

CSA C22.2 No. 62133-2:20 (IEC 62133-2:2017, MOD) National Standard of Canada



CSA C22.2 No. 62133-2:20 Secondary cells and batteries containing alkaline or other non-acid electrolytes — Safety requirements for portable sealed secondary cells, and for batteries made from them, for use in portable applications — Part 2: Lithium systems (IEC 62133-2:2017, MOD)







Standards Council of Canada Conseil canadien des normes

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 negroes 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 format.

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 C22.2 No. 62133-2:20 January 2020

Title: Secondary cells and batteries containing alkaline or other non-acid electrolytes — Safety requirements for portable sealed secondary cells, and for batteries made from them, for use in portable applications — Part 2: Lithium systems

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

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

The List ID that you will need to register for updates to this publication is 2427127.

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

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

Canadian Standards Association (operating as "CSA Group"), under whose auspices this National Standard has been produced, was chartered in 1919 and accredited by the Standards Council of Canada to the National Standards system in 1973. It is a not-forprofit, nonstatutory, voluntary membership association engaged in standards development and certification activities.

CSA Group standards reflect a national consensus of producers and users — including manufacturers, consumers, retailers, unions and professional organizations, and governmental agencies. The standards are used widely by industry and commerce and often adopted by municipal, provincial, and federal governments in their regulations, particularly in the fields of health, safety, building and construction, and the environment.

Individuals, companies, and associations across Canada indicate their support for CSA Group's standards development by volunteering their time and skills to Committee work and supporting CSA Group's objectives through sustaining memberships. The more than 7000 committee volunteers and the 2000 sustaining memberships together form CSA Group's total membership from which its Directors are chosen. Sustaining memberships represent a major source of income for CSA Group's standards development activities.

CSA Group offers certification and testing services in support of and as an extension to its standards development activities. To ensure the integrity of its certification process, CSA Group regularly and continually audits and inspects products that bear the CSA Group Mark.

In addition to its head office and laboratory complex in Toronto, CSA Group has regional branch offices in major centres across Canada and inspection and testing agencies in eight countries. Since 1919, CSA Group has developed the necessary expertise to meet its corporate mission: CSA Group is an independent service organization whose mission is to provide an open and effective forum for activities facilitating the exchange of goods and services through the use of standards, certification and related services to meet national and international needs.

For further information on CSA Group services, write to CSA Group 178 Rexdale Boulevard Toronto, Ontario, M9W 1R3 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 <u>www.scc.ca</u>.

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 wellbeing, 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 <u>www.scc.ca</u>.

Standards Council of Canada 600-55 Metcalfe Street Ottawa, Ontario, K1P 6L5 Canada



Standards Council of Canada Conseil canadien des normes

Cette Norme Nationale du Canada est disponible en versions française et anglaise.

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 to judge its suitability for their particular purpose. *A trademark of the Canadian Standards Association, operating as "CSA Group"

CSA Technical Committee on General Requirements, CE Code, Part II

V. V. Gagachev	Eaton, Burlington, Ontario, Canada Category: Producer Interest	Chair
T. Olechna	Electrical Safety Authority, Mississauga, Ontario, Canada Category: Regulatory Authority	Vice-Chair
M. S. Anderson	SaskPower, Regina, Saskatchewan, Canada Category: Regulatory Authority	
G. Benjamin	ABB Installation Products Ltd., Dorval, Québec, Canada Category: Producer Interest	
G. Chopra	Electro-Federation Canada, Toronto, Ontario, Canada Category: Producer Interest	
P. Corby	City of Victoria, Victoria, British Columbia, Canada Category: Regulatory Authority	
P. Desilets	Leviton Canada, Pointe-Claire, Québec, Canada Category: Producer Interest	
W. Hassan	Northern Lights Asset Management Ltd., Oakville, Ontario, Canada Category: General Interest	
R. J. Kelly	Nunavut Department of Community and Government Services, Iqaluit, Nunavut, Canada Category: Regulatory Authority	
G. Lobay	CSA Consumer Network, Ottawa, Ontario, Canada Category: General Interest	

D. R. MacLeod	Nova Scotia Department of Labour and Advanced Education, Halifax, Nova Scotia, Canada Category: Regulatory Authority	
D. Mascarenhas	Brampton, Ontario, Canada Category: General Interest	
M. Smith	Kitchener, Ontario, Canada Category: General Interest	
A. Z. Tsisserev	AES Engineering Ltd., Vancouver, British Columbia, Canada Category: General Interest	
C. Chan	CSA Group, Toronto, Ontario, Canada	Project Manager

CSA Subcommittee on Batteries and Battery Systems

K. Fatih	National Research Council Canada, Vancouver, British Columbia, Canada	Chair
D. Pomerleau	Société de Transport de Montréal (STM), Montréal, Québec, Canada	Vice-Chair
L. T. Albert	Black & Decker (U.S.) Inc., Towson, Maryland, USA	
A. Amin	CSA Group, Cleveland, Ohio, USA	
P. Ferron	Surrette Battery Company Limited, Springhill, Nova Scotia, Canada	
D. O'Neill	Crown Battery of Canada Limited, Mississauga, Ontario, Canada	
C. Pizzurro	eCAMION Inc., Toronto, Ontario, Canada	
J. Seregelyi	Health Canada, Ottawa, Ontario, Canada	
E. Spek	TÜV SÜD Canada, Newmarket, Ontario, Canada	
R. Szymczyk	eCAMION Inc., Toronto, Ontario, Canada	
H. Toutounchian	VAVETek Inc., Aurora, Ontario, Canada	
A. van der Hoven	From First Principles, Maple Ridge, British Columbia, Canada	

C. Young Health Canada, Ottawa, Ontario, Canada

M. Mahmoudysepehr CSA Group, Toronto, Ontario, Canada Project Manager