a <b>means of containment</b> that is in compliance with the requirements of CGSB-43.125 for <b>Type 1B means of containment</b> and with the additional requirements of section 5.16.1 of Part 5, Means of Containment. (<b>contenant de type 1B</b>)</p>	<p><b>Introduce this new definition to replace Type 1B</b> <b>Type P650 means of containment</b> means a <b>means of containment</b> that is in compliance with the requirements of CGSB-43.125 for <b>Type P650 packaging</b> or, if it is manufactured outside Canada, is in compliance with the requirements of Packing Instruction P650 of the <b>UN Recommendations</b> and the national regulations of the country of manufacture. (<b>contenant de Type P650</b>)</p>

<p><b>Repeal this definition</b></p> <p><b>Type 1C means of containment</b></p> <p>means a <del>means of containment</del> that is in compliance with the requirements of CGSB-43.125 for <del>Type 1C means of containment.</del> <del>(contenant de type 1C)</del></p>	
--	--

## Dynamic References

This amendment proposes to incorporate dynamic references (or ambulatory references) when referring to the latest editions of the international transport regulations and standards in the TDG Regulations including ICAO TIs and the Supplement to the ICAO TIs, IMDG Code, certain parts of 49 CFR, the UN MOTC and technical standards for several means of containment. Dynamic references would allow stakeholders to use the latest editions of technical standards once they are approved and published, thereby allowing industry to comply with the latest technical and safety standards of the day. This would also increase efficiency and eliminate the administrative burden and delays associated with amending the TDG Regulations every time there is a new version of an international and domestic standard.

Current Text TDG Regulations	Proposed Text
"Recommendations on the Transport of Dangerous Goods", published by the United Nations (UN)	"Recommendations on the Transport of Dangerous Goods", <del>Seventeenth Revised Edition, 2011</del> , published by the United Nations (UN), <del>as amended from time to time</del>
"Recommendations on the Transport of Dangerous Goods: Manual of Tests and Criteria", published by the United Nations (UN)	"Recommendations on the Transport of Dangerous Goods: Manual of Tests and Criteria", <del>Fifth Revised Edition, 2009</del> , published by the United Nations (UN), <del>as amended from time to time</del>
"Technical Instructions for the Safe Transport of Dangerous Goods by Air", published by the International Civil Aviation Organization (ICAO)	"Technical Instructions for the Safe Transport of Dangerous Goods by Air", <del>2011-2012 Edition</del> , published by the International Civil Aviation Organization (ICAO), <del>as amended from time to time</del>
Supplement to the "Technical Instructions for the Safe Transport of Dangerous Goods by Air", published by the International Civil Aviation Organization (ICAO)	Supplement to the "Technical Instructions for the Safe Transport of Dangerous Goods by Air", <del>2011-2012 Edition</del> , published by the International Civil Aviation Organization (ICAO), <del>as amended from time to time</del>
Volumes 1 and 2 of the "International Maritime Dangerous Goods Code", published by the International Maritime Organization (IMO)	Volumes 1 and 2 of the "International Maritime Dangerous Goods Code", <del>2010 Edition, including Amendment 35-10</del> , published by the International Maritime Organization (IMO), <del>as amended from time to time</del>
Parts 171 to 180 of Title 49 of the "Code of Federal Regulations" of the United States, but does not include Subpart B of Part 107 when that subpart is referenced in Parts 171 to 180	Parts 171 to 180 of Title 49 of the "Code of Federal Regulations" of the United States, <del>2010</del> , but does not include Subpart B of Part 107 when that subpart is referenced in Parts 171 to 180, <del>as amended from time to time</del>
Canadian General Standards Board, CGSB-43.123-2010, "Aerosol Containers and Gas Cartridges for Transport of Dangerous Goods", June 2010, published by the Canadian General Standards Board (CGSB)	Canadian General Standards Board, CGSB-43.123- <del>2010</del> , "Aerosol Containers and Gas Cartridges for Transport of Dangerous Goods", <del>June 2010</del> , published by the Canadian General Standards Board (CGSB), <del>as amended from time to time</del>
National Standard of Canada CAN/CGSB-43.125-99, "Packaging of Infectious Substances, Diagnostic Specimens, Biological Products and Biomedical Waste for Transport", May 1999, published by the Canadian General Standards Board (CGSB)	National Standard of Canada CAN/CGSB-43.125- <del>99</del> , "Packaging of Infectious Substances, Diagnostic Specimens, Biological Products and Biomedical Waste for Transport", <del>May 1999</del> , published by the Canadian General Standards Board (CGSB), <del>as amended from time to time</del>
Canadian General Standards Board CGSB-43.126-2008, "Reconditioning, Remanufacturing and Repair of Drums Used for the Transportation of Dangerous Goods", September 2008, published by the Canadian General Standards Board (CGSB)	Canadian General Standards Board CGSB-43.126- <del>2008</del> , "Reconditioning, Remanufacturing and Repair of Drums Used for the Transportation of Dangerous Goods", <del>September 2008</del> , published by the Canadian General Standards Board (CGSB), <del>as amended from time to time</del>

Current Text TDG Regulations	Proposed Text
National Standard of Canada CAN/CGSB-43.146-2002, "Design, Manufacture and Use of Intermediate Bulk Containers for the Transportation of Dangerous Goods", January 2002, published by the Canadian General Standards Board (CGSB)	National Standard of Canada CAN/CGSB-43.146- <del>2002</del> , "Design, Manufacture and Use of Intermediate Bulk Containers for the Transportation of Dangerous Goods", <del>January 2002</del> , published by the Canadian General Standards Board (CGSB), <b>as amended from time to time</b>
National Standard of Canada CAN/CGSB-43.151-2012, "Packing, handling, offering for transport and transport of Explosives (Class 1)", October 2012, published by the Canadian General Standards Board (CGSB)	National Standard of Canada CAN/CGSB-43.151- <del>2012</del> , "Packing, handling, offering for transport and transport of Explosives (Class 1)", <del>October 2012</del> , published by the Canadian General Standards Board (CGSB), <b>as amended from time to time</b>
CSA Standard B339-08, "Cylinders, spheres, and tubes for the transportation of dangerous goods", March 2008, published by the Canadian Standards Association (CSA)	CSA Standard B339- <del>08</del> , "Cylinders, spheres, and tubes for the transportation of dangerous goods", March 2008, published by the Canadian Standards Association (CSA), <b>as amended from time to time</b>
CSA Standard B340-08, "Selection and use of cylinders, spheres, tubes, and other containers for the transportation of dangerous goods, Class 2", March 2008, published by the Canadian Standards Association (CSA)	CSA Standard B340- <del>08</del> , "Selection and use of cylinders, spheres, tubes, and other containers for the transportation of dangerous goods, Class 2", <del>March 2008</del> , published by the Canadian Standards Association (CSA), <b>as amended from time to time</b>
CSA Standard B341-09, "UN pressure receptacles and multiple-element gas containers for the transport of dangerous goods", March 2009, published by the Canadian Standards Association (CSA)	CSA Standard B341- <del>09</del> , "UN pressure receptacles and multiple-element gas containers for the transport of dangerous goods", <del>March 2009</del> , published by the Canadian Standards Association (CSA), <b>as amended from time to time</b>
CSA Standard B342-09, "Selection and use of UN pressure receptacles and multiple-element gas containers for the transport of dangerous goods, Class 2", March 2009, published by the Canadian Standards Association (CSA)	CSA Standard B342- <del>09</del> , "Selection and use of UN pressure receptacles and multiple-element gas containers for the transport of dangerous goods, Class 2", <del>March 2009</del> , published by the Canadian Standards Association (CSA), <b>as amended from time to time</b>
CSA Standard B620-09, "Highway tanks and TC portable tanks for the transportation of dangerous goods", January 2009, published by the Canadian Standards Association (CSA)	CSA Standard B620- <del>09</del> , "Highway tanks and TC portable tanks for the transportation of dangerous goods", <del>January 2009</del> , published by the Canadian Standards Association (CSA), <b>as amended from time to time</b>
CSA Standard B621-09, "Selection and use of highway tanks, TC portable tanks, and other large containers for the transportation of dangerous goods, Classes 3, 4, 5, 6.1, 8, and 9", January 2009, published by the Canadian Standards Association (CSA)	CSA Standard B621- <del>09</del> , "Selection and use of highway tanks, TC portable tanks, and other large containers for the transportation of dangerous goods, Classes 3, 4, 5, 6.1, 8, and 9", <del>January 2009</del> , published by the Canadian Standards Association (CSA), <b>as amended from time to time</b>
CSA Standard B622-09, "Selection and use of highway tanks, TC portable tanks, and ton containers for the transportation of dangerous goods, Class 2", January 2009, published by the Canadian Standards Association (CSA)	CSA Standard B622- <del>09</del> , "Selection and use of highway tanks, TC portable tanks, and ton containers for the transportation of dangerous goods, Class 2", <del>January 2009</del> , published by the Canadian Standards Association (CSA), <b>as amended from time to time</b>
CSA Standard B625-08, "Portable tanks for the transport of dangerous goods", July 2008, published by the Canadian Standards Association (CSA)	CSA Standard B625- <del>08</del> , "Portable tanks for the transport of dangerous goods", <del>July 2008</del> , published by the Canadian Standards Association (CSA), <b>as amended from time to time</b>
CSA Standard B626-09, "Portable tank specification TC 44", February 2009, published by the Canadian Standards Association (CSA)	CSA Standard B626- <del>09</del> , "Portable tank specification TC 44", <del>February 2009</del> , published by the Canadian Standards Association (CSA), <b>as amended from time to time</b>
International Standard ISO 10156, "Gases and gas mixtures — Determination of fire potential and oxidizing ability for the selection of cylinder valve outlets", Second Edition, February 15, 1996, published by the International Organization for Standardization (ISO)	International Standard ISO 10156, "Gases and gas mixtures — Determination of fire potential and oxidizing ability for the selection of cylinder valve outlets", <del>Second Edition, February 15, 1996</del> , published by the International Organization for Standardization (ISO), <b>as amended from time to time</b>

Current Text TDG Regulations	Proposed Text
International Standard ISO 2431, "Paints and varnishes — Determination of flow time by use of flow cups", Fourth Edition, February 15, 1993, including Technical Corrigendum 1, 1994, published by the International Organization for Standardization (ISO)	International Standard ISO 2431, "Paints and varnishes — Determination of flow time by use of flow cups", <del>Fourth Edition, February 15, 1993, including Technical Corrigendum 1, 1994</del> , published by the International Organization for Standardization (ISO), <b>as amended from time to time</b>
International Standard ISO 2592:2000(E), "Determination of flash and fire points — Cleveland open cup method", Second Edition, September 15, 2000, published by the International Organization for Standardization (ISO)	International Standard ISO 2592:2000(E), "Determination of flash and fire points — Cleveland open cup method", <del>Second Edition, September 15, 2000</del> , published by the International Organization for Standardization (ISO), <b>as amended from time to time</b>
OECD Guidelines for the Testing of Chemicals No. 404, "Acute Dermal Irritation/Corrosion", April 24, 2002, published by the Organization for Economic Co-operation and Development (OECD)	OECD <b>Test</b> Guidelines for the Testing of Chemicals No. 404, "Acute Dermal Irritation/Corrosion", <del>April 24, 2002</del> , published by the Organization for Economic Co-operation and Development (OECD), <b>as amended from time to time</b>
OECD Guidelines for the Testing of Chemicals No. 430, "In Vitro Skin Corrosion: Transcutaneous Electrical Resistance Test Method", July 26, 2013, published by the Organization for Economic Co-operation and Development (OECD)	OECD <b>Test</b> Guidelines for the Testing of Chemicals No. 430, "In Vitro Skin Corrosion: Transcutaneous Electrical Resistance Test Method", <del>July 26, 2013</del> , published by the Organization for Economic Co-operation and Development (OECD), <b>as amended from time to time</b>
OECD Guidelines for the Testing of Chemicals No. 431, "In vitro skin corrosion: reconstructed human epidermis (RHE) test method", July 26, 2013, published by the Organization for Economic Co-operation and Development (OECD)	OECD <b>Test</b> Guidelines for the Testing of Chemicals No. 431, "In vitro skin corrosion: reconstructed human epidermis (RHE) test method", <del>July 26, 2013</del> , published by the Organization for Economic Co-operation and Development (OECD), <b>as amended from time to time</b>
OECD Guideline for the Testing of Chemicals No. 435, "In Vitro Membrane Barrier Test Method for Skin Corrosion", July 19, 2006, published by the Organization for Economic Co-operation and Development (OECD)	OECD <b>Test</b> Guideline for the Testing of Chemicals No. 435, "In Vitro Membrane Barrier Test Method for Skin Corrosion", <del>July 19, 2006</del> , published by the Organization for Economic Co-operation and Development (OECD), <b>as amended from time to time</b>



## 1.50 Hot-air Balloon Exemption

Propane and liquefied petroleum gas (LPG) cylinders used for hot air ballooning are not TC-certified cylinders (under the TDG Regulations), therefore, are not in compliance with the current Regulations. The temporary solution has been to issue Equivalency Certificates to allow the transport of the non-specification cylinders, but this is not considered an ideal long-term solution.

TDG Regulations Section 1.49 "Cylinder Exemption" provides for the transport of dangerous goods in cylinders for/from a ship or aircraft. It allows a cylinder that is not in compliance with Part 5 of the TDG Regulations to be transported by a road vehicle for the purpose of refilling, exchange or requalification when certain conditions are followed. This exemption does not always apply to hot air balloon cylinders because they are not always transported for purpose of refilling, exchange or requalification. The cylinders are often transported by road from one site to another (e.g. from storage to a launch site). The text below proposes to exempt hot air balloon cylinders from the TDG Regulations under specific conditions and recognize cylinder specifications approved in the United States under the 14 CFR (article 91.715) and in Europe under special provision 652 of the *European Agreement concerning the International Carriage of Dangerous Goods by Road (ADR)* and the *Transportable Pressure Equipment Directive*.

The ADR requires a phased withdrawal of older cylinders in Europe; however, such an approach is unfavourable in Canada because there are only 490 balloons operating domestically, most as hobby balloons. Therefore, it is proposed that Hot air balloon cylinders manufactured before the coming into force date of this amendment would be grandfathered as withdrawal would have significant impact on the industry as the cost of currently used stainless steel cylinders is around \$5 000.

According to CSA B340, requalification of cylinders may be omitted if the cylinder can be identified as having been requalified within specified timeframe. The inclusion of such a statement would also be required for balloons entering Canada for festivals.

Considerations for safety would be assured through requirements regarding use and periodic requalification of all cylinders.

Conditions	Proposed text <sup>1</sup>
<p>The cylinders are solely for use in hot air balloons.</p> <p>The dangerous goods are UN1075, liquefied petroleum gases or UN1978, propane.</p> <ul style="list-style-type: none"> <li>• For cylinders manufactured after <i>January 1, 2017</i><sup>2</sup>, the cylinder must be manufactured:               <ul style="list-style-type: none"> <li>○ In accordance with a specification for cylinders set out in 49CFR, or</li> <li>○ In accordance with ADR under a competent authority approval and marked with a Pi mark in accordance with the <i>Transportable Pressure Equipment Directive (TPED)</i></li> </ul> </li> <li>• The cylinders are designed, constructed, filled, closed, secured and maintained so that under normal conditions of transport, including handling, there will be no accidental release of the dangerous goods that could endanger public safety.</li> <li>• The cylinders have been approved for use as a component of the fuel system in a hot air balloon with a valid flight authority authorized by the <i>Canadian Aviation Regulations (CARs)</i>.</li> <li>• The cylinders are used in LPG service only. The</li> </ul>	<p><b>1.50 Hot-Air Balloon Exemption</b></p> <p>Sections 5.1, 5.2, and 5.5, subparagraphs 5.10(1)(a)(ii), 5.10(1)(a)(iii), 5.10(1)(b)(iii), 5.10(1)(b)(iv), 5.10(1)(d)(iii), 5.10(1)(d)(iv) and subsection 5.10(2) of Part 5 (Means of Containment) do not apply to the handling, offering for transport or transporting of UN1075, LIQUEFIED PETROLEUM GASES and UN1978, PROPANE in a cylinder if:</p> <p>a) the cylinder is for use only in a hot-air balloon;</p> <p>b) the cylinder has been approved for use as a component of the fuel system in a hot-air balloon with a valid flight authority authorized by the <i>Canadian Aviation Regulations</i>;</p> <p>c) the cylinder is designed, constructed, filled, closed, secured and maintained so that under normal conditions of transport, including handling, there will be no accidental release of the dangerous goods that could endanger public safety;</p> <p>d) for cylinders manufactured after 1 January 2017, the cylinder must be manufactured:</p>

<sup>1</sup> Initial draft of regulatory text, subject to change once revised by legal counsel.

<sup>2</sup> Arbitrary date for new manufacturing requirements. This date can be modified depending on the coming into force date.

