ULC Standards
Normes ULC

JOINT CANADA – UNITED STATES NATIONAL STANDARD

ANSI/CAN/UL/ULC 2586A:2026

STANDARD FOR SAFETY

Hose Nozzle Valves for Gasoline and Gasoline/Ethanol Blends with Nominal Ethanol Concentrations up to 98 Percent (E0 – E98)

Approved American National Standard

ANSI/UL 2586A-2026

SCC FOREWORD

National Standard of Canada

A National Standard of Canada is a standard developed by a Standards Council of Canada (SCC) accredited Standards Development Organization, in compliance with requirements and guidance set out by SCC. More information on National Standards of Canada can be found at www.scc.ca.

SCC is a Crown corporation within the portfolio of Innovation, Science and Economic Development (ISED) Canada. With the goal of enhancing Canada's economic competitiveness and social well-being, SCC leads and facilitates the development and use of national and international standards. SCC also coordinates Canadian participation in standards development, and identifies strategies to advance Canadian standardization efforts.

Accreditation services are provided by SCC to various customers, including product certifiers, testing laboratories, and standards development organizations. A list of SCC programs and accredited bodies is publicly available at www.scc.ca.

ULSE INC. COPYRIGHTED MATERIAL – NOT AUTHORIZED FOR FURTHER REPRODUCTION OR DISTRIBUTION WITHOUT PERMISSION FROM ULSE INC.

UL Standard for Safety for Hose Nozzle Valves for Gasoline and Gasoline/Ethanol Blends with Nominal Ethanol Concentrations up to 98 Percent (E0 – E98), ANSI/CAN/UL/ULC 2586A

Third Edition, Dated July 29, 2026

Summary of Topics

This new Third Edition of ANSI/CAN/UL/ULC 2586A dated July 29, 2026 includes changes to revise the title and scope of UL/ULC 2586A to increase ethanol concentration from 85 % to 98 % for fuel handling equipment.

The new and revised requirements are substantially in accordance with Proposal(s) on this subject dated December 5, 2025 and May 8, 2026.

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form by any means, electronic, mechanical photocopying, recording, or otherwise without prior permission of ULSE Inc. (ULSE).

ULSE provides this Standard "as is" without warranty of any kind, either expressed or implied, including but not limited to, the implied warranties of merchantability or fitness for any purpose.

In no event will ULSE be liable for any special, incidental, consequential, indirect or similar damages, including loss of profits, lost savings, loss of data, or any other damages arising out of the use of or the inability to use this Standard, even if ULSE or an authorized ULSE representative has been advised of the possibility of such damage. In no event shall ULSE's liability for any damage ever exceed the price paid for this Standard, regardless of the form of the claim.

Users of the electronic versions of UL's Standards for Safety agree to defend, indemnify, and hold ULSE harmless from and against any loss, expense, liability, damage, claim, or judgment (including reasonable attorney's fees) resulting from any error or deviation introduced while purchaser is storing an electronic Standard on the purchaser's computer system.

ULSE INC. COPYRIGHTED MATERIAL – NOT AUTHORIZED FOR FURTHER REPRODUCTION OR DISTRIBUTION WITHOUT PERMISSION FROM ULSE INC.

No Text on This Page

ULSE INC. COPYRIGHTED MATERIAL – NOT AUTHORIZED FOR FURTHER REPRODUCTION OR DISTRIBUTION WITHOUT PERMISSION FROM ULSE INC.

ANSI/UL 2586A-2026

JULY 29, 2026

ANSI/CAN/UL/ULC 2586A:2026

Standard for Hose Nozzle Valves for Gasoline and Gasoline/Ethanol Blends with Nominal Ethanol Concentrations up to 98 Percent (E0 – E98)

First Edition – February, 2015
Second Edition – May, 2024

Third Edition

July 29, 2026

This ANSI/CAN/UL/ULC Safety Standard consists of the Third Edition.

The most recent designation of ANSI/UL 2586A as an American National Standard (ANSI) occurred on July 29, 2026. ANSI approval for a standard does not include the Cover Page, Transmittal Pages, Title Page, Preface or SCC Foreword.

This Standard has been designated as a National Standard of Canada (NSC) on July 29, 2026.

© 2026 ULSE Inc. All rights reserved.

ULSE INC. COPYRIGHTED MATERIAL – NOT AUTHORIZED FOR FURTHER REPRODUCTION OR DISTRIBUTION WITHOUT PERMISSION FROM ULSE INC.

No Text on This Page

ULSE INC. COPYRIGHTED MATERIAL – NOT AUTHORIZED FOR FURTHER REPRODUCTION OR DISTRIBUTION WITHOUT PERMISSION FROM ULSE INC.

