IEC 63218

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INTERNATIONAL STANDARD

NORME INTERNATIONALE

colour inside

Secondary cells and batteries containing alkaline or other non-acid electrolytes – Secondary lithium, nickel cadmium and nickel-metal hydride cells and batteries for portable applications – Guidance on environmental aspects

Accumulateurs alcalins et autres accumulateurs à électrolyte non acide – Accumulateurs et batteries d'accumulateurs lithium, nickel-cadmium et nickel-métal hydrure pour applications portables – Recommandations relatives aux aspects environnementaux

IEC 63218:2021-08(en-fr)

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SECONDARY CELLS AND BATTERIES CONTAINING ALKALINE OR OTHER NON-ACID ELECTROLYTES – SECONDARY LITHIUM, NICKEL CADMIUM AND NICKEL-METAL HYDRIDE CELLS AND BATTERIES FOR PORTABLE APPLICATIONS – GUIDANCE ON ENVIRONMENTAL ASPECTS

FOREWORD

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IEC 63218 has been prepared by subcommittee 21A: Secondary cells and batteries containing alkaline or other non-acid electrolytes, of IEC technical committee 21: Secondary cells and batteries. It is an International Standard.

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

FDIS	Report on voting
21A/763/FDIS	21A/768/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. The main document types developed by IEC are described in greater detail at www.iec.ch/standardsdev/publications.

The committee has decided that the contents of this document will remain unchanged until the stability date indicated on the IEC website under "http://webstore.iec.ch" in the data related to the specific document. At this date, the document will be

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- amended.

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INTRODUCTION

Secondary batteries, such as secondary lithium, nickel cadmium (Ni-Cd) and nickel-metal hydride cells and batteries, consume a large amount of non-renewable resources like copper, manganese, lithium, and nickel. In addition to that, Ni-Cd cells and batteries include hazardous material like cadmium as a negative electrode. Nevertheless, there is no international environmental standard for secondary batteries.

The primary purpose of this document is to contribute to improving environmental sustainability by providing:

a) basic consideration and information relating to the environmental aspects and environmental impact of secondary cells and batteries;

b) basic guidance for the collection and recycling of secondary cells and batteries;

c) basic guidance for environmental impact assessment across all life cycle stages for the designing and manufacturing of secondary cells and batteries;

d) useful information for interested parties regarding regulations on secondary cells and batteries.

Additionally various countries and regions have their own environmental regulations for secondary cells and batteries. These differing regulations could lead to trade barriers in the future. Therefore, the secondary purpose of this document is to avoid potential trade barrier issues by providing countries and regions that lack secondary battery collection and recycling regulations with guidance with which they can establish harmonized standardization with the international standard.

This document is not intended to be applied for the certification of specific products.

This document provides guidance and recommendations for the collection, recycling, environmental impact assessment, including design, manufacturing, transportation, storage and disposal of secondary cells and batteries.

Collection and recycling are activities that are conducted across national borders. Therefore, international standards are necessary in addition to transport regulations.

The expected users of this document are:

1) cell and battery manufacturers, end-product manufacturers, recycling organizations, transport organizations and distributors;

2) national, regional, and local authorities that establish the regulation of the collection and recycling, environmental impact assessment, including design, manufacturing, transportation, storage and disposal of secondary cells and batteries;

3) national, regional, and local authorities that revise the regulation of the collection and recycling, environmental impact assessment, including design, manufacturing, transportation, storage and disposal of secondary cells and batteries.

However, this document does not preclude other stakeholders from using this document.

National and regional standards, regulations and voluntary stewardship programmes are given priority in the matters covered in this document.

SECONDARY CELLS AND BATTERIES CONTAINING ALKALINE OR OTHER NON-ACID ELECTROLYTES – SECONDARY LITHIUM, NICKEL CADMIUM AND NICKEL-METAL HYDRIDE CELLS AND BATTERIES FOR PORTABLE APPLICATIONS – GUIDANCE ON ENVIRONMENTAL ASPECTS

1 Scope

This document provides requirements and recommendations on environmental aspects of secondary lithium, nickel cadmium and nickel-metal hydride cells and batteries for portable applications (hereafter referred to as “relevant secondary cells and batteries”).

Relevant secondary cells and batteries are specified within the scopes of IEC 61960-3, IEC 61960-4, IEC 61951-1, and IEC 61951-2.

NOTE Portable applications are defined in IEC 61960-3 as comprising hand-held equipment, transportable equipment, and movable equipment. See IEC 61960-3 for examples.

This document is not intended to be applied to batteries embedded in end-use products. Once the embedded battery is removed from an end-use product, this document becomes applicable to it.

The safety and control circuits as well as cases associated with relevant secondary batteries, except for those forming part of an end-use product, are covered by this document as parts of the relevant secondary batteries.

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 62133-2:2017/AMD1:—[1]

IEC 62902, *Secondary cells and batteries – Marking symbols for identification of their chemistry*

ISO 7000, *Graphical symbols for use on equipment – Registered symbols*
(available at http://www.graphical-symbols.info/equipment)

ISO 14021:2016, *Environmental labels and declarations – Self-declared environmental claims (Type II environmental labelling)*

ISO 14040:2006, *Environmental management – Life cycle assessment – Principles and framework*

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[1] Under preparation. Stage at the time of publication: IEC FDIS 62133-2:2017/AMD1:2021