

CSA R7007:18

(reaffirmed 2023)



Sustainability standard for household microwave oven appliances



Legal Notice for Standards

Canadian Standards Association (operating as “CSA Group”) develops standards through a consensus standards development process approved by the Standards Council of Canada. This process brings together volunteers representing varied viewpoints and interests to achieve consensus and develop a standard. Although CSA Group administers the process and establishes rules to promote fairness in achieving consensus, it does not independently test, evaluate, or verify the content of standards.

Disclaimer and exclusion of liability

This document is provided without any representations, warranties, or conditions of any kind, express or implied, including, without limitation, implied warranties or conditions concerning this document’s fitness for a particular purpose or use, its merchantability, or its non-infringement of any third party’s intellectual property rights. CSA Group does not warrant the accuracy, completeness, or currency of any of the information published in this document. CSA Group makes no representations or warranties regarding this document’s compliance with any applicable statute, rule, or regulation.

IN NO EVENT SHALL CSA GROUP, ITS VOLUNTEERS, MEMBERS, SUBSIDIARIES, OR AFFILIATED COMPANIES, OR THEIR EMPLOYEES, DIRECTORS, OR OFFICERS, BE LIABLE FOR ANY DIRECT, INDIRECT, OR INCIDENTAL DAMAGES, INJURY, LOSS, COSTS, OR EXPENSES, HOWSOEVER CAUSED, INCLUDING BUT NOT LIMITED TO SPECIAL OR CONSEQUENTIAL DAMAGES, LOST REVENUE, BUSINESS INTERRUPTION, LOST OR DAMAGED DATA, OR ANY OTHER COMMERCIAL OR ECONOMIC LOSS, WHETHER BASED IN CONTRACT, TORT (INCLUDING NEGLIGENCE), OR ANY OTHER THEORY OF LIABILITY, ARISING OUT OF OR RESULTING FROM ACCESS TO OR POSSESSION OR USE OF THIS DOCUMENT, EVEN IF CSA GROUP HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES, INJURY, LOSS, COSTS, OR EXPENSES.

In publishing and making this document available, CSA Group is not undertaking to render professional or other services for or on behalf of any person or entity or to perform any duty owed by any person or entity to another person or entity. The information in this document is directed to those who have the appropriate degree of experience to use and apply its contents, and CSA Group accepts no responsibility whatsoever arising in any way from any and all use of or reliance on the information contained in this document.

CSA Group is a private not-for-profit company that publishes voluntary standards and related documents. CSA Group has no power, nor does it undertake, to enforce compliance with the contents of the standards or other documents it publishes.

Intellectual property rights and ownership

As between CSA Group and the users of this document (whether it be in printed or electronic form), CSA Group is the owner, or the authorized licensee, of all works contained herein that are protected by copyright, all trade-marks (except as otherwise noted to the contrary), and all inventions and trade secrets that may be contained in this document, whether or not such inventions and trade secrets are protected by patents and applications for patents. Without limitation, the unauthorized use, modification, copying, or disclosure of this document may violate laws that protect CSA Group’s and/or others’ intellectual property and may give rise to a right in CSA Group and/or others to seek legal redress for such use, modification, copying, or disclosure. To the extent permitted by treaty or by law, CSA Group reserves all intellectual property rights in this document.

Patent rights

Attention is drawn to the possibility that some of the elements of this standard may be the subject of patent rights. CSA Group shall not be held responsible for identifying any or all such patent rights. Users of this standard are expressly advised that determination of the validity of any such patent rights is entirely their own responsibility.

Authorized use of this document

This document is being provided by CSA Group for informational and non-commercial use only. The user of this document is authorized to do only the following:

If this document is in electronic form:

- load this document onto a computer for the sole purpose of reviewing it;
- search and browse this document; and
- print this document if it is in PDF form.

Limited copies of this document in print or paper form may be distributed only to persons who are authorized by CSA Group to have such copies, and only if this Legal Notice appears on each such copy.

In addition, users may not and may not permit others to

- alter this document in any way, or remove this Legal Notice from the attached standard;
- sell this document without authorization from CSA Group; or
- make an electronic copy of this document.

If you do not agree with any of the terms and conditions contained in this Legal Notice, you may not load or use this document or make any copies of the contents hereof, and if you do make such copies, you are required to destroy them immediately. Use of this document constitutes your acceptance of the terms and conditions of this Legal Notice.



