CSA CGA 2.29:97
(reaffirmed 2020)

Hand-Held Torches for Fuel Gases

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CSA CGA 2.29:97
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The Canadian Gas Association remains the sponsor of the gas equipment and installation standards programs in Canada. In the U.S. sponsorship, or the Secretariat, was transferred in May 1996 from the American Gas Association to International Approval Services-U.S., Inc. Although IAS-U.S. acts as secretariat of the Z21 Committee, the actions of the committee are independent of ANSI and IAS-U.S.

IAS also operates a design certification program for fuel-fired products covered by the standards, accredited by the American National Standards Institute and the Standards Council of Canada, and accepted by all Canadian inspection authorities. Through the Gas Research Institute (GRI) and the Canadian Gas Research Institute (CGRI), the gas industry helps pursue the improvement of gas equipment and the development of new products. Data from these projects is available to Standards Committees for review and consideration.

As technical advances take place, new standards and revisions to existing standards may be necessary. When they are believed desirable, recommendations or suggestions should be forwarded to the Standards Departments of IAS at 55 Scarsdale Road, Don Mills, Ontario, Canada M3B 2R3.

CANADIAN GAS ASSOCIATION

The Canadian Gas Association (CGA), has been accredited by the Standards Council of Canada to prepare National Standards of Canada in the area of equipment for use with natural gas and propane. Founded in 1907, its 320 corporate members span the industry spectrum and include natural gas transmission companies, distributors, manufacturers of other gas appliances and equipment, brokers, marketers and producers.

Committees that write the standards include representation from all interests and are so constituted that no one interest may dominate. The interests represented include consumers, manufacturers, utilities, governmental inspection authorities and certification organizations. Standards are prepared using the consensus principle with effort applied to reconcile differing opinions. Government inspection authorities having jurisdiction also ballot on the standards as members of the Interprovincial Gas Advisory Council (IGAC).

The CGA Standards Advisory Committee (SAC) reviews committee structures and procedures to determine that the standards meets the criteria of the Standards Council of Canada.

This Standard has been accepted by the Standards Committee, IGAC and SAC.

This Standard is intended to be used within the scope of the standard by the manufacturing sector, by those applying the equipment, or those responsible for its proper application. It is the responsibility of the user to determine in each case that the Standard is suitable for the specific application. The Standards Committee and IGAC normally stipulate an effective date for the Standard.

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HAND-HELD TORCHES FOR FUEL GASES

This standard is a first edition

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Canadian Gas Association

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NOTE

This Standard contains SI (Metric) equivalents to the yard/pound quantities, the purpose being to allow the Standard to be used in SI (Metric) units. Some sectors of industry in the future may select different metric values where this Standard shows only equivalents. If a value for a measurement as given in this Standard is followed by an equivalent value in other units, the first stated is to be regarded as the requirement. The given equivalent may be approximate. If a value for a measurement and an equivalent value in other units are both specified as quoted marking requirement, the first stated unit, or both shall be provided.

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REFERENCE PUBLICATIONS

Where reference is made to other publications, such reference shall be considered to refer to the latest edition and revision thereto, unless otherwise specified. This Standard refers to the following such publications, and the dates shown indicate the latest editions available at the time of printing.

Reference Standards

ASTM

B154-89m	*Method for Mercurous-Nitrate Test for Copper and Copper Alloys*
D1598-86	*Test Method for Time-to-Failure of Plastic Pipe under Constant Internal Pressure*
D2837-90	*Method for Obtaining Hydrostatic Design Basis for Thermoplastic Pipe Materials*

American National Standards Institute

MC96.1-1982	*Temperature Measurement Thermocouples*

American National Standards Institute/Compressed Gas Association

V-1-1987	*Compressed Gas Cylinder Valve Outlet and Inlet Connections*

Canadian Gas Association

CAN/CGA-8.1	*Elastomeric Composite Hose and Hose Couplings for Conducting Propane and Natural Gas*
CAN1-8.3	*Thermoplastic Hose and Hose Couplings for Conducting Propane and Natural Gas*
CAN/CGA-B149.1	*Natural Gas Installation Code*
CAN/CGA-B149.2	*Propane Installation Code*