CONTENTS

Preface 5

INTRODUCTION

1 Scope 7
2 Components 8
3 Units of Measurement 9
4 Referenced Publications 9
5 Glossary 10

CONSTRUCTION

6 Assembly 11
6.1 General 11
6.2 Hose nozzle valves 11
7 Materials 12
7.1 Metallic materials 12
7.2 Nonmetallic materials 15
7.3 Casting impregnation materials 17
7.4 Internal parts 17
7.5 Blending options 17
8 Bodies and Covers 18
9 Diaphragms 20
10 Springs 20
11 Operating Mechanisms 20

PERFORMANCE

12 General 20
13 Deformation Test 21
14 Long Term Exposure Test 22
14.1 General 22
14.2 Samples 22
14.3 Method 23
14.4 Results 23
15 External Leakage Test 24
16 Hose Nozzle Valve Guard Strength Test 24
17 Operation Test 26
17.1 Automatic hose nozzle valve 26
17.2 Bellows secondary shut off operation 26
18 Pull Test 26
19 Sensitivity Test 27
20 Endurance Test 27
21 Bellows Secondary Shut Off Operation Test 28
22 Visible Discharge Indicator Tests 28
22.1 Thermal shock test 28
22.2 Drop test 28
23 Hydrostatic Strength Test 28
24 Electrical Continuity Test 29
25 Salt Spray Test 29
26 Moist Ammonia-Air Stress Cracking Test 29
27 Marking Adhesion Test 30

ULSE INC. COPYRIGHTED MATERIAL – NOT AUTHORIZED FOR FURTHER REPRODUCTION OR DISTRIBUTION WITHOUT PERMISSION FROM ULSE INC.

28 Blending Cycling Test 30

MANUFACTURING AND PRODUCTION

29 General 31

INSTALLATION INSTRUCTIONS

30 General 31

MARKING

31 General 31

ANNEX A (normative) – TEST FLUIDS

A1 Details 33

ULSE INC. COPYRIGHTED MATERIAL – NOT AUTHORIZED FOR FURTHER REPRODUCTION OR DISTRIBUTION WITHOUT PERMISSION FROM ULSE INC.

Preface

This is the Third Edition of ANSI/CAN/UL/ULC 2586A, Standard for Hose Nozzle Valves for Gasoline and Gasoline/Ethanol Blends with Nominal Ethanol Concentrations up to 98 Percent (E0 – E98).

ULSE is accredited by the American National Standards Institute (ANSI) and the Standards Council of Canada (SCC) as a Standards Development Organization (SDO).

This Standard has been developed in compliance with the requirements of ANSI and SCC for accreditation of a Standards Development Organization.

This ANSI/CAN/UL/ULC 2586A Standard is under continuous maintenance, whereby each revision is approved in compliance with the requirements of ANSI and SCC for accreditation of a Standards Development Organization. In the event that no revisions are issued for a period of four years from the date of publication, action to revise, reaffirm, or withdraw the standard shall be initiated.

Annex A is identified as Normative, as such, form mandatory parts of this Standard.

In Canada, there are two official languages, English and French. All safety warnings must be in French and English. Attention is drawn to the possibility that some Canadian authorities may require additional markings and/or installation instructions to be in both official languages.

This Third Edition joint American National Standard and National Standard of Canada is based on, and now supersedes, the Second Edition of UL 2586A.

Comments or proposals for revisions on any part of the Standard may be submitted at any time. Proposals should be submitted via a Proposal Request in the Collaborative Standards Development System (CSDS) at https://csds.ul.com.

Our Standards for Safety are copyrighted by ULSE Inc. Neither a printed nor electronic copy of a Standard should be altered in any way. All of our Standards and all copyrights, ownerships, and rights regarding those Standards shall remain the sole and exclusive property of ULSE Inc.

This Edition of the Standard has been formally approved by the Technical Committee (TC) on Valves for Flammable Fluids, TC 842.

This list represents the TC 842 membership when the final text in this Standard was balloted. Since that time, changes in the membership may have occurred.

ULSE INC. COPYRIGHTED MATERIAL – NOT AUTHORIZED FOR FURTHER REPRODUCTION OR DISTRIBUTION WITHOUT PERMISSION FROM ULSE INC.

