

ICS 13.300
CCS A 80



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

GB/T 21618-2008

**Dangerous goods -- Test method for burning rate of flammable
solids**

危险品 易燃固体燃烧速率试验方法

(English Translation)

Issued on: April 1, 2008

Implemented on: September 1, 2008

Issued by: Standardization Administration of China

Table of Contents

- Foreword
- 1 Scope
- 2 Normative references
- 3 PRINCIPLE OF THE METHOD
- 4 Instruments and equipment
- 5 Steps
 - 5.1 Sample Preparation
 - 5.2 Testing

Foreword

This corresponds to the standard of the United Nations "on the Recommendations on the Transport of Dangerous Goods. Manual of Tests and Criteria" (fourth revised edition), its consistency Cheng Degree is not equivalent. The standards for the technical content of the above-mentioned full agreement on a standard text format according to GB/T 1.1-2000 do Editorial changes.

This standard is managed by the National Standardization Technical Committee chemicals dangerous (SAC/TC251) and focal points.

1 Scope

This standard specifies the burn rate dangerous flammable solids test instruments and equipment, showing the steps and results.

This standard applies to the determination of the rate of combustion of dangerous goods granular, paste or powdered substance in.

2 Normative references

The following documents contain provisions which, through reference in this standard and become the standard terms. For dated references, subsequent Amendments (not including errata content) or revisions do not apply to this standard, however, encourage the parties to the agreement are based on research Whether the latest versions of these documents. For undated reference documents, the latest versions apply to this standard.

GB 6944-2005 Classification and code of dangerous goods GB/T 15098 transport of dangerous goods packaging principle category

3 PRINCIPLE OF THE METHOD

The solid material is determined after ignition combustion time.

4 Instruments and equipment

4.1

special mold, long 250mm, cross section inner height 10mm, width 20mm triangles.

4.2

gas burner, the flame temperature is low 1000 °C.

4.3

scale, the minimum scale of 1mm.

4.4

Stopwatch accuracy 0.5s.

4.5

test plate, impervious, non-burning, low thermal conductivity.

5.1 Sample Preparation

5.1.1

The commercial form of powdery or granular substances are loosely into a mold. Then let die from 20mm be dropped on a hard surface three times. Then the boundary side panels removed, placed on top of the mold test plate, the device upside down, remove the mold.

5.1.2

the paste does not burn the material is laid on the surface, do the rope-like growth 250mm, cross section of about 100mm². The case of damp-sensitive A sense of substance, the substance should be done as soon as possible after the container is removed from its experiment.

5.1.3

The stacking material on the ventilation of the fume hood. Winds should be sufficient to prevent fumes escaping into the laboratory and maintained during the test.

Equipment can be erected around the windshield.

5.1.4

For substances other than metal powders should be at a distance of 100mm long period of time measured count on 40mm 30mm at the stack to add 1mL Wetting solution to the wetting solution drop by drop at stacking ridge make sure all the material cross-section

stacking moist, liquid is not lost from the sides.

5.1.5

liquid dripping on the stacking area to be as small as possible in order to avoid the loss from both sides. There are a lot of substance, the water will roll down from both sides of the stack, the Need to add a wetting agent. Wetting agent used should be free from flammable solvent. The total amount of active substance in the wetting solution should not exceed 1%, this liquid can be added on top of the stack depth 3mm, 5mm in diameter in the hole.

5.2 Testing

5.2.1

with a gas nozzle (minimum flame temperature 1000 °C) ignited at one end of the stack. When stacking the combustion 80mm distance, measured in After 100mm burning rate. Of material other than metal powders, note whether the wetted zone stop propagation of the flame at least 4min.

5.2.2

The test shall be performed six times, each time using a clean cool plate, unless a positive result is observed earlier time.