Standards Update Service

CSA R7007:18

August 2018

Title: *Sustainability standard for household microwave oven appliances*

To register for e-mail notification about any updates to this publication

- go to www.csagroup.org/store/
- click on **Product Updates**

The **List ID** that you will need to register for updates to this publication is **7007-18-091**.

If you require assistance, please e-mail techsupport@csagroup.org or call 416-747-2233.

Visit CSA Group's policy on privacy at www.csagroup.org/legal to find out how we protect your personal information.

CSA R7007:18

***Sustainability standard for
household microwave oven
appliances***



*A trademark of the Canadian Standards Association, operating as "CSA Group"

ISBN 978-1-4883-1521-3



Association of Home Appliance Manufacturers
AHAM 7007-2018
Second Edition



CSA Group
CSA R7007-18
First Edition



Underwriters Laboratories Inc.
UL 7007
Second Edition

Sustainability Standard for Household Microwave Oven Appliances

July 30, 2018



ANSI/UL 7007-2018

Commitment for Amendments

This standard is issued jointly by the Association of Home Appliance Manufacturers (AHAM), the Canadian Standards Association (operating as “CSA Group”), and Underwriters Laboratories Inc. (UL). Comments or proposals for revisions on any part of the standard may be submitted to AHAM, CSA Group, or UL at anytime.

Copyright © 2018 by the Association of Home Appliance Manufacturers (AHAM)

All rights reserved.

The hard copy print version of this document shall be for individual use only.

The electronic file version of this document shall be for storage on one computer for purposes of viewing and/or printing one copy for individual use only.

This document shall not be reproduced in whole or in part by any means, and shall not be transmitted electronically or otherwise to a third person without the prior written permission of AHAM.

ISBN 978-1-4883-1521-3 © 2018 Canadian Standards Association

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

This Standard is subject to review within five years from the date of publication, and suggestions for its improvement will be referred to the appropriate committee. To submit a proposal for change, please send the following information to inquires@csagroup.org and include “Proposal for change” in the subject line: Standard designation (number); relevant clause, table, and/or figure number; wording of the proposed change; and rationale for the change.

To purchase CSA Group Standards and related publications, visit CSA Group’s Online Store at shop.csa.ca or call toll-free 1-800-463-6727 or 1-6-747-4044.

Copyright © 2018 Underwriters Laboratories Inc.

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

This ANSI/UL Standard for Safety consists of the Second Edition including revisions through July 30, 2018. The most recent designation of ANSI/UL 7007 as an American National Standard (ANSI) occurred on July 30, 2018. ANSI approval for a standard does not include the Cover Page, Transmittal Pages, Title Page (front and back), or the Preface. The National Difference Page and IEC Foreword are also excluded from the ANSI approval of IEC-based standards. Any other portions of this ANSI/UL standard that were not processed in accordance with ANSI/UL requirements are noted at the beginning of the impacted sections.

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

To purchase UL Standards, visit UL's Standards Sales Site at <http://www.shopulstandards.com/HowToOrder.aspx> or call toll-free 1-888-853-3503.

Currently in preview, click buy full versi

No Text on This Page

Currently in preview, click buy full version

CSA Technical Committee on Sustainability of Household Appliances

A.C. Chung	Chung Consulting & Advisory Ltd, Markham, Ontario <i>Category: General Interest</i>	<i>Chair</i>
J. Choo	LG Electronics, Inc., Changwon City, Gyeongnam, South Korea	<i>Non-voting</i>
M. Chowdhury	CSA Group Testing & Certification Inc, Toronto, Ontario	<i>Non-voting</i>
J.H. Chun	Samsung Electronics Co., Ltd., Pine Brook, New Jersey, USA	<i>Non-voting</i>
S.V. Gopal	Association of Home Appliance Manufacturers (AHAM), Washington, District of Columbia, USA	<i>Non-voting</i>
J. Hillard	Consumer Interest Alliance Inc (CIAI), Winnipeg, Manitoba <i>Category: User Interest</i>	
W. Huzar	Consumers Council of Canada, Victoria, British Columbia <i>Category: User Interest</i>	
P. Maddock	Panasonic Canada Inc., Mississauga, Ontario <i>Category: Producer Interest</i>	
R. Morrison	CSA Group Testing & Certification Inc, Toronto, Ontario	<i>Non-voting</i>
R. Mortazavi	Natural Resources Canada, Ottawa, Ontario <i>Category: General Interest</i>	
M. Southard	Whirlpool Corporation, Benton Harbor, Michigan, USA <i>Category: Producer Interest</i>	

