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Irish Standard  
I.S. EN ISO 10156:2010

# Gases and gas mixtures - Determination of fire potential and oxidizing ability for the selection of cylinder valve outlets (ISO 10156:2010)

## I.S. EN ISO 10156:2010

*Incorporating amendments/corrigenda/National Annexes issued since publication:*  
EN ISO 10156:2010/AC:2010

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Gases and gas mixtures - Determination of fire potential and oxidizing ability for the selection of cylinder valve outlets - Technical Corrigendum 1 (ISO 10156:2010/Cor 1:2010)

Gaz et mélanges de gaz - Détermination du potentiel d'inflammabilité et d'oxydation pour le choix des raccords de sortie de robinets - Rectificatif technique 1 (ISO 10156:2010/Cor 1:2010)

Gase und Gasgemische - Bestimmung der Brennbarkeit und des Oxidationsvermögens zur Auswahl von Ventilausgängen (ISO 10156:2010/Cor 1:2010)

This corrigendum becomes effective on 14 July 2010 for incorporation in the three official language versions of the EN.

Ce corrigendum prendra effet le 14 juillet 2010 pour incorporation dans les trois versions linguistiques officielles de la EN.

Die Berichtigung tritt am 14. Juli 2010 zur Einarbeitung in die drei offiziellen Sprachfassungen der EN in Kraft.



EUROPEAN COMMITTEE FOR STANDARDIZATION  
COMITÉ EUROPÉEN DE NORMALISATION  
EUROPÄISCHES KOMITEE FÜR NORMUNG

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## **Foreword**

The text of ISO 10156:2010/Cor 1:2010 has been prepared by Technical Committee ISO/TC 58 “Gas cylinders” of the International Organization for Standardization (ISO) and has been taken over as EN ISO 10156:2010/AC:2010 by Technical Committee CEN/TC 23 “Transportable gas cylinders” the secretariat of which is held by BSI.

### **Endorsement notice**

The text of ISO 10156:2010/Cor 1:2010 has been approved by CEN as a EN ISO 10156:2010/AC:2010 without any modification.

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**I.S. EN ISO 10156:2010**  
**INTERNATIONAL STANDARD ISO 10156:2010**  
**TECHNICAL CORRIGENDUM 1**

Published 2010-09-01

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION • МЕЖДУНАРОДНАЯ ОРГАНИЗАЦИЯ ПО СТАНДАРТИЗАЦИИ • ORGANISATION INTERNATIONALE DE NORMALISATION

## **Gases and gas mixtures — Determination of fire potential and oxidizing ability for the selection of cylinder valve outlets**

### **TECHNICAL CORRIGENDUM 1**

*Gaz et mélanges de gaz — Détermination du potentiel d'inflammabilité et d'oxydation pour le choix des raccords de sortie de robinets*

*RECTIFICATIF TECHNIQUE 1*

Technical Corrigendum 1 to ISO 10156:2010 was prepared by Technical Committee ISO/TC 58, *Gas cylinders*, Subcommittee SC 2, *Cylinder fittings*.

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*Page 9, Table 2 b)*

Change the UN No. for Acetaldehyde from “1088” to “1089”.

*Page 10, Table 2 b)*

Change the UN No. for Ethyl formate from “1089” to “1190”.

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English Version

**Gases and gas mixtures - Determination of fire potential and oxidizing ability for the selection of cylinder valve outlets (ISO 10156:2010)**

Gaz et mélanges de gaz - Détermination du potentiel d'inflammabilité et d'oxydation pour le choix des raccords de sortie de robinets (ISO 10156:2010)

Gase und Gasgemische - Bestimmung der Brennbarkeit und des Oxidationsvermögens zur Auswahl von Ventilausgängen (ISO 10156:2010)

This European Standard was approved by CEN on 18 March 2010.

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EUROPÄISCHES KOMITEE FÜR NORMUNG

**Management Centre: Avenue Marnix 17, B-1000 Brussels**

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## **Foreword**

This document (EN ISO 10156:2010) has been prepared by Technical Committee ISO/TC 58 "Gas cylinders" in collaboration with Technical Committee CEN/TC 23 "Transportable gas cylinders", the secretariat of which is held by BSI.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by October 2010, and conflicting national standards shall be withdrawn at the latest by October 2010.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

This document supersedes EN 720-2:1996, EN ISO 10156-2:2005.

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**INTERNATIONAL  
STANDARD**

**ISO  
10156**

Third edition  
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**Gases and gas mixtures — Determination  
of fire potential and oxidizing ability for  
the selection of cylinder valve outlets**

*Gaz et mélanges de gaz — Détermination du potentiel d'inflammabilité  
et d'oxydation pour le choix des raccords de sortie de robinets*



Reference number  
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## Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

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ISO 10156 was prepared by Technical Committee ISO/TC 58, *Gas cylinders*, Subcommittee SC 2, *Cylinder fittings*.

This third edition of ISO 10156 cancels and replaces ISO 10156:1996 and ISO 10156-2:2005.

It gives updated data for flammability and oxidizing ability.



## **Introduction**

ISO 5145 <sup>[1]</sup> and other related standards establish practical criteria for the determination of outlet connections of cylinder valves. These criteria are based on certain physical and chemical properties of the gases. In particular, the flammability in air and the oxidizing ability are considered.

One of the potential complications that prompted the development of this International Standard is that whilst there are abundant data in the literature relating to pure gases, differences can be found, depending upon the test methods employed; in the case of gas mixtures, data in the literature are often incomplete or even non-existent.

The initial aim of this International Standard was to eliminate the ambiguities in the case of differences in the literature, and above all, to supplement existing data (mainly in the case of gas mixtures).

Subsequently, this International Standard was used for other purposes than the selection of cylinder valve outlets, such as establishing flammability and oxidizing potential data for labelling according to international transport regulations and dangerous substances regulations, under the umbrella of the Globally Harmonized System (GHS).



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