

ICS 13.220.10
CCS C 84

GA

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

GA 499.1-2010

Replacing GA 499.1-2004; GA 500-2004

**Aerosol fire extinguishing system - Part 1: Condensed aerosol
fire extinguishing device**

气溶胶灭火系统 第1部分：热气溶胶灭火装置

(English Translation)

Issued on: October 26, 2010

Implemented on: November 1, 2010

Issued by: Ministry of Public Security

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Foreword

This part of Chapter 5, Chapter 6 (except 6.14), chapter 8 and 10.1.1 are mandatory, the rest are recommended.

GA 499 "aerosol fire extinguishing system" is divided into the following sections.

- Part 1. hot aerosol fire extinguishing apparatus;
- Part 2. Cold aerosol fire extinguishing apparatus;
- Part 3. Tank with smoke fire extinguishing devices;

This is Part 1 GA 499 is.

This section drafted in accordance with GB/T 1.1-2009 given rules.

This Part replaces GA 499.1-2004 "aerosol fire extinguishing systems - Part 1. hot aerosol fire extinguishing device" and GA 500-2004 "Aerosol fire extinguishing agent." This part GA 499.1-2004 based, integrated content GA 500-2004 of, and GA 499.1-2004 in addition to editorial changes as compared to the outer main technical changes are as follows.

- Increasing the Introduction (see introduction);

- Modify the contents of the file a normative reference chapter (see Chapter 2, 2004 edition of Chapter 2);
- Modify the terms and definitions a chapter (see Chapter 3, Section 3 of the 2004 edition);
- Modify the content classification chapter (see Chapter 4, 2004 edition, Chapter 4);
- Modify the model designation system (see Chapter 5, Chapter 5 of the 2004 edition);
- Modify the requirements for a chapter (see Chapter 6, 2004 edition Chapter 6);
- Modify a chapter test methods (see Chapter 7, Chapter 7, 2004 edition);
- Modify the inspection rules one chapter (see Chapter 8, Chapter 8, 2004 edition);
- Will require GA 500-2004, test methods Added a chapter after modifications incorporated in this section (see Chapter 6, Chapter 7, GA 500 2004 edition Chapter 4, Chapter 5).

Please note that some content of this document may involve patents, the issuing authority of this document does not assume responsibility for the identification of these patents.

This part is proposed by the Ministry of Public Security Fire Department.

This part of the National Standardization Technical Committee fixed fire extinguishing system Technical Committee (SAC/TC113/SC2) centralized.

This section is responsible for drafting unit. Ministry of Public Security in Tianjin Fire Research Institute.

Participated in the drafting of this section. Shaanxi Provincial Fire Brigade, Fire Brigade in Jiangxi Province.

Introduction

Since the promulgation GA 500-2004 GA 499.1-2004 and promote the technological development of aerosol fire extinguishing system, also contributed to the relative Off the technical specifications such as GB 50370-2006 "gas fire extinguishing system design specifications" and GB 50263-2007 "gas fire extinguishing system installation and inspection Income standard "revision. In recent years, the product from the technical level, application areas, product type, product performance and other aspects have great hair Exhibition, change and improve. International International Organization for Standardization (ISO), National Fire Protection Association (NFPA), such as Underwriters Laboratories (UL) Etc. have been published in recent years or are developing standards for this product. GA 499.1-2004 and GA 500-2004 two standard focal point National Standardization Technical Committee fixed fire extinguishing systems and fire extinguishing agents Technical Committee Technical Committee based on the characteristics of the product, in

After extensive consultation with the manufacturer, design units, the use of units, management advice, consultation will integrate the two criteria, after the integration of content standards Unified into Part 1 GA 499 standard, and part of the status quo and change the foreign standard products to conduct a comprehensive Amendments.

In order to meet technological development thermal aerosol fire extinguishing devices, ensure the safety of its use, the technical content of the standard made the following changes.

- 1) for S and K-type aerosol fire extinguishing agent has been re-defined. This revision changes the GA 499.1-2004 press aerosols Extinguishing agent generator chemical components were divided in principle, but the performance of aerosol fire extinguishing agent as a division of S-type gas Sol extinguishing agent, K-type aerosol fire extinguishing agent basis. Because overcome by the chemical composition of division brings a wide variety of applications Marketing costs and the use of excessive administrative inconvenience.
- 2) Categories of non-limiting temperature increase fire suppression devices. Depending on the needs of place, this type of fire extinguishing system can reduce the coolant it uses, reducing the quality of the device itself, extinguishing effect some improvement.
- 3) aerosol fire extinguishing agent generating agent maximum filling quality limits. In recent years, through the thermal aerosol fire extinguishing apparatus for detecting data and analysis of the state of the discharge from the safety and aerosol fire extinguishing agent occurs extinguishing apparatus for use in fire fighting can be fully Combustion reaction and many other considerations, to determine the aerosol fire extinguishing agent generating agent maximum filling quality.
- 4) technical requirements for aerosol fire extinguishing agent and heat generating agent aerosol fire extinguishing agent can be adjusted. From a storage product performance, safety Aspects of energy, corrosion, etc. on the 2004 version of the standard was revised and supplemented.
- 5) from the environmental requirements of the material and coolant cooling device is proposed in line with national environmental requirements of the regulations.

Aerosol fire extinguishing system Part 1. Thermal aerosol fire extinguishing devices

1 Scope

GA 499 in this section specifies the terms and definitions thermal aerosol fire extinguishing apparatus, classification, model designation, requirements, test methods, inspection Rules, manuals - requirements and signs, packaging, transportation and storage.

This section applies to non-pipe network heat aerosol fire extinguishing devices.

This section does not apply to the aerosol mesh tube heat aerosol fire extinguishing systems, cold aerosol fire extinguishing equipment used in explosive and hazardous locations Plastic fire-fighting equipment.

2 Normative references

The following documents for the application of this document is essential. For dated references, only the dated version suitable for use herein Member. For undated references, the latest edition (including any amendments) applies to this document.

GB 190 packaging and marking of dangerous goods GB/T 191 Packaging - Pictorial signs
GB 4066.1-2004 powder extinguishing agent Part 1. BC powder extinguishing agent GB
5749 drinking water health standards GB 9108 Industrial fuse GB/T 9969 General
Instructions industrial products GB 12463 transport of dangerous goods packaging
technology GB 14922.1 Laboratory Animal parasitology rating and monitoring GB 14922.2
Microbiology Laboratory Animal rating and monitoring Genetic quality of GB 14923 animals
mammals animal control GB 14924.3 mice rat animal feed GB 14925 Laboratory Animal
Facilities and Environment GB 19880 manual fire alarm button GA 61 fixed fire
extinguishing system drive, control devices General

3 Terms and Definitions

The following terms and definitions apply to this document.

Aerosol extinguishing agent generating agent (hereinafter referred to as aerosol-generating agent) condensed aerosol extinguishing agent forming compound
(abbreviated aerosol forming compound) Aerosol fire extinguishing agent can produce heat by burning solid chemical reaction confection, generally by oxidants, reducing agents and additives.

Aerosol extinguishing agent condensed aerosol extinguishing agent Extinguishing agent through the aerosol-generating substance produced by the combustion reaction.