Conditions	Proposed text <sup>1</sup>
<p>liquid phase must not exceed 85% of the capacity of each cylinder at 15 °C. The use of nitrogen for additional pressurization must only be permitted in accordance with the flight manual of the balloon as approved under authorization by the <i>Canadian Aviation Regulations</i> (CARs). The maximum cylinder pressure, when pressurized with nitrogen, must not exceed 10 bar.</p> <ul style="list-style-type: none"> <li>• Cylinder use is in compliance with CSA B340-08 clauses 4.1.1.2, 4.2, 4.3.7, 4.3.8, 5.1.1, 5.1.3 (b, c, d, e), 5.1.8 (e.g. pressure relief devices, prefill inspection, orientation, securement, valves, etc.)</li> <li>• The cylinder is requalified by proof pressure test in conjunction with an internal and external visual inspection at an interval of no more than 10 years by a facility registered with Transport Canada in accordance with CSA B339. Following requalification the cylinder must be marked in accordance with CSA B339.</li> <li>• Cylinder requalification may be omitted in accordance with clause 6.5.1(b) of CSA B340.</li> </ul>	<p>(i) in accordance with a specification for cylinders set out in Subpart C of Part 178 of <i>49CFR</i>, or</p> <p>(ii) in accordance with <i>ADR</i> and marked with a Pi marking in accordance with articles 14 and 15 of the <i>Transportable Pressure Equipment Directive</i> (TPED);</p> <p>e) the cylinder is used in compliance with CSA B340 clauses 4.1.1.2, 4.1.3, 4.1.4, 4.2, 4.3.1, 4.3.2, 4.3.7, 4.3.8, 4.3.9, 5.1.1, 5.1.2, 5.1.3 (b, c, d, e), and 5.1.8;</p> <p>f) the liquid phase is less than or equal to 85% of the capacity of each cylinder at 15 °C;</p> <p>g) the use of nitrogen for additional pressurization is done in accordance with the flight manual of the hot-air balloon as approved by the <i>Canadian Aviation Regulations</i> and the maximum cylinder pressure, when pressurized with nitrogen, does not exceed 10 bar; and</p> <p>h) before being filled, the cylinder is requalified by proof pressure test in conjunction with an internal and external visual inspection at an interval of no more than 10 years by a facility registered with Transport Canada and marked in accordance with CSA B339.</p> <p><i>This requalification may be omitted only if the cylinder can be identified as having been requalified within the time-frame as specified in Table 29 of CSA B339.</i></p>

## Part 2 - Classification

### Selection of packing groups for viscous flammable liquids

This amendment proposes to update the classification provisions for the selection of packing groups of viscous flammable liquids. This update will provide clarification and harmonization with the UN Model Regulation recommendations.

Current Text TDG Regulations	Proposed text																												
<p><b>2.19(3)</b> Despite paragraph (1)(b), a viscous substance that has an initial boiling point greater than 35°C at an absolute pressure of 101.3 kPa and a flash point less than 23°C may be included in Packing Group III if</p> <p>(a) the substance or any separated solvent does not meet the criteria for inclusion in Class 6.1 or Class 8;</p> <p>(b) the substance meets the Packing Group III criteria of the solvent separation test in section 32.5.1 of Part III of the Manual of Tests and Criteria; and</p> <p>(c) the substance</p> <p>(i) has been tested in accordance with either ASTM D 1200 or ISO 2431, and</p> <p>(ii) has a kinematic viscosity, measured as flow time, that is within the range shown in column 3 of the following table, using a jet with the diameter shown in column 2 for the corresponding flash point in column 1.</p>	<p><b>2.19(3)</b> Despite paragraph (1)(b), a viscous <b>flammable liquids substance</b> that <del>have has an initial boiling point greater than 35°C at an absolute pressure of 101.3 kPa and</del> a flash point less than 23°C may be included in Packing Group III if</p> <p>(a) the substance or any separated solvent does not meet the criteria for inclusion in Class 6.1 or Class 8;</p> <p>(b) <del>less than 3% of the clear solvent layer separates in the solvent separation test, as per the substance meets the Packing Group III criteria of the solvent separation test in</del> subsection 32.5.1 of Part III of the Manual of Tests and Criteria; and</p> <p>(c) The viscosity and flash-point are in accordance with the following table:</p> <table border="1" data-bbox="808 997 1533 1454"> <thead> <tr> <th data-bbox="808 997 1117 1193">Kinematic viscosity (extrapolated) <math>\nu</math> (at near-zero shear rate) <math>\text{mm}^2/\text{s}</math> at 23 °C</th> <th data-bbox="1117 997 1268 1193">Flow-time <math>t</math> (in seconds)</th> <th data-bbox="1268 997 1386 1193">Jet diameter (mm)</th> <th data-bbox="1386 997 1533 1193">Flash-point, closed-cup (°C)</th> </tr> </thead> <tbody> <tr> <td data-bbox="808 1193 1117 1239">20 &lt; <math>\nu</math> ≤ 80</td> <td data-bbox="1117 1193 1268 1239">20 &lt; <math>t</math> ≤ 60</td> <td data-bbox="1268 1193 1386 1239">4</td> <td data-bbox="1386 1193 1533 1239">above 17</td> </tr> <tr> <td data-bbox="808 1239 1117 1284">80 &lt; <math>\nu</math> ≤ 135</td> <td data-bbox="1117 1239 1268 1284">60 &lt; <math>t</math> ≤ 100</td> <td data-bbox="1268 1239 1386 1284">4</td> <td data-bbox="1386 1239 1533 1284">above 10</td> </tr> <tr> <td data-bbox="808 1284 1117 1330">135 &lt; <math>\nu</math> ≤ 220</td> <td data-bbox="1117 1284 1268 1330">20 &lt; <math>t</math> ≤ 32</td> <td data-bbox="1268 1284 1386 1330">6</td> <td data-bbox="1386 1284 1533 1330">above 5</td> </tr> <tr> <td data-bbox="808 1330 1117 1376">220 &lt; <math>\nu</math> ≤ 300</td> <td data-bbox="1117 1330 1268 1376">32 &lt; <math>t</math> ≤ 44</td> <td data-bbox="1268 1330 1386 1376">6</td> <td data-bbox="1386 1330 1533 1376">above -1</td> </tr> <tr> <td data-bbox="808 1376 1117 1421">300 &lt; <math>\nu</math> ≤ 700</td> <td data-bbox="1117 1376 1268 1421">44 &lt; <math>t</math> ≤ 100</td> <td data-bbox="1268 1376 1386 1421">6</td> <td data-bbox="1386 1376 1533 1421">above -5</td> </tr> <tr> <td data-bbox="808 1421 1117 1454">700 &lt; <math>\nu</math></td> <td data-bbox="1117 1421 1268 1454">100 &lt; <math>t</math></td> <td data-bbox="1268 1421 1386 1454">6</td> <td data-bbox="1386 1421 1533 1454">No limit</td> </tr> </tbody> </table> <p>(i) Viscosity test must be done in accordance with the procedure prescribed in subsection 32.3 of Part III of the Manual of Tests and Criteria, or ISO 2431;</p> <p>(ii) Viscosity determination: Where the substance concerned is non-Newtonian, or where a flow cup method of viscosity determination is otherwise unsuitable, a variable shear-rate viscometer must be used to determine the dynamic viscosity coefficient of the substance, at 23 °C, at a number of shear rates. The values obtained are plotted against shear rate and then extrapolated to zero shear rate. The dynamic viscosity thus obtained, divided by the density, gives the apparent kinematic viscosity at near-zero shear rate.</p> <p><del>(d) the substance</del></p> <p><del>(i) has been tested in accordance with either ASTM D 1200 or ISO 2431, and</del></p> <p><del>has a kinematic viscosity, measured as flow time, that is within the range shown in column 3 of the following table, using a jet with the diameter shown in column 2 for the corresponding flash point in column 1.</del></p>	Kinematic viscosity (extrapolated) $\nu$ (at near-zero shear rate) $\text{mm}^2/\text{s}$ at 23 °C	Flow-time $t$ (in seconds)	Jet diameter (mm)	Flash-point, closed-cup (°C)	20 < $\nu$ ≤ 80	20 < $t$ ≤ 60	4	above 17	80 < $\nu$ ≤ 135	60 < $t$ ≤ 100	4	above 10	135 < $\nu$ ≤ 220	20 < $t$ ≤ 32	6	above 5	220 < $\nu$ ≤ 300	32 < $t$ ≤ 44	6	above -1	300 < $\nu$ ≤ 700	44 < $t$ ≤ 100	6	above -5	700 < $\nu$	100 < $t$	6	No limit
Kinematic viscosity (extrapolated) $\nu$ (at near-zero shear rate) $\text{mm}^2/\text{s}$ at 23 °C	Flow-time $t$ (in seconds)	Jet diameter (mm)	Flash-point, closed-cup (°C)																										
20 < $\nu$ ≤ 80	20 < $t$ ≤ 60	4	above 17																										
80 < $\nu$ ≤ 135	60 < $t$ ≤ 100	4	above 10																										
135 < $\nu$ ≤ 220	20 < $t$ ≤ 32	6	above 5																										
220 < $\nu$ ≤ 300	32 < $t$ ≤ 44	6	above -1																										
300 < $\nu$ ≤ 700	44 < $t$ ≤ 100	6	above -5																										
700 < $\nu$	100 < $t$	6	No limit																										
<p>Table</p> <table border="1" data-bbox="94 1185 776 1749"> <thead> <tr> <th data-bbox="94 1185 354 1354">Column 1 Flash point (FP) in °C (closed cup)</th> <th data-bbox="354 1185 532 1354">Column 2 Jet diameter in mm</th> <th data-bbox="532 1185 776 1354">Column 3 Flow time (t) in seconds</th> </tr> </thead> <tbody> <tr> <td data-bbox="94 1354 354 1419">&gt; 17</td> <td data-bbox="354 1354 532 1419">4</td> <td data-bbox="532 1354 776 1419">20 &lt; t ≤ 60</td> </tr> <tr> <td data-bbox="94 1419 354 1483">&gt; 10</td> <td data-bbox="354 1419 532 1483">4</td> <td data-bbox="532 1419 776 1483">60 &lt; t ≤ 100</td> </tr> <tr> <td data-bbox="94 1483 354 1548">&gt; 5</td> <td data-bbox="354 1483 532 1548">6</td> <td data-bbox="532 1483 776 1548">20 &lt; t ≤ 32</td> </tr> <tr> <td data-bbox="94 1548 354 1612">&gt; -1</td> <td data-bbox="354 1548 532 1612">6</td> <td data-bbox="532 1548 776 1612">32 &lt; t ≤ 44</td> </tr> <tr> <td data-bbox="94 1612 354 1677">&gt; -5</td> <td data-bbox="354 1612 532 1677">6</td> <td data-bbox="532 1612 776 1677">44 &lt; t ≤ 100</td> </tr> <tr> <td data-bbox="94 1677 354 1749">≤ -5</td> <td data-bbox="354 1677 532 1749">6</td> <td data-bbox="532 1677 776 1749">2 &lt; t</td> </tr> </tbody> </table>	Column 1 Flash point (FP) in °C (closed cup)	Column 2 Jet diameter in mm	Column 3 Flow time (t) in seconds	> 17	4	20 < t ≤ 60	> 10	4	60 < t ≤ 100	> 5	6	20 < t ≤ 32	> -1	6	32 < t ≤ 44	> -5	6	44 < t ≤ 100	≤ -5	6	2 < t								
Column 1 Flash point (FP) in °C (closed cup)	Column 2 Jet diameter in mm	Column 3 Flow time (t) in seconds																											
> 17	4	20 < t ≤ 60																											
> 10	4	60 < t ≤ 100																											
> 5	6	20 < t ≤ 32																											
> -1	6	32 < t ≤ 44																											
> -5	6	44 < t ≤ 100																											
≤ -5	6	2 < t																											



## Classification criteria for polymerizing substances under Class 4.1, Flammable Solids

This amendment proposes to update the classification provisions of polymerizing substances under Class 4.1, Flammable Solids. This modification will provide clarification of requirements and harmonization to the UN Model Regulation recommendations.

Current Text TDG Regulations	Proposed Revision
<p><b>2.21 Divisions</b></p> <p>(a) Class 4.1, Flammable Solids, which consists of substances that are</p> <ul style="list-style-type: none"> <li>(i) readily combustible, as determined in accordance with section 2.4.2.2 of Chapter 2.4 of the UN Recommendations,</li> <li>(ii) under normal conditions of transport, liable to cause fire through friction,</li> <li>(iii) solid desensitized explosives, which are solid explosives desensitized through wetting with water or alcohols or diluted with other substances to form a homogeneous solid mixture to suppress their explosive properties so that they are not included in Class 1, Explosives,</li> </ul> <p><i>Substances that have one of the following UN numbers meet the criterion in subparagraph (iii): UN1310, UN1320, UN1321, UN1322, UN1336, UN1337, UN1344, UN1347, UN1348, UN1349, UN1354, UN1355, UN1356, UN1357, UN1517, UN1571, UN2555, UN2556, UN2557, UN2852, UN2907, UN3270, UN3319, UN3344.</i></p> <ul style="list-style-type: none"> <li>(iv) self-reactive substances that are liable to undergo a strongly exothermic decomposition even without the participation of oxygen (air), as determined in accordance with section 2.4.2.3 of Chapter 2.4 of the UN Recommendations, but Class 4.1 does not include substances that have <ul style="list-style-type: none"> <li>(A) a primary class of Class 1, Explosives, Class 5.1, Oxidizing Substances, or Class 5.2, Organic Peroxides,</li> <li>(B) a heat of decomposition less than 300 J/g, or</li> <li>(C) a self-accelerating decomposition temperature (SADT) that is greater than 75°C for a 50 kg means of containment, as determined in accordance with section 2.4.2.3.4 of Chapter 2.4 of the UN Recommendations,</li> </ul> </li> <li>(v) identified by one of the following UN numbers: UN2956, UN3241, UN3242 or UN3251, or</li> <li>(vi) are in the list of currently assigned self-reactive substances in section 2.4.2.3.2.3 of Chapter 2.4 of the UN</li> </ul>	<p><b>2.21 Divisions</b></p> <p>(a) Class 4.1, Flammable Solids, which consists of substances that are</p> <ul style="list-style-type: none"> <li>(i) readily combustible, as determined in accordance with section 2.4.2.2 of Chapter 2.4 of the UN Recommendations,</li> <li>(ii) under normal conditions of transport, liable to cause fire through friction,</li> <li>(iii) solid desensitized explosives, which are solid explosives desensitized through wetting with water or alcohols or diluted with other substances to form a homogeneous solid mixture to suppress their explosive properties so that they are not included in Class 1, Explosives,</li> </ul> <p><i>Substances that have one of the following UN numbers meet the criterion in subparagraph (iii): UN1310, UN1320, UN1321, UN1322, UN1336, UN1337, UN1344, UN1347, UN1348, UN1349, UN1354, UN1355, UN1356, UN1357, UN1517, UN1571, UN2555, UN2556, UN2557, UN2852, UN2907, UN3270, UN3319, UN3344.</i></p> <ul style="list-style-type: none"> <li>(iv) self-reactive substances <b>and polymerizing substances</b> that are liable to undergo a strongly exothermic decomposition even without the participation of oxygen (air), as determined in accordance with subsections 2.4.2.3 <b>and 2.4.2.5</b> of Chapter 2.4 of the UN Recommendations, but Class 4.1 does not include substances that have <ul style="list-style-type: none"> <li>(A) a primary class of Class 1, Explosives, Class 5.1, Oxidizing Substances, or Class 5.2, Organic Peroxides,</li> <li>(B) a heat of decomposition less than 300 J/g, or</li> <li>(C) a self-accelerating decomposition temperature (SADT) that is greater than 75°C for a 50 kg means of containment, as determined in accordance with section 2.4.2.3.4 of Chapter 2.4 of the UN Recommendations,</li> </ul> </li> <li>(v) identified by one of the following UN numbers: UN2956, UN3241, UN3242 or UN3251, or</li> <li>(vi) are in the list of currently assigned self-reactive substances in section 2.4.2.3.2.3 of Chapter 2.4 of the UN Recommendations;</li> </ul>

Current Text TDG Regulations	Proposed Revision
Recommendations;	
<p><b>2.22 Packing Groups</b></p> <p>(1) Substances included in Class 4.1, Flammable Solids, are included in one of the following packing groups:</p> <p>(a) Packing Group I, if (...);</p> <p>(b) Packing Group II, if (...); or</p> <p>(c) Packing Group III, if</p> <p>(i) in tests referred to in section 33.2.1 of Part III of the Manual of Tests and Criteria, for readily combustible solids, excluding metal powders, the burning time of the substances is less than 45 seconds and the wetted zone stops the flame propagation for at least 4 minutes,</p> <p>(ii) in tests referred to in section 33.2.1 of Part III of the Manual of Tests and Criteria, for readily combustible solids that are powders of metals or metal alloys, the zone of reaction of the substances spreads over the whole length of the sample in more than 5 minutes but not more than 10 minutes, or</p> <p>(iii) the substances are solids that are liable to cause fire through friction, or</p>	<p><b>2.22 Packing Groups</b></p> <p>(1) Substances included in Class 4.1, Flammable Solids, are included in one of the following packing groups:</p> <p>(a) Packing Group I, if (...);</p> <p>(b) Packing Group II, if (...); or</p> <p>(c) Packing Group III, if</p> <p>(i) in tests referred to in section 33.2.1 of Part III of the Manual of Tests and Criteria, for readily combustible solids, excluding metal powders, the burning time of the substances is less than 45 seconds and the wetted zone stops the flame propagation for at least 4 minutes,</p> <p>(ii) in tests referred to in section 33.2.1 of Part III of the Manual of Tests and Criteria, for readily combustible solids that are powders of metals or metal alloys, the zone of reaction of the substances spreads over the whole length of the sample in more than 5 minutes but not more than 10 minutes, or</p> <p>(iii) the substances are solids that are liable to cause fire through friction, or</p> <p>(iv) the substances are polymerizing substances in accordance with section 2.4.2.5.1 of Chapter 2.4 of the UN Recommendations.</p>

### ***Alternative test for assigning packing groups to Division 5.1 oxidizing solids***

This amendment proposes to modify Section 2.25 in accordance with the 19<sup>th</sup> edition of the UN Model Regulation to authorize alternative testing for Division 5.1 oxidizing solids.

