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NSAI Standards

Irish Standard
I.S. EN 62877-1:2016

Electrolyte and water for vented lead acid accumulators - Part 1: Requirements for electrolyte

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EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 62877-1

May 2016

ICS 29.220.20

English Version

Electrolyte and water for vented lead acid accumulators - Part 1: Requirements for electrolyte (IEC 62877-1:2016)

Electrolyte et eau pour accumulateurs plomb-acide ouverts - Partie 1: Exigences pour l'électrolyte (IEC 62877-1:2016)

Elektrolyte und Wasser für geschlossene Blei-Säure-Batterien - Teil 1: Anforderungen an Elektrolyte (IEC 62877-1:2016)

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Ref. No. EN 62877-1:2016 E

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European foreword

The text of document 21/874/FDIS, future edition 1 of IEC 62877-1, prepared by IEC/TC 21 "Secondary cells and batteries" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 62877-1:2016.

The following dates are fixed:

- latest date by which the document has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2016-12-02
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IEC 62485-3	NOTE	Harmonized as EN 62485-3.

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Annex ZA
(normative)

Normative references to international publications with their corresponding European publications

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Publication	Year	Title	EN/HD	Year
IEC 62877-2	-	Electrolyte and water for vented lead acid accumulators - Part 2: Requirements for water	EN 62877-2	-

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IEC 62877-1

Edition 1.0 2016-01

INTERNATIONAL STANDARD

NORME INTERNATIONALE

Electrolyte and water for vented lead acid accumulators – Part 1: Requirements for electrolyte

Électrolyte et eau pour accumulateurs plomb-acide ouverts – Partie 1: Exigences pour l'électrolyte

IEC 62877-1:2016-01(en-fr)

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IEC 62877-1

Edition 1.0 2016-01

INTERNATIONAL STANDARD

NORME INTERNATIONALE

Electrolyte and water for vented lead acid accumulators – Part 1: Requirements for electrolyte

Électrolyte et eau pour accumulateurs plomb-acide ouverts – Partie 1: Exigences pour l'électrolyte

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

ELECTROLYTE AND WATER FOR VENTED LEAD ACID ACCUMULATORS –

Part 1: Requirements for electrolyte

FOREWORD

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International Standard IEC 62877-1 has been prepared by IEC technical committee 21: Secondary cells and batteries.

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

FDIS	Report on voting
21/874/FDIS	21/881/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.

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A list of all parts of the IEC 62877 series can be found, under the general title *Electrolyte and water for vented lead acid accumulators*, on the IEC website.

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ELECTROLYTE AND WATER FOR VENTED LEAD ACID ACCUMULATORS –

Part 1: Requirements for electrolyte

1 Scope

This part of IEC 62877 applies to electrolyte and their components used for filling vented lead-acid batteries, for example dry charged cells or batteries, and for electrolyte replacement or electrolyte density adjustment of batteries in operation. This international standard defines the composition, purity and properties of electrolyte to be applied where specific instructions from the battery manufacturer are not available.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

IEC 62877-2, *Electrolyte and water for vented lead acid accumulators – Part 2: Requirements for water*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply

3.1
electrolyte
diluted sulfuric acid (H_2SO_4) for lead-acid accumulators

Note 1 to entry: The electrolyte is prepared by mixing concentrated sulfuric acid or sulfuric acid with high density of $d > 1{,}30$ kg/l and purified water to achieve the density values specified by the battery manufacturer or specified in standards related to the type and battery design in question for a defined state of charge. Its purity meet the requirements laid down in Table 3.

Note 2 to entry: Concentrated sulfuric acid is a colorless, highly corrosive and etching liquid with a density 1,84 kg/l.

3.2
water
purified water (H_2O) used for the preparation of electrolyte for batteries and for the replacement (topping up) of water loss in the operating electrolyte due to decomposition of water by overcharging and evaporation

Note 1 to entry: Purified water meet the requirements specified in IEC 62877-2.

3.3
filling electrolyte
diluted sulfuric acid to be used for the first filling of batteries or for the replacement of contaminated operating electrolyte

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