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

Part 5: FK-5-1-12 extinguishant

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

Partie 5: Agent extincteur FK-5-1-12

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Foreword

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This document was prepared by Technical Committee ISO/TC 21, *Equipment for fire protection and fire fighting*, Subcommittee SC 8, *Gaseous media and firefighting systems using gas*.

This fourth edition cancels and replaces the third edition (ISO 14520-5:2019), which has been technically revised.

The main changes are as follows:

— new specifications for dimers have been added to Table 1.

A list of all parts in the ISO 14520 series can be found on the ISO website.

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

Part 5:
FK-5-1-12 extinguishant

1 Scope

This document contains specific requirements for gaseous fire-extinguishing systems, with respect to FK-5-1-12 extinguishant. It includes details of physical properties, specifications, usage and safety aspects.

This document is applicable only to systems operating at nominal pressures of 25 bar, 34,5 bar, 42 bar and 50 bar[1)] with nitrogen propellant. This does not preclude the use of other systems.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. 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.

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

— ISO Online browsing platform: available at https://www.iso.org/obp

— IEC Electropedia: available at https://www.electropedia.org/

4 Characteristics and uses

4.1 General

Extinguishant FK-5-1-12 shall conform to the specifications shown in Table 1.

FK-5-1-12 is a clear, colourless, almost odourless, electrically non-conductive gas with a density approximately 11 times that of air.

The physical properties are shown in Table 2.

FK-5-1-12 extinguishes fires mainly by physical means, but also by some chemical means.

1) 1 bar = 0,1 MPa = 10^5 Pa; 1 MPa = 1 N/mm^2.

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