

Secondary cells and batteries containing alkaline or other non-acid electrolytes - Safety requirements for secondary lithium cells and batteries, for use in industrial applications

## EESTI STANDARDI EESSÕNA

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English Version

Secondary cells and batteries containing alkaline or other non-acid electrolytes - Safety requirements for secondary lithium cells and batteries, for use in industrial applications  
(IEC 62619:2022)

Accumulateurs alcalins et autres accumulateurs à électrolyte non acide - Exigences de sécurité pour les accumulateurs au lithium pour utilisation dans des applications industrielles  
(IEC 62619:2022)

Akkumulatoren und Batterien mit alkalischen oder anderen nicht-säurehaltigen Elektrolyten - Sicherheitsanforderungen für Lithium-Akkumulatoren und -Batterien für die Verwendung in industriellen Anwendungen  
(IEC 62619:2022)

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Comité Européen de Normalisation Electrotechnique  
Europäisches Komitee für Elektrotechnische Normung

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

## European foreword

The text of document 21A/785/FDIS, future edition 2 of IEC 62619, prepared by SC 21A "Secondary cells and batteries containing alkaline or other non-acid electrolytes" of IEC/TC 21 "Secondary cells and batteries" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 62619:2022.

The following dates are fixed:

- latest date by which the document has to be implemented at national (dop) 2023-03-28 level by publication of an identical national standard or by endorsement
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In the official version, for Bibliography, the following notes have to be added for the standards indicated:

IEC 60730-1:2013 NOTE Harmonized as EN 60730-1:2016 (modified)

IEC 60812 NOTE Harmonized as EN IEC 60812

IEC 61000-4-2 NOTE Harmonized as EN 61000-4-2

IEC 61000-6-1 NOTE Harmonized as EN IEC 61000-6-1

IEC 61000-6-2 NOTE Harmonized as EN IEC 61000-6-2

IEC 61000-6-3 NOTE Harmonized as EN IEC 61000-6-3

IEC 61000-6-4 NOTE Harmonized as EN IEC 61000-6-4

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IEC 61513 NOTE Harmonized as EN 61513  
IEC 61960-3:2017 NOTE Harmonized as EN 61960-3:2017 (not modified)  
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# INTERNATIONAL STANDARD

## NORME INTERNATIONALE



**Secondary cells and batteries containing alkaline or other non-acid electrolytes – Safety requirements for secondary lithium cells and batteries, for use in industrial applications**

**Accumulateurs alcalins et autres accumulateurs à électrolyte non acide – Exigences de sécurité pour les accumulateurs au lithium pour utilisation dans des applications industrielles**



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## INTERNATIONAL ELECTROTECHNICAL COMMISSION

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**SECONDARY CELLS AND BATTERIES CONTAINING  
ALKALINE OR OTHER NON-ACID ELECTROLYTES –  
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This second edition cancels and replaces the first edition published in 2017. This edition constitutes a technical revision.

This edition includes the following significant technical changes with respect to the previous edition:

- a) new requirements for moving parts;
- b) addition of requirements for hazardous live parts;
- c) addition of requirements for battery system design;
- d) new requirements for system lock;
- e) new requirements for EMC;

f) addition of procedure of propagation test by laser.

The text of this International Standard is based on the following documents:

Draft	Report on voting
21A/785/FDIS	21A/787/RVD

Full information on the voting for its approval can be found in the report on voting indicated in the above table.

The language used for the development of this International Standard is English.

This document was drafted in accordance with ISO/IEC Directives, Part 2, and developed in accordance with ISO/IEC Directives, Part 1 and ISO/IEC Directives, IEC Supplement, available at [www.iec.ch/members\\_experts/refdocs](http://www.iec.ch/members_experts/refdocs). The main document types developed by IEC are described in greater detail at [www.iec.ch/standardsdev/publications](http://www.iec.ch/standardsdev/publications).

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# SECONDARY CELLS AND BATTERIES CONTAINING ALKALINE OR OTHER NON-ACID ELECTROLYTES – SAFETY REQUIREMENTS FOR SECONDARY LITHIUM CELLS AND BATTERIES, FOR USE IN INDUSTRIAL APPLICATIONS

## 1 Scope

This document specifies requirements and tests for the safe operation of secondary lithium cells and batteries used in industrial applications, including stationary applications.

When there exists an IEC International Standard specifying test conditions and requirements for cells used in special applications and which is in conflict with this document, the former takes precedence (e.g., IEC 62660 series on road vehicles).

The following are some examples of applications that utilize cells and batteries under the scope of this document:

- Stationary applications: telecom, uninterruptible power supplies (UPS), electrical energy storage system, utility switching, emergency power, and similar applications.
- Motive applications: forklift truck, golf cart, automated guided vehicle (AGV), railway vehicles, and marine vehicles, with the exception of road vehicles.

Since this document covers batteries for various industrial applications, it includes those requirements which are common and minimum to the various applications.

Electrical safety is included only as a part of the risk analysis of Clause 8. In regard to details for addressing electrical safety, the end use application standard requirements need to be considered.

This document applies to cells and batteries. If the battery is divided into smaller units, the smaller unit can be tested as the representative of the battery. The manufacturer clearly declares the tested unit. The manufacturer can add functions, which are present in the final battery to the tested unit.

This document addresses first life cells and batteries. Reuse, repurpose, second life use or similar are not taken into consideration by this document.

## 2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

IEC 62133-2:2017, *Secondary cells and batteries containing alkaline or other non-acid electrolytes – Safety requirements for portable sealed secondary lithium cells, and for batteries made from them, for use in portable applications – Part 2: Lithium systems*

IEC 62620:2014, *Secondary cells and batteries containing alkaline or other non-acid electrolytes – Secondary lithium cells and batteries for use in industrial applications*

ISO/IEC Guide 51, *Safety aspects – Guidelines for their inclusion in standards*