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**Gaseous fire-extinguishing  
systems — Physical properties and  
system design —**

Part 13:  
**IG-100 extinguishant**

*Systèmes d'extinction d'incendie utilisant des agents gazeux —  
Propriétés physiques et conception des systèmes —*

*Partie 13: Agent extincteur IG-100*



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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](http://www.iso.org/directives)).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see [www.iso.org/patents](http://www.iso.org/patents)).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT), see the following URL: [Foreword — Supplementary information](#).

The committee responsible for this document is ISO/TC 21, *Equipment for fire protection and fire fighting*, Subcommittee SC 8, *Gaseous media firefighting systems using gas*.

This third edition cancels and replaces the second edition (ISO 14520-13:2005), which has been technically revised.

ISO 14520 consists of the following parts, under the general title *Gaseous fire-extinguishing systems — Physical properties and system design*:

- Part 1: *General requirements*
- Part 2: *CF<sub>3</sub>I extinguishant*
- Part 5: *FK-5-1-12 extinguishant*
- Part 6: *HCFC Blend A extinguishant*
- Part 8: *HFC 125 extinguishant*
- Part 9: *HFC 227ea extinguishant*
- Part 10: *HFC 23 extinguishant*
- Part 11: *HFC 236fa extinguishant*
- Part 12: *IG-01 extinguishant*
- Part 13: *IG-100 extinguishant*
- Part 14: *IG-55 extinguishant*
- Part 15: *IG-541 extinguishant*

Parts 3, 4, and 7, which dealt with FC-2-1-8, FC-3-1-10, and HCFC 124 extinguishants, respectively, have been withdrawn, as these types are no longer manufactured.

# Gaseous fire-extinguishing systems — Physical properties and system design —

## Part 13: IG-100 extinguishant

### 1 Scope

This part of ISO 14520 contains specific requirements for gaseous fire-extinguishing systems, with respect to the IG-100 extinguishant. It includes details of physical properties, specification, usage and safety aspects.

This part of ISO 14520 covers systems operating at nominal pressures of 200 bar at 15 °C and 300 bar at 15 °C. This does not preclude the use of other systems, although design data for other pressures are not available at this time.

### 2 Normative reference

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.

ISO 14520-1, *Gaseous fire-extinguishing systems — Physical properties and system design — Part 1: General requirements*

### 3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 14520-1 apply.

### 4 Characteristics and uses

#### 4.1 General

Extinguishant IG-100 shall comply with the specification shown in [Table 1](#).

IG-100 is a colourless, odourless, electrically non-conductive gas with a density approximately the same as that of air.

The physical properties are shown in [Table 2](#).

IG-100 extinguishes fires mainly by a reduction of oxygen concentration in the atmosphere of the hazard enclosure.