TC 842 Membership

Name	Representing	Interest Category	Region
Paras Bhattal	UL Solutions	Testing & Standards Org.	USA
Mark Bishoff	Lorax Systems Inc.	Producer	Canada
Dennis Boyd	BP America Inc.	Commercial /Industrial User	USA
Claude Deschamps	Regie du Batiment du Quebec	Authorities Having Jurisdiction	Quebec
John Dutton	J Dutton	General Interest	Canada
Tom Henderson	State Water Resources Control Board	Authorities Having Jurisdiction	USA
Michelle Hilger	Mongoose Power Solutions	General Interest	USA
Wolf Koch	Technology Resources International	General Interest	USA
Matt Lauber	OPW Fueling Components Inc.	Producer	USA
Pierre Legault	Integrated Review Services – Consulting	General Interest	Canada
Jeanne Murphy Meyer	Core Engineered Solutions Inc.	Commercial / Industrial User	USA
Lokeswar Panchala	NCI Canada Inc.	Producer	Canada
James Petersen	Petersen Engineering	General Interest	USA
Jeffrey Prusko	UL Standards & Engagement	TC Project Manager – Non-voting	USA
Adam Stowers	Hercules OEM	Supply Chain	USA
Vivek Vijay	Emirates Safety Laboratory	Testing & Standards Org.	United Arab Emirates
Laura Werner	UL Standards & Engagement	TC Chair – Non-voting	Canada
Brian Wiegert	PMMIC	Commercial / Industrial User	USA
Jeremy Yager	Morrison Bros. Co.	Producer	USA

International Classification for Standards (ICS): 23.060.01; 23.100.50; 75.160.20

For information on ULSE Standards, visit https://www.shopulstandards.com, call toll free 1-888-853-3503 or email us at ClientService@shopULStandards.com.

This Standard is intended to be used for conformity assessment.

The intended primary application of this Standard is stated in its scope. It is important to note that it remains the responsibility of the user of the standard to judge its suitability for this particular application.

CETTE NORME NATIONALE DU CANADA EST DISPONIBLE EN VERSIONS FRANÇAISE ET ANGLAISE

ULSE INC. COPYRIGHTED MATERIAL – NOT AUTHORIZED FOR FURTHER REPRODUCTION OR DISTRIBUTION WITHOUT PERMISSION FROM ULSE INC.

INTRODUCTION

1 Scope

1.1 These requirements cover hose nozzle valves that are intended to be used for the control of motor fuels as indicated in 1.3. They are of the type used in motor fuel dispensing equipment. Hose nozzle valves covered by this Standard are for use with motor fuels which are handled at temperatures within the range of minus 20 °F (minus 29 °C) to 125 °F (52 °C) and an operating pressure of minimum 50 psig (345 kPa).

1.2 Hose nozzle valves for gasoline/ethanol blends with nominal ethanol concentrations up to 98 % (E0 – E98) shall be constructed to comply with the following:

a) The requirements defined in the Standard for Hose Nozzle Valves for Flammable and Combustible Liquids, UL/ULC 2586; and

b) The requirements in this Standard.

1.3 Hoze nozzle valves covered by these requirements are intended for use with one or more of the following, as applicable:

a) Gasoline formulated in accordance with the Standard Specification for Automotive Spark-Ignition Fuel, ASTM D4814;

b) Gasoline/ethanol blends with nominal ethanol concentrations up to 25 % ethanol (E25), consisting of gasoline formulated in accordance with the Standard Specification for Automotive Spark-Ignition Fuel, ASTM D4814, when blended with denatured fuel ethanol formulated to be consistent with the Standard Specification for Denatured Fuel Ethanol, ASTM D4806; or

c) Gasoline/ethanol blends with nominal ethanol concentrations above 25 % formulated in accordance with the following:

1) Standard Specifications in (b);

2) Standard Specification for Ethanol Fuel Blends for Flexible-Fuel Automotive Spark-Ignition Engines, ASTM D5798; or

3) Standard Specification for Denatured Fuel Ethanol, ASTM D4806.

1.4 These requirements cover hose nozzle valves of the manually operated and automatic type. When they form a part of an assembly which provides for additional functions or service, the requirements are outside the scope of these requirements.

1.5 These requirements do not cover the following:

a) Hose nozzle valves for handling liquids under cryogenic conditions.

b) Hose nozzle valves for general refinery service, offshore and pipe line terminals, natural gas processing plants, gas distribution systems, petrochemical processing facilities, or the like.

c) Hose nozzle valves operated wholly or partially by electricity or battery.

1.6 This Standard does not cover hose nozzle valves for use with diesel, biodiesel, diesel/biodiesel blends, kerosene or fuel oil, which are covered under the Standard for Hose Nozzle Valves for Diesel Fuel, Biodiesel Fuel, Diesel/Biodiesel Blends with Nominal Biodiesel Concentrations up to 20 Percent (B20), Kerosene, and Fuel Oil, UL/ULC 2586B.

ULSE INC. COPYRIGHTED MATERIAL – NOT AUTHORIZED FOR FURTHER REPRODUCTION OR DISTRIBUTION WITHOUT PERMISSION FROM ULSE INC.

