AS/NZS 61241.3:1999
IEC 61241-3:1997

Australian/New Zealand Standard™

Electrical apparatus for use in the presence of combustible dust

Part 3: Classification of areas where combustible dusts are or may be present

This Joint Australian/New Zealand Standard was prepared by Joint Technical Committee MS/11, Classification of Hazardous Areas. It was approved on behalf of the Council of Standards Australia on 18 November 1999 and on behalf of the Council of Standards New Zealand on 22 November 1999. It was published on 5 December 1999.

The following interests are represented on Committee MS/11:

Association of Consulting Engineers Australia
Auckland Regional Chamber of Commerce
Australian Association of Certification Bodies
Australian Gas Association
Australian Industry Group
Australian Liquified Petroleum Gas Association
Australian Paint Manufacturers Federation
Department of Infrastructure, Energy and Resources, Tasmania
Department of Labour, New Zealand
Department of Mines and Energy, Qld
Electricity Supply Association of Australia
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Institution of Engineers Australia
Institution of Professional Engineers, New Zealand
LPG Association of New Zealand
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National Electrical and Communications Association
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Detailed information about joint Australian/New Zealand Standards can be found by visiting the Standards Australia web site at www.standards.com.au or Standards New Zealand web site at www.standard.co.nz and looking up the relevant Standard in the on-line catalogue.

Alternatively, both organizations publish an annual printed Catalogue with full details of all current Standards. For more frequent listings or notification of revisions, amendments and withdrawals, Standards Australia and Standards New Zealand offer a number of update options. For information about these services, users should contact their respective national Standards organization.

We also welcome suggestions for improvement in our Standards, and especially encourage readers to notify us immediately of any apparent inaccuracies or ambiguities. Please address your comments to the Chief Executive of either Standards Australia International or Standards New Zealand at the address shown on the back cover.

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Part 3: Classification of areas where combustible dusts are or may be present

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PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee MS/11, Classification of Hazardous Areas, with the assistance of the Joint Subcommittee EL/14/5, *Dust and Plenum Systems*, to supersede AS 2430.2—1986, *Classification of hazardous areas* Part 2: *Combustible dusts* and NZS 6101:2:1990, *Classification of hazardous areas* Part 2: *Combustible dusts*.

This Standard is identical with and has been reproduced from IEC 61241-3:1997, *Electrical apparatus for use in the presence of combustible dust*—Part 3: *Classification of areas where combustible dusts are or may be present.*

The objective of this Standard is to provide manufacturers and installers of electrical equipment, as well as electrical inspecting authorities, with classifications of areas where explosive dust/air mixtures and combustible dust layers are present, in order to permit the proper selection of electrical apparatus for use in such areas.

In January 1997, the IEC commenced numbering its Standards from 60000 by adding 60000 to the number of each existing Standard. This coordinates IEC numbering with ISO numbering. During the transition period an IEC Standard might be identified by its new number or its old number (for example, IEC 60050 or IEC 50).

This Standard is part of a series covering electrical apparatus for use in the presence of combustible dust which comprises the following:

AS/NZS	
61241	Electrical apparatus for use in the presence of combustible dust
61241.1.1	Part 1.1: Electrical apparatus protected by enclosures and surface temperature limitation—Specification for apparatus
61241.1.2	Part 1.2: Electrical apparatus protected by enclosures and surface temperature limitation—Selection, installation and maintenance
61241.2.1	Part 2.1: Test methods—Methods for determining the minimum ignition temperatures of dust
61241.2.2	Part 2.2: Test methods—Method for determining the electrical resistivity of dust in layers
61241.2.3	Part 2.3: Test methods—Method for determining minimum ignition energy of dust/air mixtures
61241.3	Part 3: Classification of areas where combustible dusts are or may be present (this Standard)

At this stage other Standards are being developed by IEC for electrical equipment using alternate protection techniques suitable for dust hazardous areas—pressurization, intrinsic safety and encapsulation.

Additional informative annexes are being prepared to be added to this Standard, in due course. These annexes will give further information on the following four aspects:

Regulatory requirements	Guidance on the role of regulatory authorities such as O.H.S.
Explanations of the Standard	To expand on the meanings of terms used in the classification process such as ‘inside containment’ and ‘housekeeping’.
Dust characteristics	To include the latest data available on the dusts characteristics such as cloud ignition temperature for a range of commonly encountered materials.

Examples of area classification	Grain storage, flour mills, dairy powder manufacturing plants, pharmaceutical plants, and others.

As this Standard is reproduced from an International Standard full point should be substituted for a comma when referring to a decimal marker.

The term ‘informative’ has been used in this Standard to define the application of the annex to which it applies. An ‘informative’ annex is only for information and guidance.