This test is in addition to the currently authorized test using potassium bromate/cellulose mixture. The alternative test uses calcium peroxide as a reference substance which is neither carcinogenic nor as acutely toxic as potassium bromate. This test is also an alternative to the subjective visual determination of burning rates.

Current Text TDG Regulations	Proposed Text
<p><b>2.25 Packing Groups</b></p> <p>(1) The determination of packing groups for Class 5.1, Oxidizing Substances, must be made</p> <p>(a) for solids, using a test sample of a 4:1 or 1:1 mixture of substance and cellulose by mass, prepared and tested in accordance with section 2.5.2.2 of Chapter 2.5 of the UN Recommendations; or</p> <p>(b) for liquids, using a test sample of a 1:1 mixture of substance and cellulose by mass, prepared and tested in accordance with section 2.5.2.3 of Chapter 2.5 of the UN Recommendations.</p> <p>(2) Substances included in Class 5.1, Oxidizing Substances, are included in one of the following packing groups:</p> <p>(a) for solids,</p> <p>(i) Packing Group I, if the test sample exhibits an average burning time less</p>	<p><b>2.25 Packing Groups</b></p> <p>(1) The determination of packing groups for Class 5.1, Oxidizing Substances, must be made</p> <p>(a) for solids, using a test sample <del>of a 4:1 or 1:1 mixture of the substance and cellulose by mass,</del> prepared and tested in accordance with section 2.5.2.2 of Chapter 2.5 of the UN Recommendations; or</p> <p>(b) for liquids, using a test sample <del>of a 1:1 mixture of the substance and cellulose by mass,</del> prepared and tested in accordance with section 2.5.2.3 of Chapter 2.5 of the UN Recommendations.</p> <p>(2) Substances included in Class 5.1, Oxidizing Substances, are included in one of the following packing groups:</p> <p>(a) for solids, the procedure is given in the <i>Manual of Tests and Criteria, Part III, sub-section 34.4.1 (test O.1) or alternatively, in</i></p>

Current Text TDG Regulations	Proposed Text
<p>than the mean burning time of a 3:2 mixture by mass of potassium bromate and cellulose,</p> <p>(ii) Packing Group II, if the test sample exhibits an average burning time less than or equal to the mean burning time of a 2:3 mixture by mass of potassium bromate and cellulose and the criteria for inclusion in Packing Group I are not met, or</p> <p>(iii) Packing Group III, if the test sample exhibits an average burning time less than or equal to the mean burning time of a 3:7 mixture by mass of potassium bromate and cellulose and the criteria for inclusion in Packing Group I or II are not met; or</p> <p>(b) for liquids,</p> <p>(i) Packing Group I, if the substance in a 1:1 mixture by mass of substance and cellulose spontaneously ignites or the mean pressure rise time is less than or equal to that of a 1:1 mixture by mass of 50 percent perchloric acid and cellulose,</p> <p>(ii) Packing Group II, if the mean pressure rise time is less than or equal to the mean pressure rise time of a 1:1 mixture by mass of 40 per cent aqueous sodium chlorate solution and cellulose and the criteria for inclusion in Packing Group I are not met, or</p> <p>(iii) Packing Group III, if the mean pressure rise time is less than or equal to the mean pressure rise time of a 1:1 mixture by mass of 65 per cent aqueous nitric acid solution and cellulose and the criteria for inclusion in Packing Group I or II are not met.</p> <p>(3) Class 5.2, Organic Peroxides, are included in Packing Group II.</p> <p>(4) The type, B to F, of organic peroxides must be determined in accordance with section 2.5.3.3 of Chapter 2.5 of the UN Recommendations.</p>	<p>sub-section 34.4.3 (test O.3),</p> <p>(i) Packing Group I, if the test sample exhibits an average burning time: <del>less than the mean burning time of a 3:7 mixture by mass of potassium bromate and cellulose,</del></p> <p>(A) less than the mean burning time of a 3:2 potassium bromate/cellulose mixture if test O.1 is used; or</p> <p>(B) greater than the mean burning rate of a 3:1 calcium peroxide/cellulose mixture if test O.3 is used;</p> <p>(ii) Packing Group II, if the test sample exhibits an average burning time: <del>less than or equal to the mean burning time of a 2:3 mixture by mass of potassium bromate and cellulose and the criteria for inclusion in Packing Group I are not met, or</del></p> <p>(A) less than the mean burning time of a 2:3 potassium bromate/cellulose mixture, if test O.1 is used, and the criteria for Packing Group I are not met; or</p> <p>(B) greater than the mean burning rate of a 1:1 calcium peroxide/cellulose mixture, if test O.3 is used, and the criteria for Packing Group I are not met</p> <p>(iii) Packing Group III, if the test sample exhibits an average burning time: <del>less than or equal to the mean burning time of a 3:7 mixture by mass of potassium bromate and cellulose and the criteria for inclusion in Packing Group I or II are not met; or</del></p> <p>(A) less than the mean burning time of a 3:7 potassium bromate/cellulose mixture, if test O.1 is used, and the criteria for Packing Groups I and II are not met; or</p> <p>(B) greater than the mean burning rate of a 1:2 calcium peroxide/cellulose mixture, if test O.3 is used, and the criteria for Packing Groups I and II are not met.</p> <p>(b) for liquids,</p> <p>(i) Packing Group I, if the substance in a 1:1 mixture by mass of substance and cellulose spontaneously ignites or the mean pressure rise time is less than or</p>

Current Text TDG Regulations	Proposed Text
	<p>equal to that of a 1:1 mixture by mass of 50 percent perchloric acid and cellulose,</p> <p>(ii) Packing Group II, if the mean pressure rise time is less than or equal to the mean pressure rise time of a 1:1 mixture by mass of 40 per cent aqueous sodium chlorate solution and cellulose and the criteria for inclusion in Packing Group I are not met, or</p> <p>(iii) Packing Group III, if the mean pressure rise time is less than or equal to the mean pressure rise time of a 1:1 mixture by mass of 65 per cent aqueous nitric acid solution and cellulose and the criteria for inclusion in Packing Group I or II are not met.</p> <p>(3) Class 5.2, Organic Peroxides, are included in Packing Group II.</p> <p>(4) The type, B to F, of organic peroxides must be determined in accordance with section 2.5.3.3 of Chapter 2.5 of the UN Recommendations.</p>

### Consequential amendment to part 2

The following proposed changes result from wording amendments (see above section on dynamic references) of the names of standards found in Section 1.3.1 table and apply only to the English version.

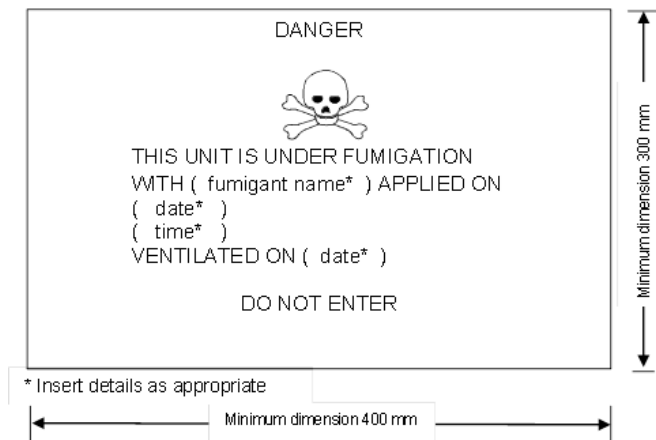
Provision	Current Text	Proposed Text
2.40(b)	(b) cause full thickness skin destruction, as determined in accordance with OECD Guidelines 430 or OECD Guidelines 431; or	(b) cause full thickness skin destruction, as determined in accordance with OECD <b>Test</b> Guidelines 430 or OECD <b>Test</b> Guidelines 431; or
2.42(2)(a)(ii)	(ii) full thickness destruction of intact skin tissue occurs within an observation period of 60 minutes after an exposure time of 3 minutes or less, as determined in accordance with OECD Guidelines 404 or OECD Guidelines 435;	(ii) full thickness destruction of intact skin tissue occurs within an observation period of 60 minutes after an exposure time of 3 minutes or less, as determined in accordance with OECD <b>Test</b> Guidelines 404 or OECD <b>Test</b> Guidelines 435;
2.42(2)(b)	(b) Packing Group II, if full thickness destruction of skin occurs within an observation period of 14 days after an exposure time of more than 3 minutes but not more than 60 minutes, as determined in accordance with OECD Guidelines 404 or OECD Guidelines 435; or	(b) Packing Group II, if full thickness destruction of skin occurs within an observation period of 14 days after an exposure time of more than 3 minutes but not more than 60 minutes, as determined in accordance with OECD <b>Test</b> Guidelines 404 or OECD <b>Test</b> Guidelines 435; or
2.42(2)(c)(i)	(i) full thickness destruction of intact skin tissue occurs within an observation period of 14 days after an exposure time of more than 60 minutes but not more than 4 hours, as determined in accordance with OECD Guidelines 404 or OECD Guidelines 435, or	(i) full thickness destruction of intact skin tissue occurs within an observation period of 14 days after an exposure time of more than 60 minutes but not more than 4 hours, as determined in accordance with OECD <b>Test</b> Guidelines 404 or OECD <b>Test</b> Guidelines 435, or

## Part 4 - Dangerous Good Safety Marks

This amendment proposes the following changes to Part 4 of the TDG Regulations which would harmonize it with the 19<sup>th</sup> Edition of the UN Model Regulation and greatly help emergency responders to recognize a potential danger.

## ***Fumigation sign***

The following is a new fumigation sign (as required under the IMDG Code) to be displayed on large means of containment that have been fumigated with dangerous goods.



Black: Symbol and text

White: Background

Size: Rectangle, at least 400 mm wide and 300 mm high

The symbol is the word DANGER centered on top of skull and crossbones.

The additional text under the symbol is:

THIS UNIT IS UNDER FUMIGATION  
WITH (name of fumigant\*) APPLIED ON  
(date\*)  
(time\*)  
VENTILATED ON (date\*)

DO NOT ENTER

\*Enter details as appropriate

## “OVERPACK” marking

This amendment revises the requirements with respect to the OVERPACK marking in order to align the TDG Regulations with the new UN Recommendations. The changes will clarify marking requirement and standardize size specifications, ensure the safety marks are more visible, help ensure the dangerous goods are handled according to their classifications as well as reduce potential impacts on the environment and safety in case of accidents.

Current Text TDG Regulations	Proposed Text
<p>4.10.1 Safety Marks on an Overpack</p> <p>(1) When a safety mark is required by this Part to be displayed on a small means of containment and the small means of containment is inside an overpack, the person who prepares the overpack must display</p> <p style="padding-left: 40px;">(a) the word “Overpack” or “Suremballage” on at least one side of the overpack;</p> <p style="padding-left: 40px;">(b) the information required by subsection (3) on one side of the overpack, if its capacity is less than 1.8 m3 (64 cubic feet); and</p> <p style="padding-left: 40px;">(c) the information required by subsection (3) on two opposite sides of the overpack, if its capacity is greater than or equal to 1.8 m3 (64 cubic feet).</p> <p>(2) Paragraphs (1)(b) and (c) do not apply if the safety mark on the small means of containment is visible through the overpack</p> <p>(3) The following information must be displayed on the overpack:</p> <p style="padding-left: 40px;">(a) the primary class label and each subsidiary class label for each of the dangerous goods contained in the overpack, except that only one label is required for dangerous goods that are included in the same class; and</p> <p style="padding-left: 40px;">(b) the shipping name and UN number of the dangerous goods.</p> <p>(4) When dangerous goods included in Class 7, Radioactive Materials, are transported in an overpack and a label is required to be displayed by this Part, the overpack must be prepared in accordance with section 16(4) of the “Packaging and Transport of Nuclear Substances Regulations”.</p>	<p>(1) When a safety mark is required by this Part to be displayed on a small means of containment and the small means of containment is inside an overpack, the person who prepares the overpack must display</p> <p style="padding-left: 40px;">(a) the word “Overpack” or “Suremballage” on a contrasting background in letters at least 12 mm high on at least one side of the overpack;</p> <p style="padding-left: 40px;">(b) the information required by subsection (3) on one side of the overpack, if its capacity is less than 1.8 m3 (64 cubic feet); and</p> <p style="padding-left: 40px;">(c) the information required by subsection (3) on two opposite sides of the overpack, if its capacity is greater than or equal to 1.8 m3 (64 cubic feet).</p> <p>(2) Paragraphs <del>(1)(b) and (c)</del> Subsection (1) do not apply if the safety mark on the small means of containment is visible through the overpack</p> <p>(3) The following information must be displayed on the overpack:</p> <p style="padding-left: 40px;">(a) the primary class label and each subsidiary class label for each of the dangerous goods contained in the overpack, except that only one label is required for dangerous goods that are included in the same class; and</p> <p style="padding-left: 40px;">(b) the shipping name and UN number of the dangerous goods.</p> <p>(4) When dangerous goods included in Class 7, Radioactive Materials, are transported in an overpack and a label is required to be displayed by this Part, the overpack must be prepared in accordance with section 16(4) of the “Packaging and Transport of Nuclear Substances Regulations”.</p>



## ***“CARGO AIRCRAFT ONLY” label for lithium batteries***

It is proposed to require a “CARGO AIRCRAFT ONLY” label be placed on packages containing small lithium metal batteries that are not packed in or with equipment. This change conforms with the new packing instructions in the ICAO TIs and will allow easy identification and improved segregation of shipments containing lithium batteries that are exempted from the TDG Regulations.

### **Proposed text**

#### **4.24 Lithium battery mark**

(1) When dangerous goods that are not subject to Special provision 34 are handled, offered for transport or transported, the lithium battery mark illustrated in the appendix to this Part must be displayed.

(2) The mark must indicate the UN number, ‘UN No. 3090’ for lithium metal cells or batteries or ‘UN No. 3480’ for lithium ion cells or batteries. Where the lithium cells or batteries are contained in, or packed with, equipment, the UN number ‘UN No. 3091’ or ‘UN No. 3481’ as appropriate must be indicated. Where a package contains lithium cells or batteries assigned to different UN numbers, all applicable UN numbers must be indicated on one or more marks.

(3) Dimensions must be at least 120 mm wide x 110 mm high and the minimum width of the hatching must be 5 mm if that size mark cannot be displayed because of the irregular shape or size of the packaging the mark may be reduced, but the dimensions/line thickness must not be reduced to less than 105 mm wide x 74 mm high.

(4) If the size is reduced, every symbol, letter and number required on that mark must be reduced proportionately.



Lithium battery mark

\* Place for UN number(s)

\*\* Place for telephone number for additional information

Black: Symbol

White: Background

Red: Hatching, at least 5mm width

Size: Rectangle, at least 120 mm wide x 110 mm high

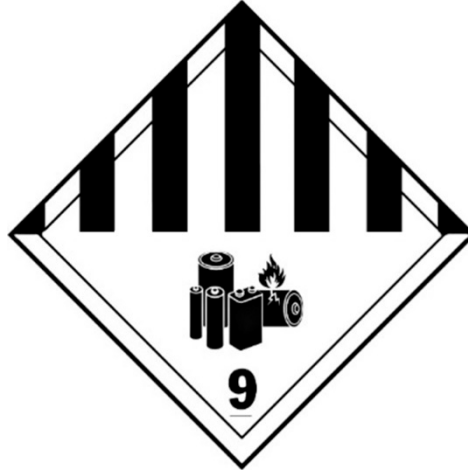
The symbol is a group of batteries, one damaged and emitting flame, above the UN number for lithium ion or lithium metal batteries or cells

## Modified Class 9 placard for lithium batteries

This amendment introduces a new Class 9 placard for lithium batteries and modifies the regulatory text under 4.10 and 4.15 to be consistent with the new international placarding requirements.

### Proposed text

#### Class 9, Lithium Batteries



Black: Symbol, number and line 5 mm inside the edge for a label and 12.5 mm inside the edge for a placard

White: Background

The symbol is 7 black stripes resulting in 13 equally spaced vertical stripes in the upper half; battery group, one broken and emitting flame in lower half

Figure "9" underlined in bottom corner

Current Text TDG Regulations	Proposed Text
<p><b>4.10 Labels on a Small Means of Containment</b></p> <p>(1) One label must be displayed on a small means of containment for the primary class and one for each subsidiary class set out in column 3 of Schedule 1 for each of the dangerous goods in transport in the small means of containment, except that</p> <p>(a) a label is not required to be displayed on a small means of containment that is inside another small means of containment if the other small means of containment has a label displayed on it and is not opened during loading or unloading or while the dangerous goods are in transport;</p> <p>(b) the oxidizing gas label, illustrated in the appendix to this Part, must be displayed on a small means of containment for the following dangerous goods:</p> <ul style="list-style-type: none"> <li>(i) UN1072, OXYGEN, COMPRESSED;</li> <li>(ii) UN1073, OXYGEN, REFRIGERATED LIQUID;</li> <li>(iii) UN3156, COMPRESSED GAS, OXIDIZING, N.O.S.; and</li> </ul>	<p><b>4.10 Labels on a Small Means of Containment</b></p> <p>(1) One label must be displayed on a small means of containment for the primary class and one for each subsidiary class set out in column 3 of Schedule 1 for each of the dangerous goods in transport in the small means of containment, except that</p> <p>(a) a label is not required to be displayed on a small means of containment that is inside another small means of containment if the other small means of containment has a label displayed on it and is not opened during loading or unloading or while the dangerous goods are in transport;</p> <p>(b) the oxidizing gas label, illustrated in the appendix to this Part, must be displayed on a small means of containment for the following dangerous goods:</p> <ul style="list-style-type: none"> <li>(i) UN1072, OXYGEN, COMPRESSED;</li> <li>(ii) UN1073, OXYGEN, REFRIGERATED LIQUID;</li> <li>(iii) UN3156, COMPRESSED GAS, OXIDIZING, N.O.S.; and</li> <li>(iv) UN3157, LIQUEFIED GAS, OXIDIZING, N.O.S.;</li> </ul>

(iv) UN3157, LIQUEFIED GAS,  
OXIDIZING, N.O.S.;

(c) if the dangerous goods are included in Class 7, Radioactive Materials, two labels must be displayed on the small means of containment for the primary class, and

(d) when the dangerous goods are included in Class 2, Gases, and are contained in a combination of cylinders each with a capacity greater than 225 L that are a single unit as a result of being interconnected through a piping arrangement, and are permanently mounted on a structural frame for transport, and have a combined capacity exceeding 450 L, the combination of cylinders may be placarded as one large means of containment.