Canadian Standards Association

CSA W117.2	*Safety in Welding, Cutting and Allied Processes*
CSA B339	*Cylinders, Spheres, and Tubes for the Transportation of Dangerous Goods*

National Fire Protection Association

NFPA 58	*Storage and Handling of Liquefied Petroleum Gases*

Underwriters' Laboratories of Canada

ULC340	*Laboratory Test Requirements for Pipe Joint Compounds*

Underwriters' Laboratories Inc.

UL94	*Tests for Flammability of Plastic Materials for Parts in Devices and Appliances*
UL125	*Valves for Anhydrous Ammonia and LP-Gas (Other Than Safety)*
UL144	*Pressure Regulating Valves for LP Gas*
UL157	*Gaskets and Seals*

PREFACE

This Standard, like all standards prepared by the Canadian Gas Association, is subject to periodic review. Amendments in the form of replacement pages may be issued from time to time. To receive copies of these replacement pages, purchasers of this Standard should complete and return the attached card.

Standards are updated in conjunction with changes in technology and are normally reviewed at least within a five-year period. If the Standards Committee, industry and Provincial inspection authorities feel the standard requires no change, then the standard may be re-affirmed and only the date is changed.

Although any replacement pages that have been issued will be sold with the Standard, the purchaser must insert them where they apply. Replacement pages will show the date of the publication of the amendment. **The effective date of the changes will be shown on the cover page of the amendment and is usually one year after publication.**

It is the responsibility of the purchaser to maintain this copy of the Standard and to retain those pages which have been replaced for reference purposes.

1. CONSTRUCTION

1.1 SCOPE

1.1.1 This Standard applies to newly-produces torches for use with propane, butane, natural gas, and MPS (methyl acetylene-propadiene stabilized). This standard applies to torches that aspirate atmospheric air for combustion.

1.1.2 These requirements apply to hand-held torches intended for industrial applications such as brazing, soldering, pre-heating for welding, heat treatment, and general applications such as grass burning, paint removal, and the eradication of weeds and insects.

1.1.3 Torches covered by these requirements shall not be used with oxygen.

1.1.4 Torches covered by these requirements are intended

(a) for direct connection to

(i) specification TC-2P and TC-2Q non-refillable containers, meeting the requirements of CAN/CGSB-43.123 and the Transportation of Dangerous Goods Regulations; or

(ii) specification TC-39 non-refillable containers, meeting the requirements of CAN/CSA-B339 and the Transportation of Dangerous Goods Regulations; or

(b) for direct connection to refillable containers meeting the requirements of CAN/CSA-B339 and the Transportation of Dangerous Good Regulations;

(c) to incorporate an integral, refillable or non-refillable cylinder that meets the requirements of (a) or (b) above; or

(d) for hose connection to the fuel gas supply, with or without a regulator.

NOTE: *Provided that a torch meets the requirements of this standard, there is no maximum or minimum rate of firing and except as noted in 1.5.13.1, there is no capacity limitation on the fuel container.*

1.1.5 Torches covered by these requirements are intended to be used in accordance with the

(a) applicable provisions of CGA Standards CAN/CGA-B149.1, *Natural Gas Installation Code*, and CAN/CGA-B149.2 *Propane Installation Code*; and/or

(b) requirements of the authority having jurisdiction.

1.1.6 A product that contains features, characteristics, components, materials, or systems new or different from those in use when the standard was developed, and that involves a risk of fire, electric shock, or injury to persons shall be evaluated using the appropriate additional component and end-product requirements as determined necessary to maintain the level of safety for the use of the product as originally anticipated by the intent of this standard.

1.1.7 This Standard applies to torches constructed entirely of new, unused parts and materials.