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

GA/T 536.4-2005

**Grading and test method on fire hazard for flammable and
explosive hazmats -- Part 4: Test method of grading for
substances which in contact with water emit flammable gases**

易燃易爆危险品 火灾危险性分级及试验方法 第4部分：遇水放出易燃气体物质分
级试验

(English Translation)

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Foreword

GA/T 536 "Classification and Test Methods for Fire Hazard of Flammable and Explosive Dangerous Goods" is divided into 6 parts.

--- Part 1. Classification of fire hazards for inflammable and explosive dangerous goods;

---Part 2. Test method for flammable solids classification;

---Part 3. Test methods for the classification of substances that are susceptible to spontaneous combustion;

---Part 4. Test method for grading of flammable substances in contact with water;

---Part 5. Method for the classification of solid oxidizing substances;

--- Part 6. Method for the classification of liquid oxidizing substances.

This part is the fourth part of GA/T 536.

This section mainly refers to the United Nations Committee of Experts on the Transport of Dangerous Goods, Recommendations on the Transport of Dangerous Goods - Manual of Tests and Criteria.

(Revision 3) The technical content of Part III.33.4.1 is formulated, and its structure and writing rules are in accordance with GB/T 1.1-2000.

Provisions.

This part was proposed by the Fire Department of the Ministry of Public Security of the People's Republic this part is under the jurisdiction of the First Technical Committee of the National Fire Protection Standardization Technical Committee (SAC/TC113/SC1).

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

Participated in the drafting of this section. Hebei Provincial Public Security Department Fire Bureau.

1 Scope

This part of GA/T 536 specifies the method for the classification of flammable gases in water.

This section applies to water that emits flammable gases that require a fire hazard classification.

2 Laboratory equipment

- a) Quantitative analysis of filter paper, diameter 90mm;
- b) the sink;
- c) evaporating dish, diameter 100mm;
- d) Conical grinding flask, volume. 100mL;
- e) dropping funnel, volume. 100mL;
- f) balance, the minimum sensitivity is not more than 0.1g;
- g) standard mesh screen with a mesh diameter of 500 μm ;
- h) burette;
- i) stainless steel medicine spoon;
- j) Stopwatch (minimum division is not more than 0.1s).

3 Pretreatment of test samples

- a) The test sample stored in the container shall be used for testing immediately after the container is opened;
- b) The test sample stored in the protective liquid is used for testing immediately after removing the protective liquid by using filter paper;
- c) The particle diameter of the solid test sample should be less than 500 μm .

4 Test conditions

The temperature is $(20 \pm 5)^\circ\text{C}$; the humidity is $(50 \pm 10)\%$ RH.

5 Test methods

The test samples were tested according to the following procedure. If the released gas spontaneously ignites at any stage of the test, the test is over. Such as If the test sample does not react violently with water, proceed directly to step 5.4.

5.1

Place the test sample with a diameter of about 2 mm in a water tank filled with distilled water at 20 ° C; the amount of liquid test sample is 0.005mL, observed.

- a) whether gas is released;
- b) Whether the gas is spontaneously ignited.

5.2

Place the test sample with a diameter of about 2 mm on the filter paper, and put the filter paper into the evaporating dish containing 20 ° C distilled water;

The sample is liquid, and the filter paper is replaced by an evaporating dish. The dosage is 0.005 mL. Observe.

- a) whether gas is released;
- b) Whether the gas is spontaneously ignited.