(2) For the subsidiary class of Class 1, the label to be displayed is the label for Class 1.1, 1.2 or 1.3 illustrated in the appendix to this Part.

*The dangerous goods that have a subsidiary class of Class 1 are listed in paragraph 2.8(1)(a) in Part 2, Classification, and have "(1)" shown in column 3 of Schedule 1.*

(3) When a label is required to be displayed, it must be displayed

(a) on any side of the outer surface of a small means of containment other than the side on which it is intended to rest or to be stacked during transport;

(b) on or near the shoulder of a cylinder containing dangerous goods; or

(c) in the case of a label for dangerous goods included in Class 7, Radioactive Materials, on two opposite sides of the outer surface of a small means of containment, other than the side on which it is intended to rest or to be stacked during transport.

(4) Despite subsection (3), a label with sides that are reduced to 30 mm in length in accordance with subsection 4.7(2) may be displayed on a tag that is securely attached to a small means of containment.

(5) Despite subsection (1), a label is not required to be displayed on a small means of containment that contains a radioactive material if the shipping name and UN number of the radioactive material are displayed on the small means of containment and

(a) the radioactive material is contained in an exposure device, as defined in the "Nuclear Substances and Radiation Devices Regulations", and the small means of containment is marked in

(c) ~~(c)~~ when the dangerous goods are included in Class 2, Gases, and are contained in a combination of cylinders each with a capacity greater than 225 L that are a single unit as a result of being interconnected through a piping arrangement, and are permanently mounted on a structural frame for transport, and have a combined capacity exceeding 450 L, the combination of cylinders may be placarded as one large means of containment,

(d) ~~(d)~~ if the dangerous goods are included in Class 7, Radioactive Materials, two labels must be displayed on the small means of containment for the primary class, and

(e) the lithium battery label, illustrated in the appendix to this Part, must be displayed on a small means of containment for the following dangerous goods:

(i) UN3090, LITHIUM METAL BATTERIES;

(ii) UN3091, LITHIUM METAL BATTERIES CONTAINED IN EQUIPMENT or LITHIUM METAL BATTERIES PACKED WITH EQUIPMENT;

(iii) UN3480, LITHIUM ION BATTERIES; or

(iv) UN3481, LITHIUM ION BATTERIES CONTAINED IN EQUIPMENT or LITHIUM ION BATTERIES PACKED WITH EQUIPMENT.

(2) ~~(2)~~ When a label is required to be displayed, it must be displayed

(a) on any side of the outer surface of a small means of containment other than the side on which it is intended to rest or to be stacked during transport;

(b) on or near the shoulder of a cylinder containing dangerous goods; or

(c) in the case of a label for dangerous goods included in Class 7, Radioactive Materials, on two opposite sides of the outer surface of a small means of containment, other than the side on which it is intended to rest or to be stacked during transport.

(3) ~~(3)~~ Despite subsection (2) ~~(3)~~, a label with sides that are reduced to 30 mm in length in accordance with subsection 4.7(2) may be displayed on a tag that is securely attached to a small means of containment.

(4) ~~(4)~~ Despite subsection (1), a label is not required to be displayed on a small means of containment that contains a radioactive material if the shipping name and UN number of the radioactive material are displayed on the small means of containment and

(a) the radioactive material is contained in an

<p>accordance with paragraph 16(5)(a) of the “Packaging and Transport of Nuclear Substances Regulations”; or</p> <p>(b) the radioactive material is LSA-I material, as defined in subsection 1(1) of the “Packaging and Transport of Nuclear Substances Regulations”, and the small means of containment is marked in accordance with paragraph 16(5)(c) of the “Packaging and Transport of Nuclear Substances Regulations”.</p>	<p>exposure device, as defined in the “Nuclear Substances and Radiation Devices Regulations”, and the small means of containment is marked in accordance with paragraph 16(5)(a) of the “Packaging and Transport of Nuclear Substances Regulations”; or</p> <p>(b) the radioactive material is LSA-I material, as defined in subsection 1(1) of the “Packaging and Transport of Nuclear Substances Regulations”, and the small means of containment is marked in accordance with paragraph 16(5)(c) of the “Packaging and Transport of Nuclear Substances Regulations”.</p> <p>(5) <del>(2)</del> For the subsidiary class of Class 1, the label to be displayed is the label for Class 1.1, 1.2 or 1.3 illustrated in the appendix to this Part. <i>The dangerous goods that have a subsidiary class of Class 1 are listed in paragraph 2.8(1)(a) in Part 2, Classification, and have “(1)” shown in column 3 of Schedule 1.</i></p>
<p><b>4.15 Placards on a Large Means of Containment</b></p> <p>(1) The primary class placard for each of the dangerous goods contained in a large means of containment, other than a ship or an aircraft, must be displayed on each side and on each end of the large means of containment.</p> <p>(2) If two or more dangerous goods have different UN numbers but are identified by the same placard or placards, the placard or placards are required to be displayed only once on each side and on each end of a large means of containment.</p> <p><i>Each placard needs to be displayed only once on each side and each end of a large means of containment regardless of how many products in the large means of containment have that class (primary or subsidiary).</i></p> <p><i>For example, if UN1052, HYDROGEN FLUORIDE, ANHYDROUS (primary class 8 and subsidiary class 6.1), and UN1541, ACETONE CYANOHYDRIN, STABILIZED (class 6.1), are transported together in a truck, only 2 placards are required to be displayed on each side and on each end of the truck: the Class 8 placard (Corrosives) and the Class 6.1 placard (Toxic Substances).</i></p>	<p><b>4.15 Placards on a Large Means of Containment</b></p> <p>(1) The primary class placard for each of the dangerous goods contained in a large means of containment, other than a ship or an aircraft, must be displayed on each side and on each end of the large means of containment.</p> <p>(2) If two or more dangerous goods have different UN numbers but are identified by the same placard or placards, the placard or placards are required to be displayed only once on each side and on each end of a large means of containment</p> <p><i>Each placard needs to be displayed only once on each side and each end of a large means of containment regardless of how many products in the large means of containment have that class (primary or subsidiary).</i></p> <p><i>For example, if UN1052, HYDROGEN FLUORIDE, ANHYDROUS (primary class 8 and subsidiary class 6.1), and UN1541, ACETONE CYANOHYDRIN, STABILIZED (class 6.1), are transported together in a truck, only 2 placards are required to be displayed on each side and on each end of the truck: the Class 8 placard (Corrosives) and the Class 6.1 placard (Toxic Substances).</i></p> <p>(3) The lithium battery placard, illustrated in the appendix to this Part, must be displayed on each side and on each end of the large means of containment for the following dangerous goods:</p> <p>(a) UN3090, LITHIUM METAL BATTERIES;</p> <p>(b) UN3091, LITHIUM METAL BATTERIES CONTAINED IN EQUIPMENT or LITHIUM METAL BATTERIES</p>

	PACKED WITH EQUIPMENT; (c) UN3480, LITHIUM ION BATTERIES; or (d) UN3481, LITHIUM ION BATTERIES CONTAINED IN EQUIPMENT or LITHIUM ION BATTERIES PACKED WITH EQUIPMENT.
--	---

## Part 5 - Means of Containment

### *Aligning National Standards and Regulations*

Canada and the U.S. are continuing to harmonize their regulations in order to facilitate North American trade and increase economic competitiveness while maintaining high safety standards. Under the RCC, it is proposed to reduce regulatory duplication by allowing pressure cylinders meeting Transport Canada's or United States Department of Transportation specifications to be filled with gases such as propane and used interchangeably in both countries.

In order to reduce regulatory duplication and achieve reciprocity with the United States on pressure cylinders, UN pressure receptacles and multiples element gas containers, TC is proposing to recognize requirements under the 49CFR along with current TC requirements.

The proposed changes to the TDG Regulations are:

1. Authorize the use of all DOT and ICC cylinders regardless of date of manufacture;
2. Require that all DOT, ICC, CRC, BTC, CTC and TC specification cylinders be requalified, repaired, rebuilt, or reheat treated and subsequently marked in accordance with:
  - 49 CFR when performed in the USA;
  - CSA B339 when performed in Canada; or
  - 49 CFR or CSA B339 when performed outside of Canada and the USA;
3. Authorize DOT aerosols regardless of the country where they have been filled despite standard CGSB-43-123.

## Part 8 - Reporting Requirements

### *Dangerous Goods Occurrences*

This amendment proposes to adopt ICAO reporting requirements for dangerous goods occurrences. This amendment would require that air operators place a telephone call to CANUTEC to report dangerous goods that are discovered to have been carried when not loaded, segregated, separated or secured in accordance with the storage and loading requirements in the ICAO TIs or dangerous goods that are discovered to have been carried without the required information having been provided to the pilot-in-command. This would allow TC to monitor compliance in order to target compliance promotion and enforcement action as well as to enhance safety of air transport.

## Part 14 - Permit for Equivalent Level of Safety

### *Mutual recognition of Equivalency Certificates and US Special Permits*

Transport Canada and the United States Department of Transportation established an ongoing regulatory partnership, as outlined in the United States-Canada Regulatory Cooperation Council (RCC) *Joint Forward Plan*. The goal of the partnership is to increase regulatory cooperation and alignment between the two countries. RCC's mandate is to promote economic growth and benefits to consumers and businesses through increased regulatory transparency and coordination. Under this initiative, the U.S. Department of Transportation and Transport Canada have developed a comprehensive work plan that includes several initiatives to address areas where enhanced bilateral cooperation can improve regulatory reciprocity and promote safe and efficient cross-border transportation of hazardous materials. This plan includes a proposal to explore the mutual recognition of competent authority approvals issued by the other respective country.

In Canada, dangerous goods must be transported in accordance with the TDG Regulations. If a person wishes to carry on an activity related to transporting dangerous goods in a way that is not in compliance with the TDG Regulations, he or she must apply for an equivalency certificate and must show that the way in which the activity will be carried on will provide a level of safety equivalent to complying with the Regulations.

In the USA, hazardous materials (or dangerous goods) must be transported in accordance with the US *Hazardous Materials Regulations* (HMR). The US DOT Pipeline and Hazardous Materials Safety Administration (PHMSA) is responsible for the issuance of special permits that establish alternative requirements, or variances, to the requirements in the HMR. PHMSA issues such variances in a way that achieves a safety level that is at least equal to the safety level required under the HMR or is consistent with the public interest if a required safety level does not exist.

Transport Canada and the United States Department of Transportation and the United States Department of Transportation have a common will to mutually recognize Competent Authority Approvals issued by the other respective country. This would simplify legal requirements for consignors and carriers transporting dangerous goods from one country to the other. This desire by industry to have a mutual recognition of competent authority approvals has been expressed during a broad range of consultations.

Transport Canada is seeking views on this proposed initiative and invites stakeholders to send information on the impacts and benefits this could have on their respective industry and also on the impacts on enforcement personnel in both jurisdictions.



## Update to Schedules 1, 2 and 3 of TDG Regulations:

### Schedule 1

It is proposed to add and/or modify the following UN numbers and shipping names in Schedule 1 of the TDG Regulations to harmonize with the 19<sup>th</sup> edition of the UN Model Regulation.

Col. 1	Col. 2	Col. 3	Col. 4	Col. 5	Col. 6		Col. 7	Col. 8	Col. 9
UN Number	Shipping Name and Description	Class	Packing Group/Category	Special Provisions	6(a) Explosive Limit and Limited Quantity Index	6(b) Excepted Quantities	ERAP Index	Passenger-Carrying Ship Index	Passenger-Carrying Road Vehicle or Passenger-Carrying Railway Vehicle Index
UN0510	ROCKET MOTORS	1.4C			0	E0			Forbidden
UN1005	AMMONIA, ANHYDROUS; or ANHYDROUS AMMONIA	2.3 (8)		23 157	0	E0	3000	Forbidden	Forbidden
UN1010	BUTADIENES, STABILIZED; or BUTADIENES AND HYDROCARBON MIXTURE, STABILIZED, containing more than 40% butadienes	2.1		154	0.125 L	E0	3000		Forbidden
UN1051	HYDROGEN CYANIDE, STABILIZED, containing less than 3% water	6.1 (3)	I	23 154	0	E0	1000	Forbidden	Forbidden
UN1060	METHYLACETYLENE AND PROPADIENE MIXTURE, STABILIZED	2.1		154	0.125 L	E0	3000		Forbidden
UN1081	TETRAFLUOROETHYLENE, STABILIZED	2.1		38 154	0.125 L	E0	3000	Forbidden	Forbidden

Col. 1	Col. 2	Col. 3	Col. 4	Col. 5	Col. 6		Col. 7	Col. 8	Col. 9
UN Number	Shipping Name and Description	Class	Packing Group/Category	Special Provisions	6(a) Explosive Limit and Limited Quantity Index	6(b) Excepted Quantities	ERAP Index	Passenger-Carrying Ship Index	Passenger-Carrying Road Vehicle or Passenger-Carrying Railway Vehicle Index
UN1082	TRIFLUOROCHLOROETHYLENE, STABILIZED; or REFRIGERANT GAS R 1113	2.3 (2.1)		23 154	0	E0	500	Forbidden	Forbidden
UN1085	VINYL BROMIDE, STABILIZED	2.1		154	0.125 L	E0	3000		Forbidden
UN1086	VINYL CHLORIDE, STABILIZED	2.1		154	0.125 L	E0	3000		Forbidden
UN1087	VINYL METHYL ETHER, STABILIZED	2.1		154	0.125 L	E0	3000		Forbidden
UN1092	ACROLEIN, STABILIZED	6.1 (3)	I	23 154	0	E0	1000	Forbidden	Forbidden
UN1093	ACRYLONITRILE, STABILIZED	3 (6.1)	I	154	0	E0	1000	Forbidden	Forbidden
UN1143	CROTONALDEHYDE; or CROTONALDEHYDE, STABILIZED	6.1 (3)	I	23 154	0	E0	1000	Forbidden	Forbidden
UN1167	DIVINYL ETHER, STABILIZED	3	I	154	0	E3		Forbidden	1 L
UN1185	ETHYLENEIMINE, STABILIZED	6.1 (3)	I	23 154	0	E0	1000	Forbidden	Forbidden
UN1218	ISOPRENE, STABILIZED	3	I	154	0	E3		Forbidden	1 L
UN1246	METHYL ISOPROPENYL KETONE, STABILIZED	3	II	154	1 L	E2			5 L

Col. 1	Col. 2	Col. 3	Col. 4	Col. 5	Col. 6		Col. 7	Col. 8	Col. 9
UN Number	Shipping Name and Description	Class	Packing Group/Category	Special Provisions	6(a) Explosive Limit and Limited Quantity Index	6(b) Excepted Quantities	ERAP Index	Passenger-Carrying Ship Index	Passenger-Carrying Road Vehicle or Passenger-Carrying Railway Vehicle Index
UN1247	METHYL METHACRYLATE MONOMER, STABILIZED	3	II	154	1 L	E2			5 L
UN1251	METHYL VINYL KETONE, STABILIZED	6.1 (3) (8)	I	23 154	0	E0	1000	Forbidden	Forbidden
UN1301	VINYL ACETATE, STABILIZED	3	II	154	1 L	E2			5 L
UN1302	VINYL ETHYL ETHER, STABILIZED	3	I	154	0	E3		Forbidden	1 L
UN1303	VINYLDENE CHLORIDE, STABILIZED	3	I	154	0	E3		Forbidden	1 L
UN1304	VINYL ISOBUTYL ETHER, STABILIZED	3	II	154	1 L	E2			5 L
UN1545	ALLYL ISOTHIOCYANATE, STABILIZED	6.1 (3)	II	154	0.1 L	E0	1000	Forbidden	Forbidden
UN1589	CYANOGEN CHLORIDE, STABILIZED	2.3 (8)		23 38 154	0	E0	25	Forbidden	Forbidden
UN1614	HYDROGEN CYANIDE, STABILIZED, containing less than 3% water and absorbed in a porous inert material	6.1	I	23 38 154	0	E0	1000	Forbidden	Forbidden
UN1724	ALLYLTRICHLOROSILANE, STABILIZED	8 (3)	II	154	0	E0	3000		Forbidden

