

Australian/New Zealand Standard™

## **Explosive atmospheres**

### **Part 20.1: Material characteristics for gas and vapour classification — Test methods and data (ISO/IEC 80079-20- 1:2017, (ED. 1.0)/COR1:2018, MOD)**



AS/NZS 80079.20.1:2019

This Joint Australian/New Zealand Standard™ was prepared by Joint Technical Committee EL-014, Equipment for Explosive Atmospheres. It was approved on behalf of the Council of Standards Australia on 12 November 2019 and by the New Zealand Standards Approval Board on 4 December 2019.

This Standard was published on 20 December 2019.

The following are represented on Committee EL-014:

- Auckland Regional Chamber of Commerce
- Australian Chamber of Commerce and Industry
- Australian Industry Group
- Australian Institute of Petroleum
- Australian Petroleum Production and Exploration Association
- Australian Pipelines and Gas Association
- Aviation & Marine Engineers Association
- Bureau of Steel Manufacturers of Australia
- Business New Zealand
- Communications, Electrical and Plumbing Union — Electrical Division (Australia)
- Department of Natural Resources, Mines and Energy (Queensland)
- Electrical Compliance Testing Association of Australia
- Electrical Safety New Zealand
- Engineering New Zealand
- Engineers Australia
- Institute of Electrical Inspectors (Australia)
- Institute of Instrumentation, Control and Automation Australia
- Master Electricians (New Zealand)
- Mining Electrical and Mining Mechanical Engineering Society (Australia)
- NSW Department of Planning, Industry and Environment
- SafeWork NSW
- University of Newcastle
- WorkSafe New Zealand

This Standard was issued in draft form for comment as DR AS/NZS 80079.20.1:2019.

### **Keeping Standards up-to-date**

Ensure you have the latest versions of our publications and keep up-to-date about Amendments, Rulings, Withdrawals, and new projects by visiting:

[www.standards.org.au](http://www.standards.org.au)

[www.standards.govt.nz](http://www.standards.govt.nz)

ISBN 978 1 76072 677 5

# Australian/New Zealand Standard™

## **Explosive atmospheres**

### **Part 20.1: Material characteristics for gas and vapour classification — Test methods and data (ISO/IEC 80079-20-1:2017, (ED. 1.0)/COR1:2018, MOD)**

First published as AS/NZS 80079.20.1:2019.

#### **COPYRIGHT**

© ISO/IEC 2019 — All rights reserved

© Standards Australia Limited/the Crown in right of New Zealand, administered by the New Zealand Standards Executive 2019

All rights are reserved. No part of this work may be reproduced or copied in any form or by any means, electronic or mechanical, including photocopying, without the written permission of the publisher, unless otherwise permitted under the Copyright Act 1968 (Cth) or the Copyright Act 1994 (New Zealand).

## Preface

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee EL-014, Equipment for Explosive Atmospheres.

The objective of this Standard is to provide guidance on classification of gases and vapours. It describes a test method intended for the measurement of the maximum experimental safe gaps (MESG) for gas-air mixtures or vapour-air mixtures under normal conditions of temperature and pressure (20 °C, 101,3 kPa) so as to permit the selection of an appropriate group of equipment. This document also describes a test method intended for use in the determination of the auto-ignition temperature (AIT) of a vapour-air mixture or gas-air mixture at atmospheric pressure, so as to permit the selection of an appropriate temperature class of equipment.

Values of chemical properties of materials are provided to assist in the selection of equipment to be used in hazardous areas. Further data may be added as the results of validated tests become available.

The materials and the characteristics included in a table (see Annex B) have been selected with particular reference to the use of equipment in hazardous areas. The data in this document have been taken from a number of references which are given in the bibliography.

These methods for determining the MESG or the AIT may also be used for gas-air-inert mixtures or vapour-air-inert mixtures. However, data on air-inert mixtures are not tabulated.

This Standard is an adoption with national modifications, and has been reproduced from, ISO/IEC 80079-20-1:2017, *Explosive atmospheres – Part 20-1: Material characteristics for gas and vapour classification – Test methods and data* and its Corrigendum 1 (2018). The modifications are additional requirements and are set out in [Appendix ZZ](#), which has been added at the end of the source text.

[Appendix ZZ](#) lists the variations to ISO/IEC 80079-20-1:2017 for the application of this Standard in Australia and New Zealand.

As this document has been reproduced from an International Standard, the following applies:

- (a) In the source text “this part of ISO/IEC 80079” should read “this Australian/New Zealand Standard”.
- (b) A full point substitutes for a comma when referring to a decimal marker.

Australian or Australian/New Zealand Standards that are identical adoptions of international normative references may be used interchangeably. Refer to the online catalogue for information on specific Standards.

The terms “normative” and “informative” are used in Standards to define the application of the appendices or annexes to which they apply. A “normative” appendix or annex is an integral part of a Standard, whereas an “informative” appendix or annex is only for information and guidance.

## NOTES

This is a free preview. Purchase the entire publication at the link below:

[Product Page](#)

- 
- [Looking for additional Standards? Visit Intertek Inform Infostore](#)
  - [Learn about LexConnect, All Jurisdictions, Standards referenced in Australian legislation](#)
-