

**TRANSPORTATION TRANSPORT
OF DANGEROUS DES MATIERES
GOODS DANGEREUSES**

VOLUME I

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Transport
Canada

Transports
Canada

(XIII)

VOLUME I - TABLE OF CONTENTS

Part	Section(s)	Description	Page
I	1	APPLICATION	1 - 2
II	1	INTERPRETATION	3 - 12
III		CLASSIFICATION OF DANGEROUS GOODS	13 - 52
	1	Classes	13
	2	Class 1: Explosives	
	3 - 4	Class 2: Gases compressed or deeply refrigerated	
	5 - 6	Class 3: Inflammable and combustible liquids	
		Class 4: Inflammable solids; substances liable to spontaneous combustion; substances that on contact with water emit inflammable gases	
	7	Class 5: Oxidizing substances; organic peroxides	
	8	Class 6: Poisonous (toxic) and infectious substances	
	9 - 10	Class 7: Radioactive materials and prescribed substances	
	11	Class 8: Corrosives	
	12	Class 9: Miscellaneous dangerous substances or articles	
	13		
		Criteria for grouping unlisted substances	20
	14	Class 3: Inflammable liquids	
	15	Division 6.1: Poisonous substances	
	16	Class 8: Corrosives	
	17		
	18	Classification of unlisted substances	25
		Minimum quantities and concentrations, and Partially regulated goods	27
	19 - 24		
	Appendix 1	Classification Codes	39
	Appendix 2	Methods used for determining the flash point of substances in Class 3	43
	Appendix 3	Determination of transportation safety of viscous inflammable liquids with a flash point of less than 23°C	45
	Appendix 4	Criteria for defining toxicity	49
	Appendix 5	Procedures for determining inhalation toxicity	51

PART III - CLASSIFICATION OF
DANGEROUS GOODS

Classes

1. Subject to section 19, goods deemed to be dangerous for the purpose of these regulations are:

(a) goods listed alphabetically in List A and assigned to one of nine Classes described below; and

(b) goods that have the characteristics of one or more Classes.

Class 1: Explosives

2. (1) Class 1 includes explosive substances and articles that have been classified as such by the Chief Inspector of Explosives or, in the case of explosives under the sole direction or control of the Minister of Defence, the Director of Ammunition Operations, and assigned by him to one of five subdivisions and to one of twelve compatibility groups.

(2) The five divisions of Class 1 are:

(a) Division 1.1: substances and articles that are capable of producing a mass explosion;

(b) Division 1.2: articles that have a projection hazard but not a mass explosion hazard;

(c) Division 1.3: substances and articles that have a fire hazard and either a minor blast hazard or a minor projection hazard, or both, but not a mass explosion hazard;

(d) Division 1.4: substances and articles which present a minor hazard in the event of ignition or initiation during transport, the effects being largely confined to the package with no foreseeable projection of fragments of appreciable size or range; and

(e) Division 1.5: insensitive explosive substances that nevertheless present a mass explosion risk.

(3) The compatibility groups of Class 1 are set out in Appendix 1 to this Part.

Class 2: Gases compressed or deeply refrigerated

3. Class 2 includes four kinds of gases:

(a) compressed gases that cannot be liquefied under pressure at ambient temperatures;

(b) compressed gases that can be liquefied under pressure at ambient temperatures;

(c) compressed gases dissolved under pressure in a solvent that may be absorbed in a porous material; and

(d) deeply refrigerated gases whether compressed or not.

4. (1) Class 2 is divided into three Divisions:

(a) Division 2.1: inflammable gases;

(b) Division 2.2: gases that are not poisonous or inflammable; and

(c) Division 2.3: poisonous gases, being gases with an inhalation toxicity (LC₅₀) of less than 200 p.p.m. per hour of exposure as determined by the criteria set out in Appendix 4.