Col. 1	Col. 2	Col. 3	Col. 4	Col. 5	Col. 6		Col. 7	Col. 8	Col. 9
UN Number	Shipping Name and Description	Class	Packing Group/Category	Special Provisions	6(a) Explosive Limit and Limited Quantity Index	6(b) Excepted Quantities	ERAP Index	Passenger-Carrying Ship Index	Passenger-Carrying Road Vehicle or Passenger-Carrying Railway Vehicle Index
UN1829	SULFUR TRIOXIDE, STABILIZED; or SULPHUR TRIOXIDE, STABILIZED	8	I	23 154	0	E0	3000		Forbidden
UN1860	VINYL FLUORIDE, STABILIZED	2.1		154	0.125 L	E0	3000	Forbidden	Forbidden
UN1917	ETHYL ACRYLATE, STABILIZED	3	II	154	1 L	E2			5 L
UN1919	METHYL ACRYLATE, STABILIZED	3	II	154	1 L	E2			5 L
UN1921	PROPYLENEIMINE, STABILIZED	3 (6.1)	I	154	0	E0	1000		1 L
UN1944	MATCHES, SAFETY (book, card or strike on box)	4.1	III	69 160	5 kg	E1			25 kg
UN1945	MATCHES, WAX "VESTA"	4.1	III	69 160	5 kg	E1			25 kg
UN1991	CHLOROPRENE, STABILIZED	3 (6.1)	I	154	0	E0	1000	Forbidden	Forbidden
UN2000	CELLULOID in block, rods, rolls, sheets, tubes, etc., except scrap	4.1	III	159	5 kg	E1			25 kg
UN2055	STYRENE MONOMER, STABILIZED	3	III	154	5 L	E1			60 L
UN2200	PROPADIENE, STABILIZED	2.1		154	0	E0	3000		Forbidden
UN2218	ACRYLIC ACID, STABILIZED	8 (3)	II	154	1 L	E2			1 L

Col. 1	Col. 2	Col. 3	Col. 4	Col. 5	Col. 6		Col. 7	Col. 8	Col. 9
UN Number	Shipping Name and Description	Class	Packing Group/Category	Special Provisions	6(a) Explosive Limit and Limited Quantity Index	6(b) Excepted Quantities	ERAP Index	Passenger-Carrying Ship Index	Passenger-Carrying Road Vehicle or Passenger-Carrying Railway Vehicle Index
UN2227	n-BUTYL METHACRYLATE, STABILIZED	3	III	154	5 L	E1			60 L
UN2251	BICYCLO[2.2.1]HEPTA-2,5-DIENE, STABILIZED; or 2,5-NORBORNADIENE, STABILIZED	3	II	154	1 L	E2		Forbidden	5 L
UN2254	MATCHES, FUSEE	4.1	III	69	5 kg	E0			Forbidden
UN2277	ETHYL METHACRYLATE, STABILIZED	3	II	154	1 L	E2			5 L
UN2283	ISOBUTYL METHACRYLATE, STABILIZED	3	III	154	5 L	E1			60 L
UN2348	BUTYL ACRYLATES, STABILIZED	3	III	154	5 L	E1			60 L
UN2352	BUTYL VINYL ETHER, STABILIZED	3	II	154	1 L	E2			5 L
UN2383	DIPROPYLAMINE	3 (8)	II	154	1 L	E2	3000		1 L
UN2396	METHACRYLALDEHYDE, STABILIZED	3 (6.1)	II	154	1 L	E2	1000	Forbidden	1 L
UN2452	ETHYLACETYLENE, STABILIZED	2.1		154	0	E0	3000		Forbidden
UN2521	DIKETENE, STABILIZED	6.1 (3)	I	23 154	0	E0	1000	Forbidden	Forbidden
UN2527	ISOBUTYL ACRYLATE, STABILIZED	3	III	154	5 L	E1			60 L

Col. 1	Col. 2	Col. 3	Col. 4	Col. 5	Col. 6		Col. 7	Col. 8	Col. 9
UN Number	Shipping Name and Description	Class	Packing Group/Category	Special Provisions	6(a) Explosive Limit and Limited Quantity Index	6(b) Excepted Quantities	ERAP Index	Passenger-Carrying Ship Index	Passenger-Carrying Road Vehicle or Passenger-Carrying Railway Vehicle Index
UN2531	METHACRYLIC ACID, STABILIZED	8	II	154	1 L	E2			1 L
UN2607	ACROLEIN DIMER, STABILIZED	3	III	154	5 L	E1			60 L
UN2618	VINYLTOLUENES, STABILIZED	3	III	154	5 L	E1			60 L
UN2814	INFECTIOUS SUBSTANCE, AFFECTING HUMANS	6.2	Category A	16 38 84 164	0	E0	SeeSP84		0.05 kg
UN2815	N-AMINOETHYLPIPERAZINE	8 (6.1)	III		5 L	E1			5 L
UN2838	VINYL BUTYRATE, STABILIZED	3	II	154	1 L	E2			5 L
UN2900	INFECTIOUS SUBSTANCE, AFFECTING ANIMALS only	6.2	Category A	16 38 84 164	0	E0	SeeSP84		0.05 kg
UN2977	RADIOACTIVE MATERIAL, URANIUM HEXAFLUORIDE, FISSILE	7 (6.1) (8)			0	E0	25		Forbidden
UN2978	RADIOACTIVE MATERIAL, URANIUM HEXAFLUORIDE, non-fissile or fissile excepted	7 (6.1) (8)			0	E0	25		Forbidden
UN3022	1,2-BUTYLENE OXIDE, STABILIZED	3	II	154	1 L	E2			5 L
UN3073	VINYLPYRIDINES, STABILIZED	6.1 (3) (8)	II	154	0.1 L	E4	1000		1 L
UN3079	METHACRYLONITRILE, STABILIZED	6.1 (3)	I	23 154	0	E0	1000	Forbidden	Forbidden



Col. 1	Col. 2	Col. 3	Col. 4	Col. 5	Col. 6		Col. 7	Col. 8	Col. 9
UN Number	Shipping Name and Description	Class	Packing Group/Category	Special Provisions	6(a) Explosive Limit and Limited Quantity Index	6(b) Excepted Quantities	ERAP Index	Passenger-Carrying Ship Index	Passenger-Carrying Road Vehicle or Passenger-Carrying Railway Vehicle Index
UN3090	LITHIUM METAL BATTERIES (including lithium alloy batteries)			34 123 137 138 149 158	0	E0			5 kg
UN3091	LITHIUM METAL BATTERIES CONTAINED IN EQUIPMENT (including lithium alloy batteries); or LITHIUM METAL BATTERIES PACKED WITH EQUIPMENT (including lithium alloy batteries)	9		34 137 138 158	0	E0			5 kg
UN3151	POLYHALOGENATED BIPHENYLS, LIQUID, regulated only when the concentration is more than 50 ppm, by mass; or  HALOGENATED MONOMETHYLDIPHENYLMETHANES, LIQUID, regulated only when the concentration is more than 50 ppm, by mass; or  POLYHALOGENATED TERPHENYLS, LIQUID, regulated only when the concentration is more than 50 ppm, by mass	9	II		1 L	E2			100 L

Col. 1	Col. 2	Col. 3	Col. 4	Col. 5	Col. 6		Col. 7	Col. 8	Col. 9
UN Number	Shipping Name and Description	Class	Packing Group/Category	Special Provisions	6(a) Explosive Limit and Limited Quantity Index	6(b) Excepted Quantities	ERAP Index	Passenger-Carrying Ship Index	Passenger-Carrying Road Vehicle or Passenger-Carrying Railway Vehicle Index
UN3152	<p>POLYHALOGENATED BIPHENYLS, SOLID, regulated only when the concentration is more than 50 ppm, by mass;</p> <p>or</p> <p>HALOGENATED MONOMETHYLDIPHENYLMETHANES, SOLID, regulated only when the concentration is more than 50 ppm, by mass;</p> <p>or</p> <p>POLYHALOGENATED TERPHENYLS, SOLID, regulated only when the concentration is more than 50 ppm, by mass</p>	9	II		1 kg	E2			100 kg

Col. 1	Col. 2	Col. 3	Col. 4	Col. 5	Col. 6		Col. 7	Col. 8	Col. 9
UN Number	Shipping Name and Description	Class	Packing Group/Category	Special Provisions	6(a) Explosive Limit and Limited Quantity Index	6(b) Excepted Quantities	ERAP Index	Passenger-Carrying Ship Index	Passenger-Carrying Road Vehicle or Passenger-Carrying Railway Vehicle Index
UN3166	<del>ENGINE, INTERNAL COMBUSTION, or</del> VEHICLE, FLAMMABLE GAS POWERED, or VEHICLE, FLAMMABLE LIQUID POWERED, or <del>ENGINE, FUEL CELL, FLAMMABLE GAS POWERED, or</del> ENGINE, FUEL CELL, FLAMMABLE LIQUID POWERED, or VEHICLE, FUEL CELL, FLAMMABLE GAS POWERED, or VEHICLE, FUEL CELL, FLAMMABLE LIQUID POWERED	9		<del>67</del> 91 93 96 155 156	0	E0			Forbidden

Col. 1	Col. 2	Col. 3	Col. 4	Col. 5	Col. 6		Col. 7	Col. 8	Col. 9
UN Number	Shipping Name and Description	Class	Packing Group/Category	Special Provisions	6(a) Explosive Limit and Limited Quantity Index	6(b) Excepted Quantities	ERAP Index	Passenger-Carrying Ship Index	Passenger-Carrying Road Vehicle or Passenger-Carrying Railway Vehicle Index
UN3170	ALUMINUM REMELTING BY-PRODUCTS, including, but not limited to, aluminum dross, aluminum skimmings, spent cathodes, spent potliner and aluminum salt slags; or ALUMINUM SMELTING BY-PRODUCTS, including, but not limited to, aluminum dross, aluminum skimmings, spent cathodes, spent potliner and aluminum salt slags	4.3	II	161	0.5 kg	E2			15 kg
UN3269	POLYESTER RESIN KIT, liquid base material	3	II	141	5 L	E0			5 L
			III		5 L	E0			5 L
UN3291	CLINICAL WASTE, UNSPECIFIED, N.O.S.;  (BIO) MEDICAL WASTE, N.O.S.; or REGULATED MEDICAL WASTE, N.O.S.	6.2	II	128 <del>129</del>	0	E0			

Col. 1	Col. 2	Col. 3	Col. 4	Col. 5	Col. 6		Col. 7	Col. 8	Col. 9
UN Number	Shipping Name and Description	Class	Packing Group/Category	Special Provisions	6(a) Explosive Limit and Limited Quantity Index	6(b) Excepted Quantities	ERAP Index	Passenger-Carrying Ship Index	Passenger-Carrying Road Vehicle or Passenger-Carrying Railway Vehicle Index
UN3314	PLASTICS MOULDING COMPOUND in dough, sheet or extruded rope form evolving flammable vapour	9	III	151	5 kg	E1		Forbidden	100kg
UN3373	BIOLOGICAL SUBSTANCE, CATEGORY B	6.2	Category B	38 164 165	0	E0			4 kg
UN3480	LITHIUM ION BATTERIES (including lithium ion polymer batteries)	9		34 123 137 138 158	0	E0		5	5 kg
UN3481	LITHIUM ION BATTERIES CONTAINED IN EQUIPMENT (including lithium ion polymer batteries); or LITHIUM ION BATTERIES PACKED WITH EQUIPMENT (including lithium ion polymer batteries)	9		34 137 138 158	0	E0		5	5 kg
UN3507	URANIUM HEXAFLUORIDE, RADIOACTIVE MATERIAL, EXCEPTED PACKAGE, less than 0.1 kg per package, non-fissile or fissile excepted	8 6.1 (7) (8)	I		0	E0			

Col. 1	Col. 2	Col. 3	Col. 4	Col. 5	Col. 6		Col. 7	Col. 8	Col. 9
UN Number	Shipping Name and Description	Class	Packing Group/Category	Special Provisions	6(a) Explosive Limit and Limited Quantity Index	6(b) Excepted Quantities	ERAP Index	Passenger-Carrying Ship Index	Passenger-Carrying Road Vehicle or Passenger-Carrying Railway Vehicle Index
UN3516	ADSORBED GAS, TOXIC, CORROSIVE, N.O.S.	2.3 (8)		16 23 38 157	0	E0	25	Forbidden	Forbidden
UN3527	POLYESTER RESIN KIT, solid base material	4.1	II	152 141	5kg	E0			1kg
			III	152 141	5kg	E0			5kg
UN3528	ENGINE, INTERNAL COMBUSTION, FLAMMABLE LIQUID POWERED or ENGINE, FUEL CELL, FLAMMABLE LIQUID POWERED or MACHINERY. INTERNAL COMBUSTION, FLAMMABLE LIQUID POWERED or MACHINERY, FUEL CELL. FLAMMABLE LIQUID POWERED	3		153	0	E0			

Col. 1	Col. 2	Col. 3	Col. 4	Col. 5	Col. 6		Col. 7	Col. 8	Col. 9
UN Number	Shipping Name and Description	Class	Packing Group/Category	Special Provisions	6(a) Explosive Limit and Limited Quantity Index	6(b) Excepted Quantities	ERAP Index	Passenger-Carrying Ship Index	Passenger-Carrying Road Vehicle or Passenger-Carrying Railway Vehicle Index
UN3529	ENGINE, INTERNAL COMBUSTION, FLAMMABLE GAS POWERED or ENGINE, FUEL CELL, FLAMMABLE GAS POWERED or MACHINERY, INTERNAL COMBUSTION, FLAMMABLE GAS POWERED or MACHINERY, FUEL CELL, FLAMMABLE GAS POWERED	2.1		153	0	E0			Forbidden
UN3530	ENGINE, INTERNAL COMBUSTION or MACHINERY, INTERNAL COMBUSTION	9		153	0	E0			
UN3531	POLYMERIZING SUBSTANCE, SOLID, STABILIZED, N.O.S.	4.1	III	16 154	0	E0			10 kg
UN3532	POLYMERIZING SUBSTANCE LIQUID, STABILIZED, N.O.S.	4.1	III	16 154	0	E0			10L
UN3533	POLYMERIZING SUBSTANCE, SOLID, TEMPERATURE CONTROLLED, N.O.S.	4.1	III	16 154	0	E0			Forbidden
UN3534	POLYMERIZING SUBSTANCE, LIQUID, TEMPERATURE CONTROLLED, N.O.S.	4.1	III	16 154	0	E0			Forbidden



## Schedule 2

It is proposed to update and introduce the following special provisions applicable to lithium batteries, resin kits, engines and vehicles containing dangerous goods, radiation detectors, and polymerizing substances to harmonize with the 19<sup>th</sup> edition of the UN Model Regulation.

SP. Number <sup>3</sup>	Proposed text
93	<p>A vehicle that contains an internal combustion engine must be transported under UN3166, VEHICLE, FLAMMABLE GAS POWERED, or UN3166, VEHICLE, FLAMMABLE LIQUID POWERED, as appropriate. This shipping name applies to hybrid electric vehicles that are powered by <b>both a fuel cell and</b> an internal combustion engine <b>with <del>and by</del></b> wet batteries, sodium batteries or lithium metal or ion batteries and that are transported with the battery(ies) installed.</p> <p><b>Other vehicles which contain an internal combustion engine must be consigned under the entries UN3166 VEHICLE, FLAMMABLE GAS POWERED or UN3166 VEHICLE, FLAMMABLE LIQUID POWERED, as appropriate. These entries include hybrid electric vehicles that are 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.</b></p> <p><b>Lithium batteries must meet the requirements of 2.43.1, except when otherwise provided for in these Regulations (e.g. for prototype batteries and small production runs under special provision 123 or damaged batteries under special provision 137).</b></p> <p>UN3166</p>
151	<p>Plastic moulding compounds may be made from polystyrene, poly(methyl methacrylate) or other polymeric material.</p>
152	<p>Polyester resin kits consist of two components: a base material (either Class 3 or 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 II or III, according to the criteria of either Class 3 or 4.1, as appropriate, applied to the base material. The quantity limit shown in column 6b of schedule 1 applies to the base material.</p>
153	<p>(a) This entry applies to engines or machinery, powered by fuels classified as dangerous goods via internal combustion systems or fuel cells (e.g. combustion engines, generators, compressors, turbines, heating units, etc.), except those which are assigned under UN3166 or UN3363.</p> <p>(b) Engines or machinery which are empty of liquid or gaseous fuels and which do not contain other dangerous goods, are not subject to these Regulations.</p> <p><b>NOTE 1:</b> <i>An engine or machinery is considered to be empty of liquid fuel when the liquid fuel tank has been drained and the engine or machinery cannot be operated due to a lack of fuel. Engine or machinery components such as fuel lines, fuel filters and injectors do not need to be cleaned, drained or purged to be considered empty of liquid fuels. In addition, the liquid fuel tank does not need to be cleaned or purged.</i></p> <p><b>NOTE 2:</b> <i>An engine or machinery is considered to be empty of gaseous fuels when the gaseous fuel tanks are empty of liquid (for liquefied gases), the positive pressure in the tanks does not exceed 2 bar and the fuel shut-off or isolation valve is closed and secured.</i></p> <p>(c) Engines and machinery containing fuels meeting the classification criteria of Class 3, must be consigned under the entries UN3528 ENGINE, INTERNAL COMBUSTION, FLAMMABLE LIQUID POWERED or UN3528 ENGINE, FUEL CELL, FLAMMABLE LIQUID POWERED or UN3528 MACHINERY, INTERNAL COMBUSTION, FLAMMABLE LIQUID POWERED or UN3528 MACHINERY, FUEL CELL, FLAMMABLE LIQUID POWERED, as appropriate.</p> <p>(d) Engines and machinery containing fuels meeting the classification criteria of Division 2.1, must be consigned under the entries UN3529 ENGINE, INTERNAL COMBUSTION, FLAMMABLE GAS POWERED or UN3529 ENGINE, FUEL CELL, FLAMMABLE GAS POWERED or UN 3529 MACHINERY, INTERNAL COMBUSTION, FLAMMABLE GAS POWERED or UN3529 MACHINERY, FUEL CELL, FLAMMABLE GAS POWERED, as appropriate.</p> <p>Engines and machinery powered by both a flammable gas and a flammable liquid must be consigned under the appropriate UN No. 3529 entry.</p> <p>(e) Engines and machinery containing liquid fuels meeting the classification criteria of 2.9.3 for</p>

<sup>3</sup> Numbers are subject to change based on adoption of other proposed amendment.