1.7 This Standard does not cover hose nozzle valves for use with liquefied petroleum gas (LP-Gas), which are covered under the Standard for Flow Control Valves for Anhydrous Ammonia and LP-Gas, UL/ULC 125.

1.8 Products covered by this Standard are intended to be installed and used in accordance with the applicable Codes and Regulations as determined by the Authority Having Jurisdiction (AHJ), such as but not limited to:

a) In the United States:

1) Flammable and Combustible Liquids Code, NFPA 30;

2) Code for Motor Fuel Dispensing Facilities and Repair Garages, NFPA 30A.

b) In Canada:

1) The National Fire Code of Canada;

2) Provincial or other Regulations.

1.9 Products intended to be rated for use with gasoline or gasoline/ethanol blends with nominal ethanol concentrations:

a) Up to 25 % (E0 – E25) shall be evaluated using CE25a test fluid as the only applicable test fluid;

b) Up to 40 % (E0 – E40) shall be evaluated using both CE25a and CE40a test fluids; or

c) Up to 98 % (E0 – E98) shall be evaluated using both CE25a and CE85a test fluids.

2 Components

2.1 Except as indicated in 2.2, a component of a product covered by this Standard shall comply with the requirements for that component.

2.2 A component is not required to comply with a specific requirement that:

a) Involves a feature or characteristic not required in the application of the component in the product covered by this Standard; or

b) Is superseded by a requirement in this Standard.

2.3 A component shall be used in accordance with its rating established for the intended conditions of use.

2.4 Specific components are incomplete in construction features or restricted in performance capabilities. Such components are intended for use only under limited conditions, such as certain temperatures not exceeding specified limits, and shall be used only under those specific conditions.

2.5 A hose nozzle valve with an integral swivel shall be additionally evaluated to the Electrical-Continuity and Operation Tests in UL/ULC 567A. The force shall be applied at the point on the swivel farthest from the joint. When necessitated by the swivel construction, this test shall be conducted on additional samples of the swivel with the load applied on the opposite side of the plane of rotation. See UL/ULC 567A, Figures 16.1 – 16.4 for examples.

ULSE INC. COPYRIGHTED MATERIAL – NOT AUTHORIZED FOR FURTHER REPRODUCTION OR DISTRIBUTION WITHOUT PERMISSION FROM ULSE INC.

3 Units of Measurement

3.1 Values stated without parentheses are the requirement. Values in parentheses are explanatory or approximate information.

4 Referenced Publications

4.1 Any undated reference to a code or standard appearing in the requirements of this Standard shall be interpreted as referring to the latest edition of that code or standard.

4.2 The following publications are referenced in this Standard:

ASME B1.20.1, *Pipe Threads, General Purpose, Inch*

ASTM A653/A653M, *Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process*

ASTM B117, *Standard Practice for Operating Salt Spray (Fog) Apparatus*

ASTM B858, *Standard Test Method for Ammonia Vapor Test for Determining Susceptibility to Stress Corrosion Cracking in Copper Alloys*

ASTM D4806, *Standard Specification for Denatured Fuel Ethanol for Blending with Gasolines for Use as Automotive Spark-Ignition Engine Fuel*

ASTM D4814, *Standard Specification for Automotive Spark-Ignition Engine Fuel*

ASTM D5798, *Standard Specification for Ethanol Fuel Blends for Flexible-Fuel Automotive Spark-Ignition Engines*

ASTM D7467, *Standard Specification for Diesel Fuel Oil, Biodiesel Blends (B6 – B20)*

CSA C22.2 No. 0.15, *Adhesive Labels*

NFC, *National Fire Code of Canada*

NFPA 30, *Flammable and Combustible Liquids Code*

NFPA 30A, *Code for Motor Fuel Dispensing Facilities and Repair Garages*

UL 87A, *Power-Operated Dispensing Devices for Gasoline and Gasoline/Ethanol Blends with Nominal Ethanol Concentrations up to 98 Percent (E0 – E98)*

UL/ULC 125, *Flow Control Valves for Anhydrous Ammonia and LP-Gas*

UL 157, *Gaskets and Seals*

UL/ULC 567A, *Emergency Breakaway Fittings, Swivel Connectors and Pipe-Connection Fittings for Gasoline and Gasoline/Ethanol Blends with Nominal Ethanol Concentrations up to 98 Percent (E0 – E98)*

UL 746C, *Polymeric Materials – Use in Electrical Equipment Evaluations*

ULSE INC. COPYRIGHTED MATERIAL – NOT AUTHORIZED FOR FURTHER REPRODUCTION OR DISTRIBUTION WITHOUT PERMISSION FROM ULSE INC.