International Standard ISO 7201

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Fire protection — Fire extinguishing media — Halogenated hydrocarbons

Protection contre l'incendie — Agents extincteurs — Hydrocarbures halogénés

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Foreword

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Draft International Standards adopted by the technical committees are circulated to the member bodies for approval before their acceptance as International Standards by the ISO Council.

International Standard ISO 7201 was developed by Technical Committee ISO/TC 21, *Equipment for fire protection and fire fighting*, and was circulated to the member bodies in January 1981.

It has been approved by the member bodies of the following countries :

Belgium	Iraq	South Africa, Rep. of
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Denmark	Korea, Rep. of	Sweden
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Fire protection — Fire extinguishing media — Halogenated hydrocarbons

0 Introduction

0.1 This International Standard is one of a series giving specifications for fire extinguishing media in common use and which are in need of standardization for fire fighting purposes. These specifications are designed to establish that the medium in question has at least a minimum useful fire extinguishing capability and can therefore be reasonably sold for fire extinguishing purposes.

0.2 Requirements for media used in particular equipment will form the subject of future International Standards.

0.3 The annexes to this International Standard provide important information on, and give recommendations relating to, the safety and use of halons, and they should be read carefully by all concerned with these media. They do not, however, form part of the specification.

1 Scope and field of application

This International Standard specifies requirements for the following halogenated hydrocarbons for use as fire extinguishing media :

a) halon 1211 [bromochlorodifluoromethane (CF_2ClBr)];

b) halon 1301 [bromotrifluoromethane (CF_3Br)].

Other halons may be considered at a later date once their safe and effective use has been demonstrated.

This International Standard does not deal with the conditions of use of these products in fire fighting equipment. Such equipment (portable fire extinguishers, fixed installations, etc.) will be dealt with in future International Standards.

2 References

ISO 1393, *Liquid halogenated hydrocarbons for industrial use — Determination of acidity — Titrimetric method.*

ISO 2210, *Liquid halogenated hydrocarbons for industrial use — Determination of residue on evaporation.*

ISO 3427, *Gaseous halogenated hydrocarbons (liquified gases) — Taking of a sample.*

3 Definition

For the purpose of this International Standard, the following definition applies.

halon : A halogenated hydrocarbon used as a fire extinguishing medium.

NOTE — The following numbering system is used to identify halons. The word "halon" is followed by a number, usually of four digits, giving, in turn, the number of carbon, fluorine, chlorine and bromine atoms. Terminal zeros are omitted. Thus halon 1211 is bromochlorodifluoromethane (CF_2ClBr) and halon 1301 is bromotrifluoromethane (CF_3Br).

4 Requirements

Halons 1211 and 1301 shall comply with the requirements of table 1, when tested by the appropriate method of test specified in clause 6.

Table 1 — Requirements

Property	Requirement	
	Halon 1211	Halon 1301
Purity, % (mol/mol) min.	99,0	99,6
Acidity, ppm by mass, max.	3,0	3,0
Water content, ppm by mass, max.	20	10
High boiling impurities, % (*m*/*m*) max.	0,01	0,01
Halogen ion	Passes test	Passes test
Inert gases in vapour phase, % (mol/mol) max.	Not applicable	1,5
Suspended matter or sediment	None visible	None visible

5 Sampling

Samples of halons shall be taken from the manufacturer's shipping container. When halons are in the liquid phase (see clause 6), the samples shall be taken adopting the method specified in ISO 3427.[1)]

1) The sampling bottle should be capable of safely resisting the vapour pressure of the sample at the highest temperature that could be encountered.

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