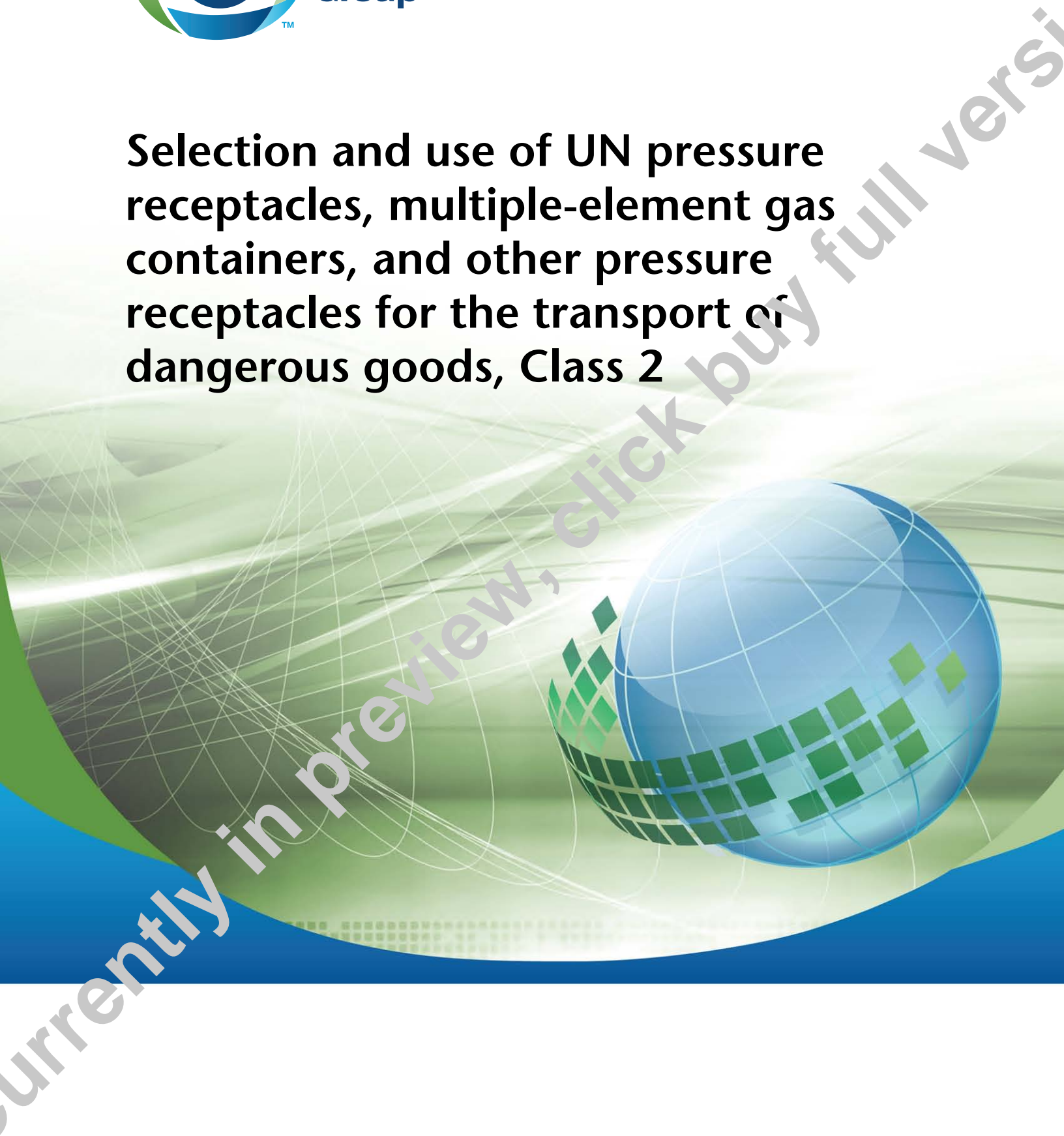




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B342-15

Selection and use of UN pressure receptacles, multiple-element gas containers, and other pressure receptacles for the transport of dangerous goods, Class 2



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Contents

Technical Committee on Cylinders, Spheres and Tubes for Transportation of Dangerous Goods v

Subcommittee on UN Pressure Receptacles and Multiple-Element Gas Containers for the Transport of Dangerous Goods viii

Preface ix

1 Scope 1

2 Reference publications 1

3 Definitions 4

4 General requirements 6

- 4.1 UN pressure receptacles 6
- 4.2 Multiple-element gas containers 7
- 4.3 Other pressure receptacles 8
- 4.4 Valve protection 9
- 4.5 Service equipment for UN pressure receptacles 9
- 4.6 Pressure-relief devices 10
 - 4.6.1 Pressure-relief devices for UN pressure receptacles 10
 - 4.6.2 Additional requirements for UN cryogenic receptacles 12
 - 4.6.3 Pressure-relief devices for multiple-element gas containers 12
- 4.7 UN pressure receptacle orientation and securement during transport 14
- 4.8 UN bundles of cylinders 14
- 4.9 Composite UN cylinders and composite UN tubes 14
- 4.10 Manifolder UN cylinders and manifolded UN tubes 15
- 4.11 UN cylinders and UN tubes mounted on vehicles or trailers 17

5 Selection and filling 17

- 5.1 General 17
- 5.2 Filling UN cylinders, UN tubes, UN bundles of cylinders, and multiple-element gas containers for compressed, liquefied or dissolved gases 19
- 5.3 Filling UN cryogenic receptacles 33
- 5.4 Filling UN metal hydraulic storage systems 35
- 5.5 Adsorbed gases 35
- 5.6 Chemicals under pressure 37

6 Other pressure receptacles 38

- 6.1 Salvage pressure receptacles 38
- 6.2 Filling and handling of foreign UN pressure receptacles for export 39

Annexes

- A — Reference organizations 40

Tables

- 1 — Gases permitted in manifolded UN cylinders 16
- 2 — Compressed gases 23
- 3 — Liquefied gases and dissolved gases 25

- 4** — Refrigerated liquefied gases 34
- 5** — Adsorbed gases 37
- 6** — Chemicals under pressure 38

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Preface

This is the second edition of CSA B342, *Selection and use of UN pressure receptacles, multiple-element gas containers, and other pressure receptacles for the transport of dangerous goods, Class 2*. It supersedes the previous edition published in 2009.

