

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

SN/T 1828.16-2019

Replacing SN/T 1828.16-2013

**Test method of classification for import and export dangerous
goods - Part 16: Nitrate substance
(English Translation)**

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Foreword

SN/T 1828 "Classification Test Method for Import and Export Dangerous Goods" is divided into 17 parts.

- Part 1. General rules;
- Part 2. Civil explosives;
- Part 3. Oxides;
- Part 4. Corrosive substances;
- Part 5. gas mixture;
- Part 6. Emission of flammable substances in contact with water;
- Part 7. Compressed gas;
- Part 8. Organic peroxides;
- Part 9. Toxic substances;
- Part 10. Toxic gases;
- Part 11. Flammable solids;

- Part 12. Flammable gas;
- Part 13. Flammable liquids;
- Part 14. Lithium battery pack;
- Part 15. Self-heating solids;
- Part 16. Nitrate substances;
- Part 17. Marine pollutants.

This part is the 16th part of Sn/T 1828.

This section is drafted in accordance with the requirements of GB/T 1.1-2009.

This section is a revision of the Sn/T 182.8.16-2013 "Classification Test Method for Import and Export Dangerous Goods Part 16 Nitrate Substances" the main differences between this section and Sn/T 182.8.16-2013 are as follows.

- The text format of this section is prepared in accordance with GB/T 1.1-2009;
- Increase 5.4.3 chapter.

This section is proposed and managed by the General Administration of Customs of the People's Republic of China.

This section was drafted. Tianjin Customs, People's Republic of China.

1 Scope

This part of SN/T 2818 specifies the test requirements, tests and category determinations for import and export of solid inorganic nitrate dangerous goods.

This section applies to the test of import and export of solid inorganic nitrate (except ammonium nitrate) dangerous goods.

2 Normative references

The following documents are essential for the application of this document. For dated references, only the dated version applies to this document.

file. For undated references, the latest version (including all amendments) applies to this document.

United Nations Recommendations, Tests and Standards Manual on the Transport of Dangerous Goods (Revision 6)

3 Terms and definitions

The following terms and definitions established in the United Nations Manual of Recommendations, Tests and Standards on the Transport of Dangerous Goods (Revision 6) apply.

Used in this document.

4 Test requirements

4.1

It shall be checked whether the substance to be used in the form of transport contains particles smaller than 500 µm in diameter. If the powder with a diameter of less than 500 µm accounts for more than 10% of the total mass, or the substance is fragile, all test samples should be ground into powder before testing, so as to take care Reduced cargo size during loading and unloading and transportation.

4.2

The experiment requires a certain degree of ventilation, but the fume hood or other ventilation area with an air velocity of not more than 0.5m/s is used to exhaust the smoke.

The system should be suitable for absorbing toxic fumes.

4.3

The solid oxidation test is carried out at normal pressure and ambient temperature $20\text{ }^{\circ}\text{C} \pm 5\text{ }^{\circ}\text{C}$.

5.1 Test items

Oxidative solids test.

5.2 Number of samples

500g of representative substance was randomly selected from the goods to be inspected for the test of hazardous characteristics.

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5.3.1 Potassium bromate reference substance

It is sieved but should not be ground. The particle size is from 0.15mm to 0.30mm. It is industrially pure. Dry to constant weight (at least 12h) at $65\text{ }^{\circ}\text{C}$, and then place Return to the desiccator (with desiccant), cool and set aside.

5.3.2 Fiber

Cellulose filaments, with a length of 50 μm to 250 μm and an average diameter of 25 μm . The dried cellulose filament is made into a thin layer with a thickness of not more than 25 mm, dried to a constant weight (at least 4 h) at 105 ° C, and then placed in a desiccator (with a desiccant), and cooled for later use. Moisture content (based on dry weight) should be less than 0.5%, if necessary, can extend the drying time.

5.3.3 Ignition source

That is, an inert metal wire (such as nickel/chromium) connected to the power supply should meet the following characteristics.

- a) Length. 30cm $\pm$ 1cm;
- b) Diameter. 0.60mm $\pm$ 0.05mm;
- c) Resistance. 6.0ohm/m $\pm$ 0.5ohm/m;
- d) Power consumption of metal wire. 150W $\pm$ 7W;
- e) See Figure A in Appendix A for metal wires. The shape shown in Figure 1.

5.4.1 Glass funnel

A 60 ° glass funnel with a closed end and an inner diameter of 70 mm.

5.4.2 Test plate

The test slab should be impervious and meet the following requirements.

- a) Length. 150mm;
- b) width. 150mm;
- c) thickness. 6mm;
- d) Thermal conductivity (at 0 ° C). 0.23W (m $\cdot$ K).

5.4.3 Balance

Can be accurate to 0.01g.

5.5 Test procedure

5.5.1 30.0g $\pm$ 0.1g of the reference material and fiber mixture are arranged according to the mass ratio of potassium bromate to cellulose 3. 7, 2. 3 and 3. 2.

30.0g $\pm$ 0.1g of the substance to be tested (the particle size is the particle size to be used for transportation) and the cellulose mixture according to the mass ratio of the sample to