SP. Number <sup>3</sup>	Proposed text
	<p>environmentally hazardous substances and not meeting the classification criteria of any other Class or Division, must be consigned under the entries UN3530 ENGINE, INTERNAL COMBUSTION or UN3530 MACHINERY, INTERNAL COMBUSTION, as appropriate.</p> <p>(f) Engines or machinery may contain other dangerous goods than fuels (e.g. batteries, fire extinguishers, compressed gas accumulators or safety devices) required for their functioning or safe operation without being subject to any additional requirements for these other dangerous goods, unless otherwise specified in these Regulations. However, lithium batteries must meet the Part 2 requirements, except when otherwise specified by these Regulations (e.g. for prototype batteries and small production runs under special provision 123 or damaged batteries under special provision 137).</p> <p>(g) The engines or machinery are not subject to any other requirements of these Regulations if the following requirements are met:</p> <p>(i) The engine or machinery, including the means of containment containing dangerous goods, must be in compliance with the construction requirements specified by the competent authority;</p> <p>(ii) Any valves or openings (e.g. venting devices) must be closed during transport;</p> <p>(iii) The engines or machinery must be oriented to prevent inadvertent leakage of dangerous goods and secured by means capable of restraining the engines or machinery to prevent any movement during transport which would change the orientation or cause them to be damaged;</p> <p>(iv) for UN3528 and UN3530:</p> <p>(A) Where the engine or machinery contains more than 60 L of liquid fuel and has a capacity of not more than 450 L, labelled in accordance with Part 4.</p> <p>(B) Where the engine or machinery contains more than 60 L of liquid fuel and has a capacity of more than 450 L but not more than 3 000 L, it must be labelled on two opposing sides in accordance with Part 4.</p> <p>(C) Where the engine or machinery contains more than 60 L of liquid fuel and has a capacity of more than 3 000 L, it must be placarded on two opposing sides in accordance with Part 4;</p> <p>(v) for UN3529:</p> <p>(A) Where the fuel tank of the engine or machinery has a water capacity of not more than 450 L, labelled in accordance with Part 4.</p> <p>(B) Where the fuel tank of the engine or machinery has a water capacity of more than 450 L but not more than 1 000 L, it must be labelled on two opposing sides in accordance with Part 4.</p> <p>(C) Where the fuel tank of the engine or machinery has a water capacity of more than 1 000 L, it must be placarded on two opposing sides in accordance with Part 4;</p> <p>A transport document in accordance with Part 3 is required, except for UN3528 and UN3530, where a transport document is only required when the engine or machinery contains more than 60 L of liquid fuels.</p>
154	<p>When substances are stabilized by temperature control, the provisions of section 7.1.6 of the UN Recommendations apply. When chemical stabilization is employed, the person offering the means of containment for transport must ensure that the level of stabilization is sufficient to prevent the substance in the means of containment from dangerous polymerization at a bulk mean temperature of 50 °C, or, in the case of a portable tank, 45 °C.</p> <p>Where chemical stabilization becomes ineffective at lower temperatures within the anticipated duration of transport, temperature control is required. In making this determination factors to be taken into consideration include, but are not limited to, the capacity and geometry of the means of containment and the effect of any insulation present, the temperature of the substance when offered for transport, the duration of the journey and the ambient temperature conditions typically encountered in the journey (considering also the season of year), the effectiveness and other properties of the stabilizer employed, applicable operational controls imposed by regulation (e.g. requirements to protect from sources of heat, including other cargo carried at a temperature above ambient) and any other relevant factors.</p> <p>UN3531, UN3532, UN3533 and UN3534</p>
155	<p>If a vehicle is powered by a flammable liquid and a flammable gas internal combustion engine, it must be assigned to UN3166 VEHICLE, FLAMMABLE GAS POWERED.</p> <p>UN3166</p>

SP. Number <sup>3</sup>	Proposed text
156	<p>Special provision UN385<sup>4</sup></p> <p>This entry applies to vehicles powered by flammable liquid or gas internal combustion engines or fuel cells. 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 batteries installed shall be consigned under this entry. Vehicles powered by wet batteries, sodium batteries, lithium metal batteries or lithium ion batteries, transported with the batteries installed, shall be consigned under the entry UN No. 3171 BATTERY-POWERED VEHICLE (see special provision 240).</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, trucks, locomotives, scooters, three- and four-wheeled vehicles or motorcycles, lawn tractors, self-propelled farming and construction equipment, boats and aircraft.</p> <p>Dangerous goods such as batteries, air bags, fire extinguishers, compressed gas accumulators, safety devices and other integral components of the vehicle that are necessary for the operation of the vehicle or for the safety of its operator or passengers, shall be securely installed in the vehicle and are not otherwise subject to these Regulations. However, lithium batteries shall meet the requirements of 2.9.4, except when otherwise specified by these Regulations (e.g. for prototype batteries and small production runs under special provision 310 or damaged batteries under special provision 376).</p> <p>UN 3171</p>
157	<p>Anhydrous ammonia adsorbed or absorbed on a solid contained in ammonia dispensing systems or receptacles intended to form part of such systems must not be subject to the other provisions of these Regulations if the following conditions are observed:</p> <ul style="list-style-type: none"> <li>(a) The adsorption or absorption presents the following properties: <ul style="list-style-type: none"> <li>(i) The pressure at a temperature of 20 °C in the receptacle is less than 60 kPa (0.6 bar);</li> <li>(ii) The pressure at a temperature of 35 °C in the receptacle is less than 100 kPa (1 bar);</li> <li>(iii) The pressure at a temperature of 85 °C in the receptacle is less than 1.2 MPa (12 bar).</li> </ul> </li> <li>(b) The adsorbent or absorbent material must not have dangerous properties listed in Classes 1 to 8;</li> <li>(c) The maximum contents of a receptacle must be 10 kg of ammonia; and</li> <li>(d) Receptacles containing adsorbed or absorbed ammonia must meet the following conditions: <ul style="list-style-type: none"> <li>(i) Receptacles must be made of a material compatible with ammonia as specified in ISO 11114-1:2012;</li> <li>(ii) Receptacles and their means of closure must be hermetically sealed and able to contain the generated ammonia;</li> <li>(iii) Each receptacle must be able to withstand the pressure generated at 85 °C with a volumetric expansion of 0.1% or less;</li> <li>(iv) Each receptacle must be fitted with a device that allows for gas evacuation once pressure exceeds 15 bar without violent rupture, explosion or projection; and</li> <li>(v) Each receptacle must be able to withstand a pressure of 2 Mpa (20 bar) without leakage when the pressure relief device is deactivated. When carried in an ammonia dispenser, the receptacles must be connected to the dispenser in such a way that the assembly is guaranteed to have the same strength as a single receptacle.</li> </ul> </li> </ul> <p>The properties of mechanical strength mentioned in this special provision must be tested using a prototype of a receptacle and/or dispenser filled to nominal capacity, by increasing the temperature until the specified pressures are reached.</p> <p>The test results must be documented, traceable and communicated to the relevant authorities upon request.</p> <p>UN1005</p>
158	<p>The label and placard to be used are the one illustrated in the appendix to Part 4 for lithium batteries. The generic Class 9 label may continue to be used until 31 December 2018.</p> <p>UN3090, UN3091, UN3480, UN3481</p>
159	<p>These Regulations, except for Part 1 (Coming into Force, Repeal, Interpretation, General Provisions and Special Cases) and Part 2 (Classification), do not apply to the handling, offering for transport or transport of table tennis balls manufactured from celluloid if the net mass of each table tennis ball is less than or equal to 3.0g and the total net mass of table tennis balls is less than or equal to 500 g per package.</p>

<sup>4</sup> 19<sup>th</sup> edition of the UN Model Regulation.

SP. Number <sup>3</sup>	Proposed text
	UN2000
160	<p>These Regulations, except for Part 1 (Coming into Force, Repeal, Interpretation, General Provisions and Special Cases), Part 2 (Classification), Part 4 (Dangerous Goods Safety Marks) and Part 5 (Means of Containment) do not apply to the handling, offering for transport or transport of safety matches and wax “Vesta” matches when the outer packaging has a net mass less than or equal to 25 kg..</p> <p>UN1944, UN1945</p>
161	<p>Before loading, these by-products must be cooled to ambient temperature, unless they have been calcined to remove moisture. Cargo transport units containing bulk loads must be adequately ventilated.</p> <p>UN3170</p>
163	<p>Special provision UN369<sup>5</sup></p> <p>In accordance with 2.0.3.2, this radioactive material in an excepted package possessing toxic and corrosive properties is classified in Division 6.1 with radioactive material and corrosivity subsidiary risks.</p> <p>Uranium hexafluoride may be classified under this entry only if the conditions of 2.7.2.4.1.2, 2.7.2.4.1.5, 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 corrosivity subsidiary risk, the provisions of 5.1.3.2, 5.1.5.2.2, 5.1.5.4.1 (b), 7.1.8.5.1 to 7.1.8.5.4 and 7.1.8.6.1 shall apply.</p> <p>No Class 7 label is required to be displayed.</p>
164	<p>Other dangerous goods must not be packed in the same packaging as Class 6.2 infectious substances unless they are necessary for maintaining the viability, stabilizing or preventing degradation or neutralizing the hazards of the infectious substances. A quantity of 30ml or less of dangerous goods included in Classes 3, 8 or 9 may be packed in each primary receptacle containing infectious substances. These small quantities of dangerous good of Classes 3, 8 or 9 are not subjected to any additional requirements of these Regulations when packed in accordance with this packing instruction.</p> <p>UN2814, UN2900 &amp; UN3373</p>
165	<p>Despite section 4.2 Misleading Dangerous Goods Safety Marks, the UN3373 certification marking indicated in CGSB-43.125-2016 may be displayed on an empty container.</p> <p>UN3373</p>
167	<p>Special provision UN385<sup>6</sup></p> <p>This entry applies to vehicles powered by flammable liquid or gas internal combustion engines or fuel cells.</p> <p>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 batteries installed shall be consigned under this entry. Vehicles powered by wet batteries, sodium batteries, lithium metal batteries or lithium ion batteries, transported with the batteries installed, shall be consigned under the entry UN No. 3171 BATTERY- POWERED VEHICLE (see special provision 240).</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, trucks, locomotives, scooters, three- and four-wheeled vehicles or motorcycles, lawn tractors, self-propelled farming and construction equipment, boats and aircraft.</p> <p>Dangerous goods such as batteries, air bags, fire extinguishers, compressed gas accumulators, safety devices and other integral components of the vehicle that are necessary for the operation of the vehicle or for the safety of its operator or passengers, shall be securely installed in the vehicle and are not otherwise subject to these Regulations However, lithium batteries shall meet the requirements of 2.9.4, except when otherwise specified by these Regulations (e.g. for prototype batteries and small production</p>

<sup>5</sup> 19<sup>th</sup> edition of the UN Model Regulation.

<sup>6</sup> 19<sup>th</sup> edition of the UN Model Regulation.

SP. Number <sup>3</sup>	Proposed text
	runs under special provision 310 or damaged batteries under special provision 376).

### Schedule 3

It is proposed to add and/or repeal entries to the schedule 3 based on the 19<sup>th</sup> edition of the UN Model Regulation.

It is also proposed to update the Marine Pollutants list to reflect the changes found in the IMDG Code 2014 and recommended by the Group of Experts on the Scientific Aspects of Marine Environmental Protection (GESAMP) criteria for marine pollutants. Harmonizing with the IMDG Code would facilitate consistent communication on the presence of marine pollutants in a shipment for more safe and efficient transportation.

Col. 1A	Col. 1B	Col. 2	Col. 3	Col. 4
Shipping or Technical Name	Appellation réglementaire ou technique	Primary Class	UN Number	Marine Pollutant
Acroleic acid, stabilized	Acide acroléique stabilisé		See UN2218	
ALDEHYDES, N.O.S.	ALDÉHYDES, N.S.A.	3	UN1989	P
ALLYL ALCOHOL	ALCOOL ALLYLIQUE	6.1	UN1098	P
Aminobenzene	Aminobenzène	6.1	See UN1547	P
AMMONIA SOLUTION, relative density between 0.880 and 0.957 at 15 °C in water, with more than 10% but not more than 35% ammonia	AMMONIAC EN SOLUTION aqueuse de densité comprise entre 0,880 et 0,957 à 15 °C contenant plus de 10 % mais au maximum 35 % d'ammoniac; ou ammoniaque	8	UN2672	P
AMMONIA SOLUTION, relative density less than 0.880 at 15 °C in water, with more than 35% but not more than 50% ammonia	AMMONIAC EN SOLUTION aqueuse de densité inférieure à 0,880 à 15 °C contenant plus de 35 % mais au maximum 50 % d'ammoniac	2.2	UN2073	P
AMMONIA SOLUTION, relative density less than 0.880 at 15 °C in water, with more than 50% ammonia	AMMONIAC EN SOLUTION aqueuse de densité inférieure à 0,880 à 15 °C contenant plus de 50 % d'ammoniac	2.3	UN3318	P
AMMONIA, ANHYDROUS	AMMONIAC ANHYDRE	2.3	UN1005	P
ANILINE	ANILINE	6.1	UN1547	P
Aniline oil	Huile d'aniline	6.1	See UN1547	P
Bleaching powder	Chlorure de chaux; ou Poudre de blanchiment	5.1	See UN2208	P
BUTYLBENZÈNES	BUTYLBENZÈNES	3	UN2709	P
CALCIUM HYPOCHLORITE MIXTURE, DRY with more than 10% but not more than 39% available chlorine	HYPOCHLORITE DE CALCIUM EN MÉLANGE SEC contenant plus de 10 % mais au maximum 39 % de chlore actif	5.1	UN2208	P
CALCIUM HYPOCHLORITE MIXTURE, DRY with more than 39% available chlorine (8.8% available oxygen)	HYPOCHLORITE DE CALCIUM SEC EN MÉLANGE contenant plus de 39 % de chlore actif (8,8 % d'oxygène actif)	5.1	UN1748	P
CALCIUM HYPOCHLORITE MIXTURE, DRY, CORROSIVE with more than 10% but not more than 39% available chlorine	HYPOCHLORITE DE CALCIUM EN MÉLANGE SEC, CORROSIF, contenant plus de 10 % mais 39 % au maximum de chlore actif	5.1	UN3486	P
CALCIUM HYPOCHLORITE MIXTURE, DRY, CORROSIVE with more than 39% available chlorine (8.8% available oxygen)	HYPOCHLORITE DE CALCIUM EN MÉLANGE SEC, CORROSIF, contenant plus de 39 % de chlore actif (8,8 % d'oxygène actif)	5.1	UN3485	P
CALCIUM HYPOCHLORITE, DRY with more than 39% available chlorine (8.8% available oxygen)	HYPOCHLORITE DE CALCIUM SEC contenant plus de 39 % de chlore actif (8,8 % d'oxygène actif)	5.1	UN1748	P

Col. 1A	Col. 1B	Col. 2	Col. 3	Col. 4
Shipping or Technical Name	Appellation réglementaire ou technique	Primary Class	UN Number	Marine Pollutant
CALCIUM HYPOCHLORITE, HYDRATED MIXTURE, CORROSIVE with not less than 5.5% but not more than 16% water	HYPOCHLORITE DE CALCIUM EN MÉLANGE HYDRATÉ, CORROSIF, avec au moins 5,5 % mais au plus 16 % d'eau	5.1	UN3487	P
CALCIUM HYPOCHLORITE, HYDRATED MIXTURE, with not less than 5.5% but not more than 16% water	HYPOCHLORITE DE CALCIUM EN MÉLANGE HYDRATÉ avec au moins 5,5 % mais au plus 16 % d'eau	5.1	UN2880	P
CALCIUM HYPOCHLORITE, HYDRATED, CORROSIVE with not less than 5.5% but not more than 16% water	HYPOCHLORITE DE CALCIUM HYDRATÉ, CORROSIF, avec au moins 5,5 % mais au plus 16 % d'eau	5.1	UN3487	P
CALCIUM HYPOCHLORITE, HYDRATED, with not less than 5.5% but not more than 16% water	HYPOCHLORITE DE CALCIUM HYDRATÉ avec au moins 5,5 % mais au plus 16 % d'eau	5.1	UN2880	P
Casinghead gasoline; Gasoline, casinghead; or Natural gasoline	Essence naturelle	3	See UN1203	P
<del>meta-Chlorotoluene</del>	<del>meta-Chlorotoluène</del>	<del>3</del>	<del>UN2238</del>	<del>P</del>
ortho-Chlorotoluene	ortho-Chlorotoluène	3	UN2238	P
<del>para-Chlorotoluene</del>	<del>para-Chlorotoluène</del>	<del>3</del>	<del>UN2238</del>	<del>P</del>
Creosote salts	Sels de créosote	4.1	See UN1334	P
CYCLOHEPTANE	CYCLOHEPTANE	3	UN2241	P
2,4-Dichlorophenol	Dichloro-2,4 phénol	6.1	UN2020	P
1,3-DICHLOROPROPENES	1,3-Dichloropropène	3	UN2047	P
Desmedipham	Desmédipham		See Note 1	P
DIMETHYL DISULFIDE	DISULFURE DE DIMÉTHYLE	3	UN2381	P
DIMETHYL DISULPHIDE	DISULFURE DE DIMÉTHYLE	3	UN2381	P
DINITROTOLUENES, LIQUID	DINITROTOLUÈNES LIQUIDES	6.1	UN2038	P
DINITROTOLUENES, MOLTEN	DINITROTOLUÈNES FONDUS	6.1	UN1600	P
DINITROTOLUENES, SOLID	DINITROTOLUÈNES SOLIDES	6.1	UN3454	P
Drazoxolon (see ORGANOCHLORINE PESTICIDE)	Drazoxolon (voir PESTICIDE ORGANOCHLORÉ)			P
<del>ENGINE, FUEL CELL, FLAMMABLE GAS POWERED</del>	<del>MOTEUR PILE À COMBUSTIBLE CONTENANT DU GAZ INFLAMMABLE</del>	<del>9</del>	<del>UN3166</del>	
ENGINE, FUEL CELL, FLAMMABLE GAS POWERED	MOTEUR PILE À COMBUSTIBLE CONTENANT DU GAZ INFLAMMABLE	2.1	UN3529	
<del>ENGINE, FUEL CELL, FLAMMABLE LIQUID POWERED</del>	<del>MOTEUR PILE À COMBUSTIBLE CONTENANT DU LIQUIDE INFLAMMABLE</del>	<del>9</del>	<del>UN3166</del>	
ENGINE, FUEL CELL, FLAMMABLE LIQUID POWERED	MOTEUR PILE À COMBUSTIBLE CONTENANT DU LIQUIDE INFLAMMABLE	3	UN3528	
<del>ENGINE, INTERNAL COMBUSTION</del>	<del>MOTEUR À COMBUSTION INTERNE</del>	<del>9</del>	<del>UN3166</del>	
ENGINE, INTERNAL COMBUSTION	MOTEUR À COMBUSTION INTERNE	9	UN3530	
ENGINE, INTERNAL COMBUSTION, FLAMMABLE GAS POWERED	MOTEUR À COMBUSTION INTERNE FONCTIONNANT AU GAZ INFLAMMABLE	2.1	UN3529	



