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**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB 35373-2017

HFC fire extinguishing agents

氢氟烃类灭火剂

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Quarantine;
Standardization Administration of the PRC**

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Foreword

Chapter 4 of this standard, Chapter 6 and

7.3 are mandatory, others are recommended. This standard was drafted in accordance with the rules given in GB/T 1.1-2009. This standard is proposed and managed by the Ministry of Public Security of the People's Republic of China. This standard is drafted by the Ministry of Public Security Tianjin Institute of Fire. Participated in the drafting of this standard.

Zhejiang Chemical Industry Research Institute Co., Ltd., Sichuan Qisheng Fire Equipment Manufacturing Co., Ltd.. The main drafters of this standard. Li Shu, Ma Jianming, Zhuang Shuang, Liu Yuheng, Liu Huimin, Bao Zhiming, Zhang Bin, Wang Shuai, Chen Peiyao, Shiwan Jun, Zhang Yi. Hydrofluorocarbon extinguishing agent

1 Scope

China's mandatory standard for hydrofluorocarbon fire extinguishing agents - the clean agents that replaced halon in the applications where water cannot be used: computer rooms and data centres, control rooms, switchrooms, archives, museums and aircraft. It specifies the terms and definitions, the abbreviations, the general requirements, the test methods, the inspection rules, and the packaging, marking, filling, transport and storage of HFC extinguishing agents, and it applies to the hydrofluorocarbon fire extinguishing agents. What a clean agent has to be is defined by what it replaces and by where it is discharged. Unlike water or foam it leaves no residue, which is why it is used over equipment that the extinguishing itself must not destroy. Unlike halon it does not deplete the ozone layer, which is why it exists at all. And unlike carbon dioxide it is discharged at a concentration intended to be survivable, because these systems protect rooms that people work in - so the purity of the agent is not a quality matter but a safety one: the impurities and the decomposition products, above all the acidity and the hydrogen fluoride that a fluorinated agent produces when it passes through a flame, are what would harm the occupants and corrode the equipment the system was installed to save. The requirements accordingly cover the purity and the assay of each agent, the water content, the acidity, the non-volatile residue, the suspended matter and the limits on the specific impurities, with the test methods to match.

The packaging and filling clause is part of the safety case rather than logistics: these agents are stored liquefied under pressure, and the filling density and the container requirements decide what happens in a fire in the cylinder room. Issued on 29 December 2017 and in force since 1 July 2018.

This standard specifies the terms and definitions of hydrofluorocarbons, abbreviations, general requirements, test methods, inspection rules, packaging, marking, Filling, transportation and storage. This standard applies to hydrofluorocarbons fire extinguishing agent.

2 Normative references

The following documents for the application of this document is essential. For dated references, only the dated version applies to this article Pieces. For undated references, the latest edition (including all amendments) applies to this document.

GB/T 191-2008 Packaging - Pictorial signs

GB/T 601 chemical reagent standard titration solution preparation

GB/T 603 chemical reagent test methods used in the preparation of preparations and products

GB/T 3864 industrial nitrogen

GB 5749 drinking water health standards

GB/T 5907.1 Firefighting vocabulary - Part 1. General terms Laboratory use specifications and test methods for analysis

GB/T 6682-2008 Determination of trace moisture in industrial fluoroalkanes

GB/T 9722-2006 General rules for chemical reagent gas chromatography

GB 14193 liquefied gas cylinder filling provisions

GB 14922.1 Experimental animal parasitology levels and monitoring

GB 14922.2 Laboratory animal microbiology grade and monitoring Quality control of laboratory animals, mammals, laboratory animals

GB 14924.3 experimental animal feed nutrition composition

GB 14925 laboratory animal environment and facilities

3.1 Terms and definitions

GB/T 5907.1 defined and the following terms and definitions apply to this document.

3.1.1 HFC hydrofluorocarbon fire extinguishing agent HFCfireextinguishingagent

Hydrocarbon extinguishing agents containing only hydrogen and fluorine atoms. HFCxyz or HFCxyzfa or HFCxyzea said.

Note. HFC represents a hydrofluorocarbon; x represents the number of carbon atoms minus 1; y represents the number of hydrogen atoms plus 1; z represents the number of fluorine atoms; and f represents the substitution of an intermediate carbon atom

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