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ANSI/CAN/UL/ULC 842A:2026

STANDARD FOR SAFETY

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

Approved American National Standard
ANSI

ANSI/UL 842A-2026

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UL Standard for Safety for Valves for Gasoline and Gasoline/Ethanol Blends with Nominal Ethanol Concentrations up to 98 Percent (E0 – E98), ANSI/CAN/UL/ULC 842A

Third Edition, Dated July 29, 2026

Summary of Topics

This new Third Edition of ANSI/CAN/UL/ULC 842A dated July 29, 2026 includes changes to revise the title and scope of UL/ULC 842A to increase ethanol concentration from 85 % to 98 % for fuel handling equipment and a correction/clarification of weak section strength test and external leakage test limits.

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

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ANSI/UL 842A-2026

JULY 29, 2026

ANSI/CAN/UL/ULC 842A:2026

Standard for 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 842A 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.

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Preface

This is the Third Edition of ANSI/CAN/UL/ULC 842A, Standard for 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 842A 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 842A.

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.

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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.

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TC 842 Membership

Name	Representing	Interest Category	Region
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Dennis Boyd	BP America Inc.	Commercial /Industrial User	USA
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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.

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INTRODUCTION

1 Scope

1.1 These requirements cover valves that are intended to be used for the control of fluids and their vapors for the fluids indicated in 1.3. They are of the type commonly used in piping systems and in the assembly of motor fuel dispensing equipment. Valves covered by this Standard are for use with flammable fluids which are handled at temperatures normally within the range of minus 20 °F (minus 29 °C) – 125 °F (52 °C).

1.2 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 Valves for Flammable and Combustible Liquids, UL/ULC 842; and

b) The requirements in this Standard.

1.3 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 valves of the manually operated, pressure operated, or temperature operated types, or combinations of such to the exclusion of types operated wholly or partially by electricity. 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 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; or

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2) Provincial or other Regulations.

1.6 These requirements do not cover the following:

a) Valves for handling liquids under cryogenic conditions;

b) Valves for general refinery service, offshore and pipe line terminals, natural gas processing plants, gas distribution systems, petrochemical processing facilities, or the like;

c) Constant-level oil valves and electrically operated valves;

d) Relief valves and pressure regulators for liquefied petroleum gas (LP-Gas) service;

e) Shutoff, emergency shutoff and check valves for liquefied petroleum gas (LP-Gas) in the liquid phase;

f) Manually operated gas valves of the plug and body or rotating disc type which are evaluated under the Standard for Manually Operated Gas Valves for Appliances, Appliance Connector Valves and Hose End Valves, ANSI Z21.15;

g) Valves covered by the Standard for Gas Appliance Pressure Regulators, ANSI Z21.18; the Standard for Automatic Valves for Gas Appliances, ANSI Z21.21; or the Standard for Gas Appliance Thermostats, ANSI Z21.23;

h) Hose Nozzle Valves for Flammable and Combustible Liquids, UL/ULC 2586;

i) Valves covered by the Standard for Manually Operated Metallic Gas Valves for Use in Gas Piping Systems up to 125 PSI (Sizes NPS 1/2 through NPS 2), ASME B16.33 and Manually Operated Metallic Gas Valves for Use in Aboveground Piping Systems up to 5 PSI, ASME B16.44;

j) Manually operated valves for diesel fuel, biodiesel fuel, diesel/biodiesel blends, kerosene, or fuel oil, which are covered under the Standard for Valves for Diesel Fuel, Biodiesel Fuel, Diesel/Biodiesel Blends with Nominal Biodiesel Concentrations up to 20 Percent (B20), Kerosene, and Fuel Oil, UL/ULC 842B;

k) Manually operated valves for LP-Gas, which are covered under the Standard for Valves for Flammable Fluids, UL/ULC 842;

l) 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.

1.7 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 % 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:

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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.

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*

ASME B16.33, *Manually Operated Metallic Gas Valves for Use in Gas Piping Systems up to 175 psi (Sizes NPS 1/2 through NPS 2)*

ASME B16.44, *Manually Operated Metallic Gas Values for use in Above Ground Piping Systems up to 5 psi*

ANSI Z21.15, *Manually Operated Gas Valves For Appliances, Appliance Connector Valves And Hose End Valves*

ANSI Z21.18, *Gas Appliance Pressure Regulators*

ANSI Z21.21, *Automatic Valves For Gas Appliances*

ANSI Z21.23, *Gas Appliance Thermostats*

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

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*

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

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