Col. 1A	Col. 1B	Col. 2	Col. 3	Col. 4
Shipping or Technical Name	Appellation réglementaire ou technique	Primary Class	UN Number	Marine Pollutant
ENGINE, INTERNAL COMBUSTION, FLAMMABLE LIQUID POWERED	MOTEUR À COMBUSTION INTERNE FONCTIONNANT AU LIQUIDE INFLAMMABLE	3	UN3528	
Ethylene dibromide and methyl bromide mixture, liquid	Dibromure d'éthylène et bromure de méthyle en mélange liquide	6.1	See UN1647	P
HALOGENATED MONOMETHYLDIPHENYLMETHANES, LIQUID	MONOMÉTHYLDIPHÉNYLMÉTHANES HALOGÉNÉS LIQUIDES	9	UN3151	P
HALOGENATED MONOMETHYLDIPHENYLMETHANES, SOLID	MONOMÉTHYLDIPHÉNYLMÉTHANES HALÉGÉNÉS SOLIDES	9	UN3152	P
HEPTANES	HEPTANES	3	UN1206	P
HEXANE	HEXANE	3	see UN1208	P
HEXANES	HEXANES	3	UN1208	P
<del>Isodecyl diphenyl phosphate</del>	<del>Phosphate d'isodécyle et de diphenyle</del>	9	<del>See UN3082</del>	<del>P</del>
Isooctane	Isooctane	3	See UN1262	P
MACHINERY, FUEL CELL, FLAMMABLE GAS POWERED	MACHINE PILE À COMBUSTIBLE CONTENANT DU GAZ INFLAMMABLE	2.1	UN3529	
MACHINERY, FUEL CELL, FLAMMABLE LIQUID POWERED	MACHINE PILE À COMBUSTIBLE CONTENANT DU LIQUIDE INFLAMMABLE	3	UN3528	
MACHINERY, INTERNAL COMBUSTION	MACHINE À COMBUSTION INTERNE	9	UN3530	
MACHINERY, INTERNAL COMBUSTION, FLAMMABLE GAS POWERED	MACHINE À COMBUSTION INTERNE FONCTIONNANT AU GAZ INFLAMMABLE	2.1	UN3529	
MACHINERY, INTERNAL COMBUSTION, FLAMMABLE LIQUID POWERED	MACHINE À COMBUSTION INTERNE FONCTIONNANT AU LIQUIDE INFLAMMABLE	3	UN3528	
Mesitylene	Mésitylène	3	See UN2325	P
Methyl disulfide	Disulfure de méthyle	3	See UN2381	P
Methyl disulphide	Disulfure de méthyle	3	See UN2381	P
Methyldinitrobenzenes, liquid	Méthyldinitrobenzènes liquides	6.1	See UN2038	P
Methyldinitrobenzenes, molten	Méthyldinitrobenzènes fondus	6.1	See UN1600	P
Methyldinitrobenzenes, solid	Méthyldinitrobenzènes solides	6.1	See UN3454	P
Methyldithiomethane	Méthyldithiométhane	3	See UN2381	P
2-Methylheptane	Méthyl-2 heptane	3	See UN1262	P
2-Methylpentanes	Méthyl-2 pentane	3	See UN1208	P
2-Methyl-2-phenylpropane	Méthyl-2 phényl-2 propane	3	See UN2709	P
Nabam	Nabame		See Note 1	P
NAPHTHALENE, CRUDE	NAPHTALÈNE BRUT	4.1	UN1334	P



Col. 1A	Col. 1B	Col. 2	Col. 3	Col. 4
Shipping or Technical Name	Appellation réglementaire ou technique	Primary Class	UN Number	Marine Pollutant
NAPHTHALENE, MOLTEN	NAPHTALÈNE FONDU	4.1	UN2304	P
NAPHTHALENE, REFINED	NAPHTALÈNE RAFFINÉ	4.1	UN1334	P
NONANES	NONANES	3	UN1920	P
OCTANES	OCTANES	3	UN1262	P
Oxamyl (see CARBAMATE PESTICIDE)	Oxamyl (voir CARBAMATE PESTICIDE)			P
<i>alpha</i> -PINENE	<i>alpha</i> -PINÈNE	3	UN2368	P
Phenylamine	Phénylamine	6.1	See UN1547	P
1-Phenylbutane	Phényl-1 butane	3	See UN2709	P
2-Phenylbutane	Phényl-2 butane	3	See UN2709	P
2-Phenylpropene	Phényl-2 propène	3	See UN2303	P
PINE OIL	HUILE DE PIN	3	UN1272	P
POLYESTER RESIN KIT, <i>liquid base material</i>	TROUSSE DE RÉSINE POLYESTER, <i>constituant de base liquide</i>	3	UN3269	
POLYESTER RESIN KIT, <i>solid base material</i>	TROUSSE DE RÉSINE POLYESTER, <i>constituant de base solide</i>	4.1	UN3527	
POLYMERIZING SUBSTANCE LIQUID, STABILIZED, N.O.S.	MATIÈRE LIQUIDE QUI POLYMÉRISE, STABILISÉE, N.S.A	4.1	UN3532	
POLYMERIZING SUBSTANCE, LIQUID, TEMPERATURE CONTROLLED, N.O.S.	MATIÈRE SOLIDE QUI POLYMÉRISE, AVEC RÉGULATEUR DE TEMPÉRATURE, N.S.A	4.1	UN3534	
POLYMERIZING SUBSTANCE, SOLID, STABILIZED, N.O.S.	MATIÈRE SOLIDE QUI POLYMÉRISE, STABILISÉE, N.S.A	4.1	UN3531	
POLYMERIZING SUBSTANCE, SOLID, TEMPERATURE CONTROLLED, N.O.S.	MATIÈRE SOLIDE QUI POLYMÉRISE, AVEC RÉGULATEUR DE TEMPÉRATURE, N.S.A	4.1	UN3533	
Propenoic acid, stabilized	Acide propénoïque stabilisé	8	See UN2218	P
PROPYLENE TETRAMER	TÉTRAPROPYLÈNE	3	UN2850	P
ROCKET MOTORS	PROPULSEURS	1.4C	UN0510	
sec-Butylbenzène	sec-Butyl benzene	3	See UN2709	P
Sodium hypochlorite solution	Hypochlorite de sodium en solution	8	See UN1791	P
TOLUIDINES, LIQUID	TOLUIDINES LIQUIDES	6.1	UN1708	P
TOLUIDINES, SOLID	TOLUIDINES SOLIDES	6.1	UN3451	P
<i>Tolyl-phosphate</i>	<i>Phosphate de tolyle</i>	<i>6.1</i>	<i>See UN2574</i>	<i>P</i>
1,3,5-TRIMETHYLBENZENE	TRIMÉTHYL-1,3,5 BENZÈNE	3	UN2325	P
2,2,4-Trimethylpentane	Triméthyl-2,2,4 pentane	3	See UN1262	P
TURPENTINE	ESSENCE DE TÉRÉBENTHINE	3	UN1299	P

<i>Col. 1A</i>	<i>Col. 1B</i>	<i>Col. 2</i>	<i>Col. 3</i>	<i>Col. 4</i>
<i>Shipping or Technical Name</i>	<i>Appellation réglementaire ou technique</i>	<i>Primary Class</i>	<i>UN Number</i>	<i>Marine Pollutant</i>
ZINC CHLORIDE, ANHYDROUS	CHLORURE DE ZINC ANHYDRE	8	UN2331	P
ZINC CHLORIDE SOLUTION	CHLORURE DE ZINC EN SOLUTION	8	UN1840	P

# Consequential amendment the National Standard of Canada CAN/CGSB-43.125 revision

The following changes are consequential to the new edition of the CAN/CGSB-43.125 standard. The revised standard proposes the following :

- New names for the different packaging type,
- Packaging requirements aligned with UN18th;
- Bring back the performance requirements into the standard where they belong and out of Part 5 of the TDG Regulations ,
- Testing relaxation for road transport (95 kPa Internal Pressure test) as internal pressure changes in ground transport is negligible compared to Air;
- Introducing provisions to allow the use of large packagings harmonized with UN.

Provision	Current Text TDG Regulations	Proposed Text
1.3(2)(j)(ii)	<p><b>(ii)</b> all other means of containment containing it and the means of containment itself are removed, some of the dangerous goods it contains would no longer be in a means of containment that is in compliance with the Act and these Regulations for the purposes of handling, offering for transport or transporting;</p> <p><i>A railway boxcar containing propane in one or more cylinders would not be the minimum required means of containment for that propane because, if the railway boxcar (plus any means of containment containing the boxcar) were removed, the propane would still be in means of containment in compliance with the Act and the Regulations.</i></p> <p><i>Another example is dangerous goods contained in a combination packaging that is in compliance with the Act and the Regulations, such as a Type 1A means of containment for infectious substances. The outer packaging is the minimum required means of containment because, if it and all means of containment containing it were removed, the dangerous goods would no longer be in means of containment in compliance with the Act and these Regulations.</i></p> <p><i>In most cases, the identification of the minimum required means of containment is obvious. The only situations in which it is not immediately obvious are situations involving "nested" means of containment, that is, where a first means of containment is contained in a second means of containment which may be contained in a third means of containment, and so on.</i></p> <p><i>The identification of the minimum required means of containment is essential in determining gross mass. It is also useful in some situations to clarify when dangerous goods safety marks do not need to be displayed on means of containment inside the minimum required means of containment. See the definition of "gross mass", which is relevant in</i></p>	<p><b>(ii)</b> all other means of containment containing it and the means of containment itself are removed, some of the dangerous goods it contains would no longer be in a means of containment that is in compliance with the Act and these Regulations for the purposes of handling, offering for transport or transporting;</p> <p><i>A railway boxcar containing propane in one or more cylinders would not be the minimum required means of containment for that propane because, if the railway boxcar (plus any means of containment containing the boxcar) were removed, the propane would still be in means of containment in compliance with the Act and the Regulations.</i></p> <p><i>Another example is dangerous goods contained in a combination packaging that is in compliance with the Act and the Regulations, such as a <del>Type 1A</del> Type P620 means of containment for infectious substances. The outer packaging is the minimum required means of containment because, if it and all means of containment containing it were removed, the dangerous goods would no longer be in means of containment in compliance with the Act and these Regulations.</i></p> <p><i>In most cases, the identification of the minimum required means of containment is obvious. The only situations in which it is not immediately obvious are situations involving "nested" means of containment, that is, where a first means of containment is contained in a second means of containment which may be contained in a third means of containment, and so on.</i></p> <p><i>The identification of the minimum required means of containment is essential in determining gross mass. It is also useful in some situations to clarify when dangerous goods safety marks do not need to be displayed on means of containment inside the minimum required means of containment. See the definition of "gross mass", which is relevant in</i></p>

Provision	Current Text TDG Regulations	Proposed Text										
	sections 1.6, 1.15, 1.16, 1.17, 1.19.1, 1.19.2, 1.29 and 7.1.	sections 1.6, 1.15, 1.16, 1.17, 1.19.1, 1.19.2, 1.29 and 7.1.										
1.41(b)(i)	(i) that is a Type 1B means of containment, or	(i) that is a Type <del>1B</del> P650 means of containment, or										
1.42(2)(a)	(a) that is a Type 1B means of containment or Type 1C means of containment; or	(a) that is a Type <del>1B</del> -P650 means of containment or <del>Type 1C means of containment</del> a means of containment that is in compliance with the requirements in Part 3 of CGSB-43.125; or										
1.42.2(2)(a)	(a) that is a Type 1B means of containment or Type 1C means of containment; or	(a) that is a Type <del>1B</del> P650 means of containment or <del>Type 1C means of containment</del> a means of containment that is in compliance with the requirements in Part 3 of CGSB-43.125; or										
5.6(a)(i)	(i) sections 2, 3, 4 and 7 of CGSB-43.125,	(i) sections 2 and, 3, <del>4 and 7</del> and Part 1 of CGSB-43.125 for a Type P620 means of containment,										
5.16 (1)	<p>(1) A person must handle, offer for transport or transport dangerous goods included in Category A or Category B of Class 6.2, Infectious Substances, in a means of containment listed for them in column 2, 3 or 4 of the table to this section.</p> <p><i>Type 1A, 1B and 1C means of containment are defined in Part 1, Coming into Force, Interpretation, General Provisions and Special Cases.</i></p>	<p>(1) A person must <b>not</b> handle, offer for transport or transport dangerous goods included in Category A or Category B of Class 6.2, Infectious Substances, in a means of containment <del>listed for them in column 2, 3 or 4 of the table to this section</del> unless it is manufactured, selected and used in accordance with CGSB-43.125.</p> <p><i>When the means of containment is made available as a kit, the packaging manufacturer and subsequent distributor must provide the packaging information listed in section 4.4 of CGSB-43.125 to the packaging purchaser at each initial purchase and to a packaging user upon request.</i></p> <p><i>Type <del>1A</del>P620, <del>1B</del> and <del>1C</del> P650 means of containment are defined in Part 1, Coming into Force, Interpretation, General Provisions and Special Cases.</i></p>										
5.16 (2)	(2) Despite subsection (1), a Type 1A means of containment may be used in all cases.	Subsection 5.16 (2) to be repealed. <del>(2) Despite subsection (1), a Type 1A means of containment may be used in all cases.</del>										
5.16 Table	<table border="1"> <thead> <tr> <th>Item</th> <th>Column 1 Category</th> <th>Column 2 Means of containment for cultures</th> <th>Column 3 Means of containment for biological substances</th> <th>Column 4 Means of containment for infectious substances intended for disposal</th> </tr> </thead> <tbody> <tr> <td>1.</td> <td>Category A</td> <td><del>1A</del>P620</td> <td> <del>1B</del> P650 except for the following substances which must be contained in a <del>1A</del>-P620 means of containment: <ul style="list-style-type: none"> <li>(a) Crimean-Congo Hemorrhagic fever virus;</li> <li>(b) Ebola virus;</li> <li>(c) Flexal virus;</li> <li>(d) Guanarito virus;</li> <li>(e) Hantaviruses causing hemorrhagic fever with renal syndrome;</li> <li>(f) Hantaviruses causing</li> </ul> </td> <td> <del>1C</del> a means of containment manufactured, selected and used in accordance with CGSB-43.125 except for the following substances which must be contained in a <del>1A</del> P620 means of containment: <ul style="list-style-type: none"> <li>(a) Crimean-Congo Hemorrhagic fever virus;</li> <li>(b) Ebola virus;</li> <li>(c) Flexal virus;</li> <li>(d) Guanarito virus;</li> <li>(e) Hantaviruses causing hemorrhagic fever with renal</li> </ul> </td> </tr> </tbody> </table>	Item	Column 1 Category	Column 2 Means of containment for cultures	Column 3 Means of containment for biological substances	Column 4 Means of containment for infectious substances intended for disposal	1.	Category A	<del>1A</del> P620	<del>1B</del> P650 except for the following substances which must be contained in a <del>1A</del> -P620 means of containment: <ul style="list-style-type: none"> <li>(a) Crimean-Congo Hemorrhagic fever virus;</li> <li>(b) Ebola virus;</li> <li>(c) Flexal virus;</li> <li>(d) Guanarito virus;</li> <li>(e) Hantaviruses causing hemorrhagic fever with renal syndrome;</li> <li>(f) Hantaviruses causing</li> </ul>	<del>1C</del> a means of containment manufactured, selected and used in accordance with CGSB-43.125 except for the following substances which must be contained in a <del>1A</del> P620 means of containment: <ul style="list-style-type: none"> <li>(a) Crimean-Congo Hemorrhagic fever virus;</li> <li>(b) Ebola virus;</li> <li>(c) Flexal virus;</li> <li>(d) Guanarito virus;</li> <li>(e) Hantaviruses causing hemorrhagic fever with renal</li> </ul>	
Item	Column 1 Category	Column 2 Means of containment for cultures	Column 3 Means of containment for biological substances	Column 4 Means of containment for infectious substances intended for disposal								
1.	Category A	<del>1A</del> P620	<del>1B</del> P650 except for the following substances which must be contained in a <del>1A</del> -P620 means of containment: <ul style="list-style-type: none"> <li>(a) Crimean-Congo Hemorrhagic fever virus;</li> <li>(b) Ebola virus;</li> <li>(c) Flexal virus;</li> <li>(d) Guanarito virus;</li> <li>(e) Hantaviruses causing hemorrhagic fever with renal syndrome;</li> <li>(f) Hantaviruses causing</li> </ul>	<del>1C</del> a means of containment manufactured, selected and used in accordance with CGSB-43.125 except for the following substances which must be contained in a <del>1A</del> P620 means of containment: <ul style="list-style-type: none"> <li>(a) Crimean-Congo Hemorrhagic fever virus;</li> <li>(b) Ebola virus;</li> <li>(c) Flexal virus;</li> <li>(d) Guanarito virus;</li> <li>(e) Hantaviruses causing hemorrhagic fever with renal</li> </ul>								

