CAN/ULC 566:2025A

Standard for Halocarbon Clean Agent Fire Extinguishers

ULC Standards
Normes ULC

SCC CCN

Underwriters Laboratories of Canada (ULC) was established in 1920 by letters patent issued by the Canadian Government. It maintains and operates laboratories and certification services for the examination, testing and certification of appliances, equipment, materials, constructions and systems to determine their relation to life, fire and property hazards as well as providing inspection services.

ULC Standards develops and publishes standards and other related publications for building construction, security and burglar protection, environmental safety, electrical equipment, fire protection equipment, gas and oil equipment, thermal insulation products, materials and systems, energy use in the built environment and electrical utility safety.

ULC Standards is a not-for-profit organization and is accredited by the Standards Council of Canada as a Standards Development Organization.

National Standards of Canada developed by ULC Standards conform to the criteria and procedures established by the Standards Council of Canada. Such standards are prepared using the consensus principle by individuals who provide a balanced representation of interests relevant to the subject area on a national basis.

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.

For further information on ULC standards, please contact:

ULC STANDARDS
Telephone: 1-888-853-3503
E-mail: ClientService@shopULStandards.com

To purchase ULC Standards, visit: https://www.shopulstandards.com

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 the particular application.

Copies of this National Standard of Canada may be ordered from ULC Standards.

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

Standard for Halocarbon Clean Agent Fire Extinguishers, CAN/ULC 566

Second Edition, Dated January 5, 2017

Summary of Topics

This revision to CAN/ULC 566 dated August 15, 2025 includes revisions to Manual Section; 72.1, 72.2 (deleted) and 72.3.

Text that has been changed in any manner or impacted by ULSE's electronic publishing system is marked with a vertical line in the margin.

The revised requirements are substantially in accordance with Proposal(s) on this subject dated March 28, 2025.

PLEASE NOTE THAT CERTAIN CODES MAY REFER TO A SUPERSEDED VERSION OF THIS STANDARD. IN THOSE INSTANCES, THE RELEVANT VERSIONS ARE AVAILABLE FOR PURCHASE.

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

ULC Standards
Normes ULC

ULC Standards
CAN/ULC 566:2025A
Second Edition

ULSE Inc.
ANSI/UL 2129
Third Edition

Halocarbon Clean Agent Fire Extinguishers

January 5, 2017

(Title Page Reprinted: August 15, 2025)

Approved American National Standard
ANSI

ANSI/UL 2129-2025

NATIONAL STANDARD OF CANADA
STANDARDS COUNCIL OF CANADA
CONSEIL CANADIEN DES NORMES
NORME NATIONALE DU CANADA

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

Commitment for Amendments

This Standard is issued jointly by ULSE Inc. (ULSE) and ULC Standards. Amendments to this Standard will be made only after processing according to the Standards writing procedures by ULSE and ULC Standards.

ISSN 0317-526X © 2025 ULC Standards

All rights reserved. No part of this publication may be reproduced in any form whatsoever without the prior permission of the publisher.

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.

© 2025 ULSE Inc.

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 ANSI/UL Standard for Safety consists of the Third Edition including revisions through August 15, 2025.

The most recent designation of ANSI/UL 2129 as an American National Standard (ANSI) occurred on August 15, 2025. ANSI approval for a standard does not include the Cover Page, Transmittal Pages, Title Page (front and back), or the Preface.

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

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

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

ULC Preamble

International Classification for Standards (ICS): 13.220.10

This Standard has been developed in compliance with the requirements of the Standards Council of Canada (SCC) for accreditation of a Standards Development Organization.

Attention is drawn to the possibility that some of the elements of this Canadian standard may be the subject of patents rights. ULC Standards shall not be held responsible for identifying any or all such patents rights.

Requests for interpretation of this Standard should be sent to ULC Standards. The requests should be worded in such a manner as to permit a “yes” or “no” answer based on the literal text of the requirement concerned.

The Second Edition of this ULC Standard was based on, and superseded, the First Edition.

This CAN/ULC 566 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.