This Standard was prepared as a related Standard to CSA B341-15, *UN pressure receptacles and multiple-element gas containers for the transport of dangerous goods*, with the intent that it will become part of the Government of Canada's *Transportation of Dangerous Goods Regulations* through adoption by reference.

In the development of this Standard, the Subcommittee reviewed and made extensive use of the United Nations' *Recommendations on the Transport of Dangerous Goods — Model Regulations*, 18th rev. ed. (2013) ("UN Model Regulations"). It should be noted that members of the Subcommittee participated in developing and evaluating the ISO standards that are included in the UN Model Regulations. This Standard takes into account proven experience and recent technical advances. The following requirements have been included in this Standard for consistency with North American practices:

- (a) a five-year periodic inspection and test period for UN pressure receptacles in carbon dioxide service and for UN composite cylinders;
- (b) when UN pressure receptacles are required to be equipped with one or more pressure-relief devices, the pressure-relief device system(s) needs to be capable of preventing rupture of normally filled UN pressure receptacles that are subjected to a fire test;
- (c) UN pressure receptacles filled with a refrigerated liquefied gas or a liquefied flammable gas need to be transported in an upright position unless they are designed for horizontal service; and
- (d) the use of UN composite cylinders constructed in accordance with ISO 11119-3:2002, *Gas cylinders of composite construction — Specification and test methods — Part 3: Fully wrapped fibre reinforced composite gas cylinders with non-load-sharing metallic or non-metallic liners*, is not authorized for toxic gases with an LC_{50} less than 200 mL/m³.

This Standard was prepared by the Subcommittee on UN Pressure Receptacles and Multiple-Element Gas Containers for the Transportation of Dangerous Goods, under the jurisdiction of the Technical Committee on Cylinders, Spheres, and Tubes for the Transport of Dangerous Goods and the Strategic Steering Committee on Mechanical and Industrial Equipment Safety, and has been formally approved by the Technical Committee.

Notes:

- (1) Use of the singular does not exclude the plural (and vice versa) when the sense allows.
- (2) Although the intended primary application of this Standard is stated in its Scope, it is important to note that it remains the responsibility of the users of the Standard to judge its suitability for their particular purpose.
- (3) This Standard was developed by consensus, which is defined by CSA Policy governing standardization — Code of good practice for standardization as "substantial agreement. Consensus implies much more than a simple majority, but not necessarily unanimity". It is consistent with this definition that a member may be included in the Technical Committee list and yet not be in full agreement with all clauses of this Standard.
- (4) To submit a request for interpretation of this Standard, please send the following information to inquiries@csagroup.org and include "Request for interpretation" in the subject line:
 - (a) define the problem, making reference to the specific clause, and, where appropriate, include an illustrative sketch;
 - (b) provide an explanation of circumstances surrounding the actual field condition; and
 - (c) where possible, phrase the request in such a way that a specific "yes" or "no" answer will address the issue.Committee interpretations are processed in accordance with the CSA Directives and guidelines governing standardization and are available on the Current Standards Activities page at standardsactivities.csa.ca.
- (5) This Standard is subject to review five years from the date of publication. Suggestions for its improvement will be referred to the appropriate committee. To submit a proposal for change, please send the following information to inquiries@csagroup.org and include "Proposal for change" in the subject line:
 - (a) Standard designation (number);
 - (b) relevant clause, table, and/or figure number;
 - (c) wording of the proposed change; and
 - (d) rationale for the change.

B342-15

Selection and use of UN pressure receptacles, multiple-element gas containers, and other pressure receptacles for the transport of dangerous goods, Class 2

1 Scope

1.1

This Standard specifies requirements for the selection, use, handling, and filling of UN pressure receptacles, multiple-element gas containers, and other pressure receptacles for the transport of dangerous goods included in Class 2, gases.

1.2

In this Standard, “shall” is used to express a requirement, i.e., a provision that the user is obliged to satisfy in order to comply with the standard; “should” is used to express a recommendation or that which is advised but not required; and “may” is used to express an option or that which is permissible within the limits of the Standard.

Notes accompanying clauses do not include requirements or alternative requirements; the purpose of a note accompanying a clause is to separate from the text explanatory or informative material.

Notes to tables and figures are considered part of the table or figure and may be written as requirements.

Annexes are designated normative (mandatory) or informative (non-mandatory) to define their application.

2 Reference publications

This Standard refers to the following publications, and where such reference is made, it shall be to the edition listed below, including all amendments published thereto. Where there is an inconsistency between this Standard and a referenced publication other than the *Transportation of Dangerous Goods Act* and its regulations, the requirements of this Standard shall prevail. Users of this Standard should avoid directly applying a referenced publication without carefully considering this Standard’s reference to that publication.

Note: See [Annex A](#) for information on the reference organizations.

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UN pressure receptacles and multiple-element gas containers for the transportation of dangerous goods

ASME International (American Society of Mechanical Engineers)

Boiler and Pressure Vessel Code, 2013