Provision	Current Text TDG Regulations			Proposed Text	
				pulmonary syndrome; (g) Hendra virus; (h) Herpes B virus (Cercopithecine Herpesvirus-1) (i) Junin virus; (j) Kyasanur Forest virus; (k) Lassa virus; (l) Machupo virus; (m) Marburg virus; (n) Monkeypox virus; (o) Nipah virus; (p) Omsk hemorrhagic fever virus; (q) Russian Spring-summer encephalitis virus (r) Sabia virus; and (s) Variola (smallpox virus).	syndrome; (f) Hantaviruses causing pulmonary syndrome; (g) Hendra virus; (h) Herpes B virus (Cercopithecine Herpesvirus-1) (i) Junin virus; (j) Kyasanur Forest virus; (k) Lassa virus; (l) Machupo virus; (m) Marburg virus; (n) Monkeypox virus; (o) Nipah virus; (p) Omsk hemorrhagic fever virus; (q) Russian Spring-summer encephalitis virus (r) Sabia virus; and (s) Variola (smallpox virus).
	2.	Category B	<del>BP650</del>	<del>BP650</del>	<del>a means of containment manufactured, selected and used in accordance with CGSB-43.125</del>
5.16.1	<b>5.16.1 Additional Requirements for Type 1B Means of Containment</b>  A Type 1B means of containment must be <ul style="list-style-type: none"> <li>(a) capable of passing               <ul style="list-style-type: none"> <li>(i) for liquid substances, the internal pressure test set out in section 4.4 of CGSB-43.125, and</li> <li>(ii) the drop test set out in section 4.5 of CGSB-43.125 except that the height of the drop test may be 1.2 m;</li> </ul> </li> <li>(b) in compliance with clause 4.2.1(iii) of CGSB-43.125 regarding the requirements for multiple primary means of containment in a single secondary means of containment except that only fragile primary means of containment must be separated or wrapped individually; and</li> <li>(c) in compliance with the requirements in section 4.2.2.1 of CGSB-43.125 when it contains a means of cooling the contents.</li> </ul>			<b>Section 5.16.1 to be repealed.</b> <b>These technical requirements have been included in CGSB-43.125-2016.</b> <del>5.16.1 Additional Requirements for Type 1B Means of Containment</del> <del>SOR/2008-34</del> <del>A Type 1B means of containment must be</del> <ul style="list-style-type: none"> <li><del>(a) capable of passing</del></li> <li><del>(i) for liquid substances, the internal pressure test set out in section 4.4 of CGSB-43.125, and</del></li> <li><del>(ii) the drop test set out in section 4.5 of CGSB-43.125 except that the height of the drop test may be 1.2 m;</del></li> <li><del>(b) in compliance with clause 4.2.1(iii) of CGSB-43.125 regarding the requirements for multiple primary means of containment in a single secondary means of containment except that only fragile primary means of containment must be separated or wrapped individually; and</del></li> <li><del>(c) in compliance with the requirements in section 4.2.2.1 of CGSB-43.125 when it contains a means of cooling the contents.</del></li> </ul>	
5.16.2	<b>5.16.2 Medical or Clinical Waste</b>			Section 5.16.2 to be repealed.	

Provision	Current Text TDG Regulations	Proposed Text
	<p><b>SOR/2014-306</b></p> <p>A person must not handle, offer for transport or transport dangerous goods that are UN3291, (BIO) MEDICAL WASTE, N.O.S. of Class 6.2, Infectious Substances, unless the dangerous goods are in a type 1C means of containment that is in compliance with CGSB-43.125.</p>	<p>These technical criterion have been included in CGSB-43.125-2016.</p> <p><b>5.16.2 Medical or Clinical Waste</b></p> <p><del>A person must not handle, offer for transport or transport dangerous goods that are UN3291, (BIO) MEDICAL WASTE, N.O.S. of Class 6.2, Infectious Substances, unless the dangerous goods are in a type 1C means of containment that is in compliance with CGSB-43.125.</del></p>
Special Provision 129	<p><b>Special provision 129</b></p> <p><b>Regulation Description:</b></p> <p>These dangerous goods must be in a means of containment that is in compliance with Packing Instruction P621, IBC620 or LP621 of the UN Recommendations.</p> <p><b>Applicable UN Numbers:</b></p> <p><i>UN3291</i></p>	<p>This Special Provision is no longer required has per changes in the CGSB-43.125-2016 to harmonize with other technical standards.</p> <p><del><b>Special provision 129</b></del></p> <p><del><b>Regulation Description:</b></del></p> <p><del>These dangerous goods must be in a means of containment that is in compliance with Packing Instruction P621, IBC620 or LP621 of the UN Recommendations.</del></p> <p><del><b>Applicable UN Numbers:</b></del></p> <p><del><i>UN3291</i></del></p>

## Administrative Changes

This amendment also proposes to correct typographical and minor miscellaneous changes to improve clarity and readability of the TDG Regulations.

Provision	Current Text TDG Regulations	Proposed Text									
1.3.1		<table border="1"> <thead> <tr> <th>Item</th> <th>Column 1</th> <th>Column 2</th> </tr> </thead> <tbody> <tr> <td></td> <td>Short Form</td> <td>Safety Standard or Safety Requirement</td> </tr> <tr> <td>1 (22)</td> <td>ASTM Corrosion Test</td> <td>ASTM G 31-72, "Standard Practice for Laboratory Immersion Corrosion Testing of Metals", May 30, 1972, as reapproved in 1995, published by the American Society for Testing and Materials (ASTM)</td> </tr> </tbody> </table>	Item	Column 1	Column 2		Short Form	Safety Standard or Safety Requirement	1 (22)	ASTM Corrosion Test	ASTM G 31-72, "Standard Practice for Laboratory Immersion Corrosion Testing of Metals", May 30, 1972, as reapproved in 1995, published by the American Society for Testing and Materials (ASTM)
Item	Column 1	Column 2									
	Short Form	Safety Standard or Safety Requirement									
1 (22)	ASTM Corrosion Test	ASTM G 31-72, "Standard Practice for Laboratory Immersion Corrosion Testing of Metals", May 30, 1972, as reapproved in 1995, published by the American Society for Testing and Materials (ASTM)									
1.3(2)(d)(iv)	<p><b>(iv)</b> for solutions and mixtures, followed by the word "SOLUTION" or "MIXTURE", as appropriate, and may include the concentration of the solution or mixture;</p> <p><i>Examples are ACETONE SOLUTION or ACETONE 75% SOLUTION.</i></p>	<p><b>(iv)</b> for solutions and mixtures, followed by the word "SOLUTION", <del>or</del> "MIXTURE" <del>or</del> "WASTE", as appropriate, and may include the concentration of the solution or mixture;</p> <p><i>Examples are ACETONE SOLUTION <del>or</del>, ACETONE 75% SOLUTION or WASTE NITRIC ACID.</i></p>									

Provision	Current Text TDG Regulations	Proposed Text
1.35	<b>1.35 UN1202, DIESEL FUEL, or UN1203, GASOLINE, Exemption</b>  Part 3 (Documentation), the UN number requirements in section 4.15 of Part 4 (Dangerous Goods Safety Marks), and Part 6 (Training) do not apply to the handling, offering for transport or transporting on a road vehicle of dangerous goods that are UN1202, DIESEL FUEL or UN1203, GASOLINE, if:	<b>1.35 UN1202, DIESEL FUEL, or UN1203, GASOLINE, Exemption</b>  Part 3 (Documentation), the UN number requirements in section <b>4.12 and 4.15.2</b> of Part 4 (Dangerous Goods Safety Marks), and Part 6 (Training) do not apply to the handling, offering for transport or transporting on a road vehicle of dangerous goods that are UN1202, DIESEL FUEL or UN1203, GASOLINE, if:
1.44(d)(i)	<b>(i)</b> la classe primaire de chaque résidu suivie de la mention « fût(s) de résidu » ou « Residue Drum(s) » lorsque la classe primaire peut être raisonnablement déterminée, précédée du nombre de fûts contenant des marchandises dangereuses de cette classe primaire, <i>Exemple : 14 fûts de résidu classe 3 1 fût de résidu classe 8</i>	<b>(i)</b> la classe primaire de chaque résidu suivie de la mention « fût(s) de résidu » ou « Residue Drum(s) » lorsque la classe primaire peut être raisonnablement déterminée, précédée du nombre de fûts contenant des marchandises dangereuses de cette classe primaire, <i>Exemple :</i> <i>Classe 3, 14 fûts de résidu <del>classe 3</del></i> <i>Classe , 1 fût de résidu <del>classe 8</del></i>
2.24(b)(iii)(E)(v)	<b>2.24 Divisions</b> <b>(E)</b> they cause damage to the eyes, or <b>(iv)</b> are in the list of currently assigned organic peroxides in section 2.5.3.2.4 of Chapter 2.5 of the UN Recommendations.	<b>Change to be done in the English version only</b> <b>2.24 Divisions</b> <b>(E)</b> they cause damage to the eyes, or <b>(iv)</b> are in the list of currently assigned organic peroxides in section 2.5.3.2.4 of Chapter 2.5 of the UN <del>Recommendations.</del> <del>Recommendations.</del>
2.43.1(2)(d)	<b>(d)</b> each battery containing cells or a series of cells connected in parallel is equipped with diodes, fuses or other devices that prevent reverse current flow.	<b>(d)</b> each battery containing cells or a series of cells connected in parallel is equipped with diodes, fuses or other devices that prevent <b>dangerous</b> reverse current flow.
4.19(3)	<b>(3)</b> Despite paragraph (2)(b), if a compartmentalized large means of containment contains UN3475, ETHANOL AND GASOLINE MIXTURE, the UN number “3475” must be displayed, in addition to the UN number of the dangerous goods with the lowest flash point, on each side and on each end of the compartmentalized large means of containment.	<b>(3)</b> Despite paragraph (2)(b), if a compartmentalized large means of containment contains UN3475, ETHANOL AND GASOLINE MIXTURE, the UN number “ <del>UN</del> 3475” must be displayed, in addition to the UN number of the dangerous goods with the lowest flash point, on each side and on each end of the compartmentalized large means of containment.
9.1(b)	<b>(b)</b> the person complies with the following sections in Part 3, Documentation: <b>(i)</b> section 3.2, Carrier Responsibilities, <b>(ii)</b> section 3.7, Location of a Shipping Document: Road, and <b>(iii)</b> section 3.10, Location of a Shipping Document: Storage in the Course of Transportation, and	<b>(b)</b> the person complies with the following sections in Part 3, Documentation: <b>(i)</b> section 3.2, Carrier Responsibilities, <b>(ii) section 3.6.1, Consignor’s Certification</b> <del>(iii)</del> <b>(iii)</b> section 3.7, Location of a Shipping Document: Road, and <del>(iv)</del> <b>(iv)</b> section 3.10, Location of a Shipping Document: Storage in the Course of Transportation, and
10.1b(ii)	<b>(b)</b> the person complies with the following sections in Part 3, Documentation: <b>(i)</b> section 3.2, Carrier Responsibilities, <b>(ii)</b> section 3.8, Location of a Shipping Document and Consist: Rail, and <b>(iii)</b> section 3.10, Location of a Shipping Document: Storage in the Course of Transportation, and	<b>(b)</b> the person complies with the following sections in Part 3, Documentation: <b>(i)</b> section 3.2, Carrier Responsibilities, <b>(ii) section 3.6.1, Consignor’s Certification</b> <b>(iii)</b> section 3.8, Location of a Shipping Document and Consist: Rail, and <del>(iv)</del> <b>(iv)</b> section 3.10, Location of a Shipping Document: Storage in the Course of Transportation, and



Provision	Current Text TDG Regulations	Proposed Text
11.1(2)(a)	<p><b>(a)</b> the following provisions in Part 3, Documentation:</p> <ul style="list-style-type: none"> <li><b>(i)</b> section 3.2, Carrier Responsibilities,</li> <li><b>(ii)</b> subsection 3.4(1), Legibility and Language,</li> <li><b>(iii)</b> paragraph 3.5(1)(f) and subsection 3.5(2), concerning a 24-hour number on a shipping document,</li> <li><b>(iv)</b> section 3.9, Location of a Shipping Document: Marine, and</li> <li><b>(v)</b> section 3.10, Location of a Shipping Document: Storage in the Course of Transportation;</li> </ul>	<p><b>(a)</b> the following provisions in Part 3, Documentation:</p> <ul style="list-style-type: none"> <li><b>(i)</b> section 3.2, Carrier Responsibilities,</li> <li><b>(ii)</b> subsection 3.4(1), Legibility and Language,</li> <li><b>(iii)</b> paragraph 3.5(1)(f) and subsection 3.5(2), concerning a 24-hour number on a shipping document,</li> <li><b>(iv) section 3.6.1, Consignor's Certification ,</b></li> <li><b>(iv)</b> section 3.9, Location of a Shipping Document: Marine, and</li> <li><b>(vi)</b> section 3.10, Location of a Shipping Document: Storage in the Course of Transportation;</li> </ul>
12.1(1)(c)	<p><b>(c)</b> in Part 3, Documentation,</p> <ul style="list-style-type: none"> <li><b>(i)</b> section 3.1, Consignor Responsibilities,</li> <li><b>(ii)</b> subsections 3.2(1), (2), (3), (5) and (6), Carrier Responsibilities,</li> <li><b>(iii)</b> subsection 3.4(1), Legibility and Language,</li> <li><b>(iv)</b> paragraph 3.5(1)(f) and subsection 3.5(2), concerning a 24-hour number on a shipping document,</li> <li><b>(v)</b> subsections 3.6(1) and (2), which require the emergency response assistance plan reference number and telephone number on a shipping document, and</li> <li><b>(vi)</b> section 3.11, Keeping Shipping Document Information;</li> </ul>	<p><b>(c)</b> in Part 3, Documentation,</p> <ul style="list-style-type: none"> <li><b>(i)</b> section 3.1, Consignor Responsibilities,</li> <li><b>(ii)</b> subsections 3.2(1), (2), (3), (5) and (6), Carrier Responsibilities,</li> <li><b>(iii)</b> subsection 3.4(1), Legibility and Language,</li> <li><b>(iv)</b> paragraph 3.5(1)(f) and subsection 3.5(2), concerning a 24-hour number on a shipping document,</li> <li><b>(v)</b> subsections 3.6(1) and (2), which require the emergency response assistance plan reference number and telephone number on a shipping document, <del>and</del></li> <li><b>(vi) section 3.6.1, Consignor's Certification, and</b></li> <li><b>(vii)</b> section 3.11, Keeping Shipping Document Information;</li> </ul>
Special provision 123	<p><b>Changes to be made in the French version only</b></p> <p>(2)Malgré l'alinéa (1)b), les batteries ayant une masse totale de 12 kg ou plus et un boîtier extérieur solide et résistant aux chocs, ou les ensembles de ces batteries, peuvent être placées dans des contenants extérieurs ou des enveloppes protectrices conçus, construits, remplis, obturés, arrimés et entretenus de façon à empêcher, dans des conditions normales de transport, y compris la manutention, tout rejet des marchandises dangereuses qui pourraient présenter un danger pour la sécurité publique. Les batteries, ou les ensembles de batteries, doivent être protégées contre les courts-circuits.</p>	<p><b>Changes to be made in the French version only</b></p> <p>(2)Malgré l'alinéa (1)b), les batteries ayant une masse totale de 12 kg ou plus et un boîtier <del>extérieur</del> intérieur solide et résistant aux chocs, ou les ensembles de ces batteries, peuvent être placées dans des contenants extérieurs ou des enveloppes protectrices conçus, construits, remplis, obturés, arrimés et entretenus de façon à empêcher, dans des conditions normales de transport, y compris la manutention, tout rejet des marchandises dangereuses qui pourraient présenter un danger pour la sécurité publique. Les batteries, ou les ensembles de batteries, doivent être protégées contre les courts-circuits.</p>
1.3.1	<p>ASTM D 1200-94, « Standard Test Method for Viscosity by Ford Viscosity Cup », le 15 août 1994, publiée par l'American Society for Testing and Materials (ASTM)</p>	<p><b>Repeal this standard</b></p> <p><del>ASTM D 1200-94, « Standard Test Method for Viscosity by Ford Viscosity Cup », le 15 août 1994, publiée par l'American Society for Testing and Materials (ASTM)</del></p>