(2) For the purposes of subsection (1) "inflammable gas" means a gas that:

(a) is inflammable when in a mixture of 13 per cent or less by volume with air at normal atmospheric temperature and pressure;

(b) has an inflammable range, when in a mixture with air at normal atmospheric temperature and pressure, of more than 12 per cent regardless of the lower limit;

(c) is capable of being ignited by a flame applied for 20 seconds or less at a distance of 150 mm when discharged from a cylinder with the valve fully open, with a resulting flame length in the horizontal plane exceeding 450 mm;

(d) causes a significant propagation of flame when discharged from a cylinder with the valve fully open into an open-ended vessel containing an internal ignition source;

(e) causes an explosion or rapid burning when discharged from a cylinder with the valve fully open into a closed vessel containing an internal ignition source; or

(f) flashes back when discharged from a cylinder with the valve open to any extent and burns at the valve when exposed to a flame for a period of 20 seconds at a distance of 150 mm.

Class 3: Inflammable and combustible liquids

5. (1) Subject to subsection (2), Class 3 is divided into three Divisions:

(a) Division 3.1: liquids having a flashpoint below -18°C in a closed-cup test;

(b) Division 3.2: liquids having a flashpoint of -18°C up to, but not including, 37.8°C in a closed-cup test; and

(c) Division 3.3: liquids having a flashpoint of 37.8°C up to 93.3°C in a closed-cup test.

(2) For the purposes of marine transport only, liquids in Division 3.3 with a flashpoint up to and including 60.5°C are deemed to be inflammable.

(3) Approved methods for determining the flashpoint of inflammable liquids are described in Appendix 2 to this Part.

6. Inflammable liquids shall be assigned to one of three danger groups according to the criteria set out in section 15.

Class 4: Inflammable solids; substances liable to spontaneous combustion; substances that on contact with water emit inflammable gases

7. Class 4 is divided into three Divisions:

(a) Division 4.1: solids, other than those classed as explosives, that are readily combustible or that may cause or contribute to fire through friction or from heat retained from manufacturing or processing;

(b) Division 4.2: substances that are liable to spontaneous heating under normal conditions of transport or to heating up in contact with air and then being liable, in either case, to catch fire; and

(c) Division 4.3: substances that emit inflammable gases or become spontaneously combustible on contact with water or water vapour.

Class 5: Oxidizing substances; organic peroxides

8. Class 5 is divided into two Divisions:

(a) Division 5.1: oxidizing substances, being substances whether or not themselves combustible that may, generally by yielding oxygen or by similar processes, increase the risk and intensity of fire in other materials; and

(b) Division 5.2: organic peroxides and other substances that may be combustible or act as oxidizing substances and that may be liable to explosive decomposition, or be sensitive to impact or friction, or burn rapidly or react dangerously with other substances.

Class 6: Poisonous (toxic) and infectious substances

9. (1) Class 6 is divided into two Divisions:

(a) Division 6.1: solids, liquids, dusts, mists or volatile substances that are poisonous by ingestion, inhalation or skin contact; and

(b) Division 6.2:
infectious substances
including substances that
are suspected of being
infectious to humans or
other animals.

(2) Criteria for
classifying and grouping
substances of Division 6.1 are
set out in section 16.

10. Human or other animal
vaccines, including seed
strains approved for the
preparation of live vaccines,
are deemed to be infectious
substances only if no licence
for their manufacture has been
issued by the competent
authority of the country in
which they were produced.

Class 7: Radioactive materials
and prescribed substances

11. (1) Class 7 includes
radioactive materials and
prescribed substances within
the meaning of the Atomic
Energy Control Act.

(2) The Atomic Energy
Control Board shall classify
radioactive materials and
prescribed substances.

Class 8: Corrosives

12. (1) Class 8 includes
substances that, by chemical
action, may cause severe
damage when in contact with
living tissue or may corrode
or destroy other freight or
the means of transport.

(2) Criteria for
determining corrosivity are
set out in section 17.

Class 9: Miscellaneous
dangerous substances or
articles

13. Class 9 includes any
other substances or articles
that experience has shown or
may show to present dangers
sufficient to warrant
regulation in transport and
that can not be ascribed to any
other Class, including:

(a) substances set out in
the Schedule to the
Environmental Contaminants
Act; and

(b) environmentally
hazardous substances as
defined by the Canada-
U.S.A. Great Lakes Agree-
ment on Water Quality,
1978.

Criteria for grouping unlisted
substances

14. (1) For the purpose of
this section and sections 15,
16, 17 and 18, the following
three danger groups are
established:

(a) Group I: Very
dangerous;

(b) Group II: Dangerous;
and

(c) Group III: Moderately
dangerous.