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## Transportation of Dangerous Goods



# TDG Bulletin

## Classification Scheme

RDIMS # 10104840  
N° SGDDI 10105380  
June 2018

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*This bulletin explains the classification requirements. It does not change, create, amend or suggest deviations to the Transportation of Dangerous Goods (TDG) Regulations. For specific details, consult Part 2 of the TDG Regulations.*

## Classification Scheme

The Transportation of Dangerous Goods (TDG) Act divides dangerous goods into nine classes according to the type of danger they present. The nine classes, as well as their divisions, are described in "[The Marks of Safety](#)" handout.

### Responsibility

#### Classification

It is the consignor's (shipper) responsibility to classify a substance, product or organism to determine if it is dangerous goods. A consignor must do all the preparation work (or hire someone to do it) before the carrier takes possession of the dangerous goods. Preparing the dangerous goods for transport includes:

- classifying the dangerous goods;
- completing the documentation;
- displaying the dangerous goods safety marks on the means of containment ;
- selecting the appropriate means of containment, etc.

Classification is normally done by (or in consultation with):

- a person capable of understanding the nature of the dangerous goods (e.g. a manufacturer);
- a person who formulates, blends or otherwise prepares mixtures or solutions of goods; or
- in the case of infectious substances, a doctor, scientist, veterinarian, epidemiologist, genetic engineer, pathologist, nurse, coroner or laboratory technologist or technician.

#### Proof of classification

A consignor must, during a five-year period that begins on the date that appears on the shipping document, make a proof of classification available to the Minister on reasonable notice given by the Minister.

This document is in the form of:

- a test report;
- a lab report; or
- a document that explains how the dangerous goods were classified.

The proof of classification must include the following information:

- the date on which the dangerous goods were classified;
- if applicable, the technical name of the dangerous goods;
- the classification of the dangerous goods; and
- if applicable, the classification method used under Part 2 of the TDG Regulations or under Chapter 2 of the UN Recommendations.

## **Classification Description**

When classifying dangerous goods, the consignor must identify:

- the shipping name;
- the primary class;
- the UN number;

and, if applicable,

- the compatibility group letter;
  - the subsidiary class(es);
  - the packing group;
  - the infectious substance category.
- The shipping name is the name of the dangerous good as it appears in column 2 of Schedule 1 of the TDG Regulations.
  - The primary class is the class of dangerous goods that poses the highest hazard and takes precedence over any other class posing a lower hazard. The lower hazard class will be identified as a subsidiary class. Note that more than one subsidiary class is possible.
  - The UN number is a four digit number that identifies dangerous goods internationally.
  - The compatibility group identifies the types of Class 1, Explosives substances and articles that can be transported together without significantly increasing either the probability of an incident or, for a given quantity, the magnitude of the effects of such an incident. It is represented by a letter following the primary class.
  - The packing group indicates the degree of danger of a product or substance. Packing group I indicates great danger, packing group II indicates moderate danger and packing group III indicates minor danger.
  - Categories A and B are used to classify Class 6.2, Infectious Substances. They are based on their ability to cause or spread a disease and the severity of that disease. Substances classified as category A indicate greater danger.

## Alternative Methods

### Use of classification

The consignor **must** use the following classifications:

- for substances included in Class 1, Explosives, the classification determined in accordance with the *Explosives Act*
- for substances included in Class 7, Radioactive Materials, the classification determined in accordance with the *Packaging and Transport of Nuclear Substances Regulations*

The consignor **may** use the following classification:

- for substances included in class 6.2, Infectious Substances, the classification determined by the Public Health Agency of Canada or the Canadian Food Inspection Agency

For transport within Canada by road vehicle, railway vehicle or by vessel on a domestic voyage, the consignor may use the classification in:

- the International Civil Aviation Organization (ICAO) Technical Instructions
- the International Maritime Dangerous Goods (IMDG) Code or
- the United Nations (UN) Recommendations

### International transport

As per Part 11 of the TDG Regulations, the IMDG Code must be consulted for international transport by vessel.

For transport from the United States into Canada by road vehicle or railway vehicle, the shipping name used must be one that is recognized in Schedule 1 of the TDG Regulations or in the UN Recommendations.

### Shipment by air

The ICAO Technical Instructions, as well as Part 12 (Air) of the TDG Regulations must be consulted for all shipments by air.

## Classification Summary

Please use the classification summary below to help you use the TDG Regulations to classify dangerous goods for transport.

**Question:** Are the dangerous goods precisely described by the shipping name (and its description) in Schedule 1?

### Answers:

**YES:** Use the shipping name and its corresponding data (UN number, class, packing group/category) - [Section 2.3](#).

For example: UN1203, GASOLINE

**NO:** Consult [Part 2](#) (Classification) of the TDG Regulations:

- If it is in Class 1 or 7, it will be classified pursuant to another regulatory authority;
- Classes 2, 3, 4, 5, 6, 8 and 9 have criteria and require tests to be completed. Based on the criteria and test results, three scenarios exist:

**Scenario 1:** Falls out of all classes

- Not regulated by the TDG Regulations

**Scenario 2:** Falls into one class and one packing group ([Section 2.4](#))

- Consult [Schedule 3](#) for the shipping name that most precisely describes the dangerous goods
- Use the shipping name and its corresponding data (UN number, class, packing group/category) in [Schedule 1](#)

For example: UN1993, FLAMMABLE LIQUID, N.O.S.

**Scenario 3:** Falls into more than one class or packing group ([Section 2.5](#))

- Determine the primary class, subsidiary class(es) and packing group by using [Section 2.8](#)
- Consult [Schedule 3](#) for the shipping name that most precisely describes the dangerous goods
- Use the shipping name and its corresponding data (UN number, class, packing group/category) in [Schedule 1](#)

For example: UN3086, TOXIC SOLID, OXIDIZING, N.O.S.

## 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](http://www.tc.gc.ca/tdg). If you have any questions about the TDG Regulations, contact a Transport Canada dangerous goods inspector in your region.

<b>Atlantic Region</b>	1-866-814-1477	<a href="mailto:TDG-TMDAtlantic@tc.gc.ca">TDG-TMDAtlantic@tc.gc.ca</a>
<b>Quebec Region</b>	(514) 633-3400	<a href="mailto:TMD-TDG.Quebec@tc.gc.ca">TMD-TDG.Quebec@tc.gc.ca</a>
<b>Ontario Region</b>	(416) 973-1868	<a href="mailto:TDG-TMDOntario@tc.gc.ca">TDG-TMDOntario@tc.gc.ca</a>
<b>Prairie &amp; Northern Region</b>	1-888-463-0521	<a href="mailto:TDG-TMDPNR@tc.gc.ca">TDG-TMDPNR@tc.gc.ca</a>
<b>Pacific Region</b>	(604) 666-2955	<a href="mailto:TDGPacific-TMDPacifique@tc.gc.ca">TDGPacific-TMDPacifique@tc.gc.ca</a>

