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

**Part 14:
IG-55 extinguishant**

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

Partie 14: Agent extincteur IG-55



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Contents

	Page
Foreword	iv
1 Scope	1
2 Normative reference	1
3 Terms and definitions	1
4 Characteristics and uses	1
4.1 General.....	1
4.2 Use of IG-55 systems.....	2
5 Safety of personnel	5
6 System design	6
6.1 Fill pressure.....	6
6.2 Superpressurization.....	6
6.3 Extinguishant quantity.....	6
7 Environmental properties	7

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).

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).

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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 14520-14:2005), 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: *CF₃I* 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 14: IG-55 extinguishant

1 Scope

This part of ISO 14520 contains specific requirements for gaseous fire-extinguishing systems, with respect to the IG-55 extinguishant. It includes details of physical properties, specification, usage and safety aspects.

This part of ISO 14520 covers systems operating at nominal pressures of 150 bar at 15 °C, 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 14520-1:2006, *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

IG-55 is a colourless, odourless, electrically non-conductive gas with a density approximately the same as that of air.

It is an inert gas mixture consisting nominally of 50 % argon and 50 % nitrogen. The mixture specification for IG-55 is as follows:

- a) argon percentage range (50 ± 5) %
- b) nitrogen percentage range (50 ± 5) %

Extinguishant IG-55 shall comply with the specification shown in [Table 1](#). The physical properties are shown in [Table 2](#). IG-55 extinguishes fires by reduction of the oxygen concentration in the atmosphere of the hazard enclosure.