CSA GROUP™

**CSA B376:22**
National Standard of Canada

# Portable containers for gasoline and other petroleum fuels



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Standards Council of Canada
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*National Standard of Canada*

# *CSA B376:22*

# ***Portable containers for gasoline and other petroleum fuels***



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# *Technical Committee on Portable Fuel Tanks and Containers*

| | | |
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| **I. Hodsi** | Independent,<br>Calgary, Alberta, Canada<br>*Category: General Interest* | |
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| **S. MacNamara** | MacNamara Fuels,<br>Newmarket, Ontario, Canada<br>*Category: User Interest* | |
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| **M. Stern** | Exponent Inc.,<br>Natick, Massachusetts, USA | *Non-voting* |
| **M. Duda** | CSA Group,<br>Cleveland, Ohio, USA | *Project Manager* |

# Preface

This is the second edition of CSA B376, *Portable containers for gasoline and other petroleum fuels*. It supersedes the previous edition published in 1980 and reaffirmed in 2019; B144-1974, *Portable plastic containers for petroleum fuels*; and B252-1976, *Portable metal containers for gasoline and other petroleum fuels*.

Major changes to this edition have been made to:

a) address the wide variety of configurations in the contemporary marketplace and the influence that enhanced environmental and safety considerations have had on portable fuel container system designs;
b) broaden the scope to include all types of containers intended for use by consumers in the transportation of flammable and combustible fluids from the fuel supply station and the storage and dispensing of these fluids for use in internal combustion engines; and
c) harmonize with international norms in test fuel specifications, material property verification and safety marking practices.

In addition, this edition has been reformatted to current CSA Group editorial requirements.

Nothing in this Standard should be considered in any way as indicating a measure of quality beyond compliance with the provisions it contains. It is designed to allow compliance of products which may exceed that specified in the provisions herein. In its preparation, full recognition has been given to possibilities of improvement through ingenuity of design. This Standard is subject to revision as further experience and investigation may show it is necessary and desirable.

Users of this Standard are advised that the devices/products/activities within its scope might be subject to regulation at federal, state, provincial, or local levels. Users are strongly urged to investigate this possibility through appropriate channels. In the event of a conflict with this Standard, the federal, state, provincial, or local regulations should be followed. This Standard may be used in conjunction with the requirements of the National Fire Code of Canada and the local authority having jurisdiction.

This Standard is considered suitable for use for conformity assessment within the stated scope of the Standard.

This Standard was prepared by the Technical Committee on Portable Fuel Tanks and Containers, under the jurisdiction of the Strategic Steering Committee on Fuels and Appliances, and has been formally approved by the Technical Committee.

This Standard has been developed in compliance with Standards Council of Canada requirements for National Standards of Canada. It has been published as a National Standard of Canada by CSA Group.

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   c) *wording of the proposed change; and*
   d) *rationale for the change.*

  

# *CSA B376:22*
# *Portable containers for gasoline and other petroleum fuels*

## 0 Introduction

This edition of CSA B376 continues to address portable fuel containers (PFCs) made of both steel and plastic, although plastic is the most commonly used material in PFCs intended for use by consumers. It has been revised to accommodate PFCs with environmentally responsible automatically closing spouts and innovative PFC configurations.

It further introduces a recent advance in PFC safety by requiring the installation of flame mitigation devices (FMDs) in PFC openings (see Clause 6.1.2). FMDs prevent flame jetting and container explosions caused by the propagation of an external ignition source into the PFC when the PFC is misused to start or accelerate a fire. However, such incidents are rare in comparison with external ignition of volatile fuel vapours, which cannot be prevented by an FMD, and it is evident that public education and cautionary marking remain important for reducing the incidence of burn injuries caused by the misuse of PFCs.

Although PFCs that conform to CSA B376 are excluded from the *Consumer Chemicals and Containers Regulations, 2001* under the *Canada Consumer Product Safety Act* (CCPSA), an equivalent level of child safety in CSA B376 was considered appropriate. This aligns with the U.S. consumer product safety rule requiring child-resistant closures on PFCs for over a decade with significant positive impact on related rates of child injury.

The UN-standardized container for the transportation of flammable liquids (Class 3) called a “jerrican” is authorized under the Canadian *Transportation of Dangerous Goods Regulations* (SOR/2001-286). However, the transportation of dangerous goods in a private motor vehicle for personal use, in containers under 30 kg, is exempt from the regulation (s 1.15 “150 kg gross mass exemption”). This Standard, which is consistent with UN design requirements, applies to personal use of portable fuel containers, including jerricans.

This Standard does not address specific tests for each production unit or periodic audits of production. This should form part of the manufacturer’s quality management system under a Registration Organization accredited by the Standards Council of Canada (SCC) or national equivalent.

Many aspects of the way in which consumers transport, store, and use PFCs have been considered in establishing this standard. This has resulted in demanding requirements for aspects that may deteriorate the materials used (i.e., corrosion, ultraviolet exposure, degradation by harsh chemical compounds) or for rough handling of the PFC (i.e., impact resistance, extreme storage temperature variation). The service life of a PFC, based on similar performance considerations in the *Transportation of Dangerous Goods Regulations*, is considered to be 10 years.

  