ICS 13.220.20
CCS 83

NATIONAL STANDARD OF THE PEOPLE'S REPUBLIC OF CHINA

GB 4066-2017

Replacing GB 4066.1-2004

Powder extinguishing agent

干粉灭火剂

Issued on: December 29, 2017 **Implemented on: July 1, 2018**

Issued by: General Administration of Quality Supervision, Inspection and Quarantine of the People's Republic of China;
Standardization Administration of China

Table of Contents

1 Scope

GB 4066-2017 is the Chinese national standard on powder 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 29 December 2017 by the General Administration of Quality Supervision, Inspection and Quarantine of the People's Republic of China; Standardization Administration of China, and has been in force since 1 July 2018. Classification: ICS 13.220.20, CCS 83. 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 Standard specifies the terms and definitions, models, technical requirements, test methods, inspection rules, marks, packaging, transportation and storage for powder extinguishing agent. This Standard applies to powder extinguishing agent whose major chemical content is not less than 75%. It is not suitable for ultra-fine powder extinguishing agent specified in GA 578 and Class D powder extinguishing agent specified in GA 979.

2 Normative references

The following referenced documents are indispensable for the application 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.

GB/T 535, Fertilizer grade ammonium sulphate

GB/T 622, Chemical reagent - Hydrochloric acid

GB 4351.1, Portable fire extinguishers - Part

3 Terms and definitions

For the purposes of this document, the terms and definitions defined in GB/T 5907 and GB/T 4968 as well as the followings apply.

3.1 characterization statement The data and information on the physical or chemical properties of powder extinguishing agent provided by the manufacturer or the inspection entrusting party. It includes the content of chemical content, bulk density, particle size distribution, fire extinguishing performance, etc.

3.4 batch Uniformed products that are produced according to the same formula and the same process, one-time feeding and production.

3.5 lot Multiple batches of products under the same formula, process, and raw materials. The total amount shall not exceed 25 t.

4 Models

The model of powder extinguishing agent is represented by a combination of fire type codes applicable to firefighting, chemical content and amount, and enterprise-defined information. The total content of chemical contents shall not be less than 90%.

5.1 General requirements

5.1.1 The raw materials and production process of powder extinguishing agent shall meet

the requirements of laws, regulations and mandatory national standards for personal health, safety and environmental protection.

5.1.2 The following performance parameters of powder extinguishing agent shall at least be indicated on the product packaging or instructions.

5.1.3 Powder extinguishing agents of different models or different production processes are strictly prohibited to be mixed in filling fire extinguishers, fire trucks, fire extinguishing systems and fire extinguishing equipment maintenance and other occasions.

5.2 Requirements for properties The main properties of powder extinguishing agent shall meet the requirements in Table 1.

6 Test methods

6.1 Contents of chemical contents See Annex A for the inspection method of sodium bicarbonate content. Self-defined by the enterprise

6.2 Bulk density

6.2.1 Instruments The instrument requirements for bulk density testing are as follows:

6.2.2.1 Weigh 100 g of powder extinguishing agent specimen, accurate to

0.2 g. Place in a stoppered measuring cylinder.

6.2.3 Results The bulk density Db is calculated according to formula (1).

6.3 Moisture content

6.3.1 Reagents and instruments Reagent and instrument requirements for water content test are as follows:

6.3.2.1 In the weighing bottle with constant weight, weigh 5 g of powder extinguishing agent specimen, accurate to

0.2 mg.

6.3.3 Results Moisture content x1 is calculated according to formula (2).

6.4 Moisture absorption rate

6.4.1 Reagents, instruments and equipment The requirements for reagents, instruments, and equipment for the moisture absorption rate test are as follows:

6.5 Liquidity

6.5.1 Instruments The instrument requirements for fluidity testing are as follows:

6.5.2 Test steps

6.5.3 Results Take the arithmetic mean value of 20 test times as the measurement result.

6.9 Low temperature resistance

6.9.1 Instruments and equipment The requirements for the instruments and equipment for the low temperature resistance test are as follows:

6.9.2.1 Weigh 20 g of powder extinguishing agent specimen, accurate to

0.2 g. Place in a dry, clean test tube.

7.1 Inspection categories and items

7.1.1 Routine inspection In normal production, each batch of products shall be routinely inspected. Bulk density, fluidity, water repellency, particle size distribution, low temperature resistance, and color are routine inspection items.

7.2 Sampling method

7.2.1 Samples for type inspection and confirmation inspection shall be taken from products that pass routine inspection. The sampling method shall ensure that the sampling is representative. The samples shall be thoroughly mixed before testing.

7.3 Judgment of inspection results The results of routine inspection, confirmation inspection and type inspection shall meet the technical requirements stipulated in Chapter

5.If one of the requirements is not met, the product will be judged as unqualified.

8 Marks, packaging, instruction manual, transportation and storage

8.1 Marks Each package shall be clearly and firmly marked with the manufacturer's name, address, product name, model, trademark, applicable standards, production date, production batch number, conformity mark, storage requirements, etc.

8.2 Packaging The powder extinguishing agent shall be sealed in a plastic bag. Protective packaging shall be added outside the plastic bag.