

Transportation of Dangerous Goods



TDG Bulletin

Means of Containment

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This bulletin explains the Means of Containment requirements. It does not change, create, amend or suggest deviations to the Transportation of Dangerous Goods (TDG) Regulations. For specific details, consult Part 5 of the TDG Regulations.

Means of Containment

Overview

The Transportation of Dangerous Goods (TDG) Act, Regulations and standards require dangerous goods to be contained in a safe means of containment. A safe means of containment is designed to prevent the release of dangerous goods that could constitute a danger to life, health, property or the environment under normal conditions of transport. A means of containment is a container or packaging, or any part of a means of transport that is, or may be used, to contain goods.

The TDG Regulations may refer to other regulations or standards for the manufacturing, selection and use of a means of containment for dangerous goods.

Regulations, safety standards and safety requirements may be specific to a class of dangerous goods, means of containment or mode of transport.

This bulletin identifies the types of means of containment used for dangerous goods; assists in the selection of a means of containment; describes the certification safety marks and makes reference to other regulations based on the mode of transport chosen and the destination of the shipment.

Means of Containment (Small and Large)

Drum

Small means of containment are containers with a water capacity of 450L or less. They may be drums, jerricans, boxes, pails, bags, barrels, cylinders or intermediate bulk containers (IBC).





Cylinder





Large means of containment are containers with a water capacity greater than 450L. They may be highway tanks, tank cars, intermediate bulk containers (IBC), portable tanks or tubes.







Highway Tank

Rail Tank Car

Intermediate Bulk Container

The Selection of a Means of Containment for Dangerous Goods

Several factors influence the selection of a means of containment, such as:

- Class and packing group of the dangerous goods;
- Type and size of the means of containment;
- Mode of transport; and
- Destination.

Manufacture, Selection and Use of Means of Containment

The following table summarizes the requirements of Part 5 (Means of Containment) of the TDG Regulations for the manufacturing, selection and use of a means of containment. With the factors listed above, this table will determine the applicable standard or regulation for the means of containment selected. The table refers to the safety standards short form title. For the complete title, please refer to the table found in Section 1.3.1 of the TDG Regulations.



Class(es) of dangerous goods	Means of containment	Mode of transport	Applicable standard or regulation
1	any	road/rail/marine	CGSB-43.151
		air	CGSB-43.151 & Part 12 of the TDG Regulations
	cylinder, sphere and tube	road/rail/marine/air	CSA-B339, CSA-B340, CSA-B341, CSA-B342 & Section 5.10 and Part 12 of the TDG Regulations
2	aerosol container	road/rail/marine	CGSB-43.123
		air	CGSB-43.123 & Part 12 of the TDG Regulations
	highway tank	road/marine	CSA-B620 & CSA-B622
2	tank car and ton containers	road/rail/marine	TP14877
		road	CSA-B620, CSA-B622 & CSA-B625
2	portable tank	rail	CSA-B620, CSA-B622 & CSA-B625
		marine	CSA-B620, CSA-B622 & CSA-B625
3, 4, 5, 6.1,	small means of containment	road/rail/marine	TP14850 & CGSB-43.146
8 & 9		air	Part 12 of the TDG Regulations
	highway tank	road/marine	CSA-B620 & CSA-B621
3, 4, 5, 6.1, 8 & 9	tank car	rail/marine	TP14877
	ton containers	road/rail/marine	TP14877
	portable tank	road	CSA-B620, CSA-B621, CSA-B625 & CSA-B626
3, 4, 5, 6.1, 8 & 9		rail/marine	CSA-B620, CSA-B621, CSA-B625 & CSA-B626
		air	Part 12 of the TDG Regulations
:	intermediate bulk container (IBC)	road/rail/marine	CGSB-43.146
3, 4, 5, 6.1, 8 & 9		air	Part 12 of the TDG Regulations
	any	road/rail/marine	CGSB-43.125 & Section 5.16 of the TDG Regulations
6.2		air	Part 12 of the TDG Regulations
7	any	road/rail/marine	Packaging and Transport of Nuclear Substances Regulations
		air	Packaging and Transport of Nuclear Substances Regulations & Part 12 of the TDG Regulations



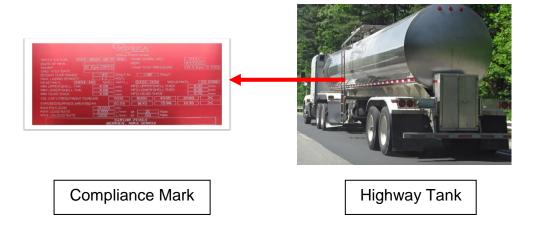
The Compliance Marks on a Means of Containment

All standardized means of containment bear compliance marks to indicate that they were manufactured in compliance with a standard. A compliance mark is any symbol, device, letter, word, number or abbreviation that is displayed on a means of containment or means of transport to indicate compliance with a safety standard.

To remain in standard, some means of containment must be periodically inspected, tested and marked at intervals specified by the standard or regulation. These marks describe what, when and by whom the inspections and tests were performed.

All compliance marks must be durable, visible, legible and easily accessible for inspection.

Most means of containment (MOC) standards in Canada are based on the United Nations (UN) Recommendations. UN standardized MOC are internationally recognized and can be used anywhere in the world and by any mode of transport. However, some MOC standards are specific to Canada. Cylinders, tubes, highway tanks, some portable tanks and rail tank cars are examples of such "TC" standardized MOC which will display the "TC" marking. Note that MOC manufactured in the United States bearing the "DOT" certification safety mark may be recognized in Canada under certain conditions.



Mode of Transport / Destination

There may be additional packaging requirements based on the mode of transport or destination. Refer to the appropriate regulation for more information.

For domestic and international air transport, Part 12 of the TDG Regulations must be consulted for applicable requirements.

For marine transport, Part 11 of the TDG Regulations must be consulted.

The Code of Federal Regulations, Title 49 (49 CFR) must be consulted for road and rail shipments originating from the United States. For road and rail shipments leaving Canada, you must comply with the TDG Regulations.



This bulletin provides a general outline of the means of containment requirements. For specific information, the TDG Act, Regulations and/or standards must be consulted.

Compliance with the Transportation of Dangerous Goods Act and Regulations

Failure to comply with the TDG Act and TDG Regulations may lead to fines and/or imprisonment. For more information, you can visit the TDG website at: www.tc.gc.ca/tdg. If you have any questions about the TDG Regulations, contact a Transport Canada dangerous goods inspector in your region.

Atlantic Region	1-866-814-1477	TDG-TMDAtlantic@tc.gc.ca
Quebec Region	(514) 633-3400	TMD-TDG.Quebec@tc.gc.ca
Ontario Region	(416) 973-1868	TDG-TMDOntario@tc.gc.ca
Prairie & Northern Region	1-888-463-0521	TDG-TMDPNR@tc.gc.ca
Pacific Region	(604) 666-2955	TDGPacific-TMDPacifique@tc.gc.ca



