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

GB 45944-2025

Perfluorohexanone extinguishing agent

全氟己酮灭火剂

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Foreword

This document is in accordance with the provisions of GB/T 1.1-2020 "Guidelines for standardization work Part

1. Structure and drafting rules for standardization documents" Drafting. Please note that some of the contents of this document may involve patents. The issuing organization of this document does not assume the responsibility for identifying patents. This document is proposed and coordinated by the National Fire and Rescue Administration.

Perfluorohexanone fire extinguishing agent

1 Scope

GB 45944-2025 is the Chinese national standard on perfluorohexanone extinguishing agent, in the field of environment and health protection, safety. It carries no /T suffix, which in the Chinese system means compliance is mandatory: a product or a practice within its scope has to meet it to be lawfully made, sold or carried out in China. It was issued on 1 August 2025 by the State Administration for Market Regulation; Standardization Administration of China, and has been in force since 1 August 2026. Classification: ICS 13.220.10, CCS C84. This page is published from the official record of the standard held by the Chinese standards administration: the identification, the dates, the classification and the issuing body are taken from there. The clause text, the tables and the numeric limits are in the document itself, which is delivered complete in English translation.

This document specifies the technical requirements, inspection rules, marking, filling, packaging, transportation and storage of perfluorohexanone fire extinguishing agent, and describes Corresponding test methods. This document applies to the research and development, production, filling and inspection of perfluorohexanone fire extinguishing

agent.

2 Normative references

The contents of the following documents constitute the essential clauses of this document through normative references in this document. For referenced documents without a date, only the version corresponding to that date applies to this document; for referenced documents without a date, the latest version (including all amendments) applies to This document.

GB/T 6680 General Rules for Sampling of Liquid Chemical Products

GB/T 6682 Specifications and test methods for water used in analytical laboratories

GB/T 7376-2008 Determination of trace water in industrial fluoroalkanes

GB/T 9722 General rules for gas chromatography of chemical reagents

GB/T 13004 Periodic inspection and assessment of seamless steel gas cylinders

GB/T 13075 Periodic inspection and assessment of welded steel gas cylinders

GB 16670 Cabinet type gas fire extinguishing device

GB/T 20702 Test method for fire extinguishing performance of gaseous fire extinguishing agents

GB 25972 Gas fire extinguishing systems and components

GB/T 27550 Safety technical requirements for gas cylinder filling stations XF1203 Gas Fire Extinguishing System Fire Extinguishing Agent Filling Regulations TSG

23 Gas Cylinder Safety Technical Regulations

3 Terms and Definitions

The following terms and definitions apply to this document.

3.1 perfluorohexanone Dodecafluoro-2-methyl-3-pentanone.

Note. Molecular formula. $\text{CF}_3\text{CF}_2\text{C}(\text{O})\text{CF}(\text{CF}_3)_2$; CAS registration number. 756-13-8.

3.2 Perfluorohexanone for fire extinguishing.

3.3 HFadductofperfluoro-2-methyl-2-pentene A substance produced by the addition reaction of perfluoro-2-methyl-2-pentene and HF (hydrogen fluoride).

Note. Mainly 1,1,1,2,2,3,3,5,5,5-decafluoro-4-trifluoromethyl-pentane, CAS registration number. 30320-28-6.