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Secondary cells and batteries containing alkaline or other non-acid electrolytes -  
Mechanical tests for sealed portable secondary cells and batteries

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EUROPEAN STANDARD

**EN 61959**

NORME EUROPÉENNE

EUROPÄISCHE NORM

March 2004

ICS 29.220.99

English version

**Secondary cells and batteries containing alkaline  
or other non-acid electrolytes –  
Mechanical tests for sealed portable secondary cells and batteries  
(IEC 61959:2004)**

Accumulateurs alcalins et autres  
accumulateurs à électrolyte non acide -  
Essais mécaniques pour accumulateurs  
portables étanches  
(CEI 61959:2004)

Akkumulatoren und Batterien mit  
alkalischem oder anderen  
nichtsäurehaltigen Elektrolyten -  
Mechanische Prüfungen für tragbare  
gasdichte Akkumulatoren und Batterien  
(IEC 61959:2004)

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This European Standard was approved by CENELEC on 2004-03-01. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CENELEC member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CENELEC member into its own language and notified to the Central Secretariat has the same status as the official versions.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

**CENELEC**

European Committee for Electrotechnical Standardization  
Comité Européen de Normalisation Electrotechnique  
Europäisches Komitee für Elektrotechnische Normung

**Central Secretariat: rue de Stassart 35, B - 1050 Brussels**

## Foreword

The text of document 21A/393/FDIS, future edition 1 of IEC 61959, 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 was approved by CENELEC as EN 61959 on 2004-03-01.

The following dates were fixed:

- latest date by which the EN has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2004-12-01
- latest date by which the national standards conflicting with the EN have to be withdrawn (dow) 2007-03-01

Annex ZA has been added by CENELEC.

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## Endorsement notice

The text of the International Standard IEC 61959:2004 was approved by CENELEC as a European Standard without any modification.

In the official version, for Bibliography, the following notes have to be added for the standards indicated:

|             |      |   |
|-------------|------|---|
| IEC 61951-1 | NOTE | Harmonized as EN 61951-1:2003 (not modified). |
| IEC 61951-2 | NOTE | Harmonized as EN 61951-2:2003 (not modified). |
| IEC 61960   | NOTE | Harmonized as EN 61960:2004 (not modified).   |

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**Annex ZA**  
(normative)

**Normative references to international publications  
with their corresponding European publications**

The following referenced documents are indispensable for the application 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.

NOTE Where an international publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

| <u>Publication</u> | <u>Year</u>     | <u>Title</u>  | <u>EN/HD</u>                  | <u>Year</u>                |
|--------------------|-----------------|---|-------------------------------|----------------------------|
| IEC 60050-486      | - <sup>1)</sup> | International Electrotechnical Vocabulary (IEV)<br>Chapter 486: Secondary cells and batteries                                 | -                             | -                          |
| IEC 60068-2-6      | - <sup>1)</sup> | Environmental testing<br>Part 2: Tests - Test Fc: Vibration (sinusoidal)  | EN 60068-2-6                  | 1995 <sup>2)</sup>         |
| IEC 60068-2-32     | - <sup>1)</sup> | Part 2: Tests - Test Ed: Free fall  | EN 60068-2-32                 | 1993 <sup>2)</sup>         |
| IEC 60068-2-47     | - <sup>1)</sup> | Part 2-47: Test methods. Mounting of components, equipment and other articles for vibration, impact and similar dynamic tests | EN 60068-2-47<br>+ corr. June | 1999 <sup>2)</sup><br>2000 |

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1) Undated reference.

2) Valid edition at date of issue.

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INTERNATIONALE  
INTERNATIONAL  
STANDARD

CEI  
IEC

61959

Première édition  
First edition  
2004-01

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Commission Electrotechnique Internationale  
International Electrotechnical Commission  
Международная Электротехническая Комиссия

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For price, see current catalogue*

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## INTERNATIONAL ELECTROTECHNICAL COMMISSION

**SECONDARY CELLS AND BATTERIES CONTAINING  
ALKALINE OR OTHER NON-ACID ELECTROLYTES –  
MECHANICAL TESTS FOR SEALED PORTABLE  
SECONDARY CELLS AND BATTERIES**

## FOREWORD

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International Standard IEC 61959 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.

The text of this standard is based on the following documents:

|              |                  |
|--------------|------------------|
| FDIS         | Report on voting |
| 21A/393/FDIS | 21A/397/RVD      |

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

This publication has been drafted in accordance with the ISO/IEC Directives, Part 2.