H. Yoo

LG Electronics, Inc.,
Changwon City, Gyeongnam, South Korea
Category: Producer Interest

V. Mitchell

CSA Group,
Toronto, Ontario

Project Manager

Currently in preview, click buy full version

CONTENTS

Foreword	8
1 Scope	9
2 General	9
3 References	9
3.1 Normative references	9
3.2 Informative references	12
4 Definitions	12
5 General requirements	17
5.1 Units of measurement	17
5.2 Undated references	17
5.3 Attributes	17
5.4 Assessment	18
6 Point allocation system	18
7 Prerequisites	19
8 Audit scope and boundaries	19
9 Attributes, criteria, and metrics	21
9.1 Materials attribute	21
9.2 Attribute: Energy consumption during use	26
9.3 Attribute: Manufacturing and operations	27
9.4 Attribute: End-of-life management	33
9.5 Attribute: Innovation	36
10 Document retention and record keeping	37

Annex A (informative) Multi-attribute approach

A.1 Context	A1
A.2 Overall methodology	A2
A.2.1 General	A2
A.2.2 Development of value chain heat map template for use in hot spot analysis and identification of attributes for this Standard	A3
A.2.3 Literature review to identify preliminary hot spots	A5
A.2.4 Manufacturer interviews to identify preliminary hot spots	A6
A.2.5 Evaluation of preliminary results of hot spots to determine whether additional information is required	A9
A.2.6 Re-evaluation, weighting, and prioritization of hot spots	A10
A.2.7 Selection of final set of attributes for sustainability standard	A11
A.3 Conclusion	A14

Annex B (informative) Informative references**Annex C (informative) Environmental management systems****Annex D (informative) Pre-consumer and post-consumer recycled content****Annex E (informative) Drafting process**

E.1 General	E1
E.2 Purpose	E1
E.3 Principles	E1

Preface

This is the first edition of CSA R7007, the second edition of UL 7007, and the most recent version of AHAM 7007, Sustainability Standard for Microwave Oven Appliances.

This harmonized standard was prepared by the Association of Home Appliance Manufacturers, (AHAM), CSA Group and Underwriters Laboratories Inc. (UL). The efforts and support of the Technical Harmonization Committee are gratefully acknowledged.

This standard was prepared by CSA Technical Committee on Sustainability of Household Appliances under the jurisdiction of CSA Strategic Steering Committee on Business Management and Sustainability and has been formally approved by the CSA Technical Committee.

The environmental performance of household microwave oven appliances is commonly evaluated on the single environmental attribute of electricity consumption during use. This Standard takes a multi-attribute, life cycle approach to measuring a broad spectrum of environmental and social impacts of household microwave oven appliances as a means of assessing sustainability performance. The multi-attribute approach was developed using representative product life cycle assessment (LCA) information along with other key factors such as hot-spot or hot-button analyses influencing product environmental performance. The attributes and criteria in this Standard are drawn from a much larger list and reflect the understanding of the attributes and criteria that are most prominent in sustainable performance and over which the manufacturers of these products have control. This approach, detailed in Annex A, determined the environmental attributes of household microwave oven appliances for inclusion in this Standard. The authors acknowledge that revisions to this standard will be considered periodically and that future editions may consider a broader range of sustainability criteria.

It has been contemplated by all parties that this Standard will be updated to reflect new U.S. Department of Energy or Natural Resources Canada minimum energy performance standards for household microwave oven appliances products. Many of the measurements included in this Standard are unique and have not been conducted on other appliance categories. The Standard's committees expect to learn much from the application of this Second Edition in subsequent years. The use of this Standard and self-assessment by household microwave oven appliances manufacturers and external third-party assessment bodies will be used to improve the Standard in drafting the second and subsequent editions.

This Standard was written specifically for products placed on the market in the United States and Canada. At the present time, a number of the calculations are based on systems and designs of products in North America.