This Standard is intended to be used for conformity assessment.

ULC STANDARDS COMMITTEE ON PORTABLE FIRE EXTINGUISHERS

Name	Affiliation	Category	Region
L. Bourgeois	Tritop Inc	Supply Chain	Canada
G. Ferris	Protection R.T Inc.	Producer	Canada
D. Haithcock	UL Standards & Engagement	Non-voting	USA
B. Levitt	Levitt-Safety Ltd.	User	Canada
F. Luz	UL Standards & Engagement	TC Chair (Non-voting)	Canada
C. McLean	Midland Fire Department	Authorities Having Jurisdiction / Regulator	Ontario
G. Meek	Penhold Fire Department	Authorities Having Jurisdiction / Regulator	Alberta
J.R. Nerat	National Presto Industries Inc.	Producer	USA
K. Pate	Amerex Corporation	Producer	USA
D. Pelton	National Association of Fire Equipment Distributors (NAFED)	Supply Chain	USA
G. Schultz	City of Toronto	Authorities Having Jurisdiction / Regulator	Ontario
I. Shearer	Strike First Corporation	Producer	Canada
B. Shugarman	UL Solutions	Testing & Standards Org.	USA
D. Tiller	Office of the Fire Marshal	Authorities Having Jurisdiction / Regulator	Ontario
G. Vestergom Jr.	Unifoam Company Ltd.	Producer	Canada
N. Weeks	UL Standards & Engagement	Project Manager (Non-voting)	USA

This list represents the membership at the time the Committee balloted on the final text of this edition. 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.

CONTENTS

ULC Preamble....5

Preface....11

INTRODUCTION

1 SCOPE....13
2 Units of Measurement....13
3 Reference Publications....13
4 Components....13
5 GLOSSARY....13

CONSTRUCTION

6 General....14
7 Cylinders....16
8 Joints....16
9 Caps, Valves, Closures, and Pressure Relief....16
10 Gaskets and "O" Rings....17
11 Filling Density....17
12 Pressure Gauges and Indicators....17
13 Puncturing Mechanisms....18
14 Tamper Indicators and Locking Devices....18
15 Hose....18
16 Couplings....19
17 Nozzles and Discharge Valves....19
18 Siphon Tubes....19
19 Handles and Mounting Devices....20
20 Hose Retainers – Wheeled Extinguishers....20
21 Running Gear – Wheeled Extinguishers....20
22 Clean Agents....20
23 Expellant Gases....21
24 Gas Cartridges, Expellant Gas Cylinders, and Regulators....21

PERFORMANCE

25 General....21
26 Fire Tests....21
27 Tamper Indicator and Locking Device Tests....22
28 Handle and Mounting Device Test....22
29 Operation Test....23
30 Discharge Duration Test....23
31 Rate of Flow Test....23
32 Intermittent Discharge Test....23
33 Operating Temperature Limits Test....23
34 Temperature Cycling Test....24
35 30-Day Elevated Temperature Test....24
36 High Temperature Exposure Test....24
37 Abnormal Operation Test....24
38 Pressure-Retention Test....24
39 Hydrostatic Pressure Test....25
39.1 Cylinders....25

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

39.2 Discharge valves, caps, and closures....25
39.3 Hose assemblies....26
39.4 Gas cartridges....26
39.5 Test method....26
40 Vibration Test....27
40.1 General....27
40.2 Mounting of test sample....27
40.3 Test orientation....27
40.4 Variable frequency test....27
40.5 Endurance test....28
41 Roadability and Rough Usage Tests....28
41.1 Roadability....28
41.2 Rough usage....28
41.3 Rough usage – operation....29
42 Siphon Pull Test....29
43 Aging Tests – Polymeric Materials....30
43.1 General....30
43.2 Exposure to extinguishing agent test....30
43.3 Light and water test....31
44 Elastomeric Parts Test....31
45 Salt Spray Corrosion Test....32
46 10-Day Moist Ammonia Air Stress Cracking Test....33
47 Servicing Tests....33
48 One-Year Time Leakage Test....34
49 Calibration Test – Gauges and Indicators....34
50 Burst Strength Test – Gauges and Indicators....34
51 Water Resistance Test – Gauges and Indicators....35
52 Leakage Test – Gauges and Indicators....35
53 Cycling Test – Pressure Indicators....35
54 Vibration Test – Pressure Gauges and Indicators....35
55 Overpressure Test – Gauges....35
56 Impulse Test – Gauges....36
57 Pressure Gauge Relief Test....36
58 Nameplate Exposure Tests....36
59 Nameplate Adhesion Test....37
60 Nameplate Abrasion Test....37

