



BSI Standards Publication

Gas cylinders — Gas and gas mixtures — Determination of toxicity for the selection of cylinder valve outlets

National foreword

This British Standard is the UK implementation of EN ISO 10298:2020+A1:2022. It is identical to ISO 10298:2018 incorporating amendment 1:2021. It supersedes BS EN ISO 10298:2020, which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee PVE/3/1, Gas containers - Valve fittings for gas containers.

A list of organizations represented on this committee can be obtained on request to its committee manager.

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Amendments/corrigenda issued since publication

Date	Text affected
31 May 2021	This corrigendum renumbers BS ISO 10298:2018 as BS EN ISO 10298:2020
28 February 2023	Implementation of ISO amendment 1:2021 with CEN endorsement A1:2022: Clause 4.3, Formula 1 replaced

English Version

Gas cylinders - Gases and gas mixtures - Determination of
toxicity for the selection of cylinder valve outlets (ISO
10298:2018)

Bouteilles à gaz - Gaz et mélanges de gaz -
Détermination de la toxicité pour le choix des raccords
de sortie de robinets (ISO 10298:2018)

Gasflaschen - Gase und Gasgemische - Bestimmung der
Toxizität zur Auswahl von Ventilausgängen (ISO
10298:2018)

This European Standard was approved by CEN on 28 September 2020.

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European foreword

The text of ISO 10298:2018 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 10298:2020 by 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of an identical text or by endorsement, at the latest by April 2021, and conflicting national standards shall be withdrawn at the latest by April 2021.

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Endorsement notice

The text of ISO 10298:2018 has been approved by CEN as EN ISO 10298:2020 without any modification.

European foreword to amendment A1

The text of ISO 10298:2018/Amd 1:2021 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 10298:2020/A1:2022 by Technical Committee CEN/TC 23 "Transportable gas cylinders" the secretariat of which is held by BSI.

This Amendment to the European Standard EN ISO 10298:2020 shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by March 2023, and conflicting national standards shall be withdrawn at the latest by March 2023.

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Endorsement notice

The text of ISO 10298:2018/Amd 1:2021 has been approved by CEN as EN ISO 10298:2020/A1:2022 without any modification.

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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.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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This document was prepared by ISO/TC 58 *Gas cylinders*, SC 2, *Cylinder fittings*.

This third edition cancels and replaces the second edition (ISO 10298:2010), which has been technically revised.

The main changes compared to the previous edition are as follows:

- The Scope and Clause 4 have been clarified.
- The terms and definitions in Clause 3 have been changed and, in particular, the reference to FTSC codes (that were in ISO 5145) was changed to ISO 14456.
- Some LC50 values have been updated.

Introduction

ISO 5145 specifies the dimensions of different valve outlets for different compatible gas groups. These compatible gas groups are determined according to practical criteria defined in ISO 14456.

These criteria are based on certain physical, chemical, toxic and corrosive properties of the gases. In particular, the tissue corrosiveness is considered in this document.

The aim of this document is to assign for each gas a classification category that takes into account the toxicity by inhalation of the gas. For gas mixtures containing toxic components a calculation based on the method specified in the GHS is proposed.

Since the publication of the first edition of ISO 10298, this International Standard has been used for other purposes than the selection of cylinder valve outlets, e.g. providing toxicity data for the classification of gas and gas mixtures according to the international transport regulations and according to the classification of dangerous substances regulations, which since 2003 is under the umbrella of the Globally Harmonized System (GHS).