PACKAGING

61 General....37

MANUFACTURING AND PRODUCTION TESTS

62 General....38
63 Hydrostatic Pressure Test....38
63.1 Cylinders....38
63.2 Non-DOT or Non-TDGR gas cartridges....38
63.3 Hoses and couplings....39
64 One-Year Leakage Test....39

MARKING

65 General....39
66 Operating Instructions....41
67 Use Code Symbols....42

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

68 Recharging Instructions 42
69 Identification of Contents 42
70 Inspection Instructions 43

RECORD TAGS AND MANUALS

71 Record Tag 43
72 Manuals 43

TABLES

FIGURES

ANNEX A (NORMATIVE)

ANNEX B (NORMATIVE)

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

Preface

This is the common ULSE and ULC Standard for Halocarbon Clean Agent Fire Extinguishers. It is the Second edition of CAN/ULC 566, and the Third edition of ANSI/UL 2129.

This common Standard was prepared by UL Standards & Engagement Inc. (ULSE), ULC Standards, and the Extinguisher Technical Harmonization Committee.

This Standard was formally approved by the ULC Standards Committee on Portable Fire Extinguishers.

Only metric SI units of measurement are used in this Standard. If a value for measurement is followed by a value in other units in parentheses, the second value may be approximate. The first stated value is the requirement.

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.

Annexes A and B, identified as Normative, form a mandatory part of this Standard.

Note: 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.

Level of Harmonization

This Standard is published as an identical standard between ULSE and ULC Standards.

An identical standard is a standard that is the same in technical content except for conflicts in Codes and Governmental Regulations. Presentation shall be word for word except for editorial changes.

Interpretations

The interpretation by the standards development organization of an identical or equivalent standard shall be based on the literal text to determine compliance with the standard in accordance with the procedural rules of the standards development organization. If more than one interpretation of the literal text has been identified, a revision shall be proposed as soon as possible to each of the standards development organizations to more accurately reflect the intent.

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

INTRODUCTION

1 SCOPE

1.1 These requirements cover the construction and performance, exclusive of performance during fire tests, of portable halocarbon clean agent fire extinguishers. Halocarbon clean agent fire extinguishers are intended to be utilized in accordance with the Standard for Portable Fire Extinguishers, NFPA 10 and with the National Fire Code of Canada.

1.2 The requirements for performance during fire testing of halocarbon clean agent fire extinguishers are specified in the Binational Standard for Rating and Fire Testing of Fire Extinguishers, ANSI/UL 711 / CAN/ULC-S508.

1.3 As used in these requirements, the term "fire extinguisher" refers to all extinguishers or any part thereof covered by these requirements, unless specifically noted otherwise.

2 Units of Measurement

2.1 The metric unit shall be designated as the official unit for purposes of this standard. Where values of measurement are specified in both SI and English units, either unit is used. In cases of dispute, the metric unit shall be used.

3 Reference Publications

3.1 See Annex A for a list of publications referenced in this standard. 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. When the latest edition of a standard is not applicable, the appropriate edition is indicated accordingly in Annex A.

4 Components

4.1 Except as indicated in 4.2, a component of a product covered by this standard shall comply with the requirements for that component. A component shall comply with both the Underwriters Laboratories Inc. and the Underwriters' Laboratories of Canada standards for the component.

4.2 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.

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

4.4 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.

5 GLOSSARY

5.1 For the purpose of this Standard, the following definitions apply.

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