

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

SN/T 1828.5-2019

Replacing SN/T 1828.5-2013

**Test method of classification for import and export dangerous
goods - Part 5: Gas mixture
(English Translation)**

Issued on: October 25, 2019

Implemented on: May 1, 2020

Issued by: General Administration of Customs

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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 gas 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 fifth part of Sn/T 1828.

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

This section replaces SN/T 188.5-2013 "Classification test methods for dangerous goods for import and export-Part 5. Gas mixtures" Compared with Sn/T 188.5-2013, the main technical changes in this section are as follows.

--- Modify 6.1.1 "performed in 6.1 of Sn/T 182.8.12-2013" to " 6.1.1.1. If the gas mixture has not been burned, the gas is judged to be non-flammable.

6.1.1.2. Such as partial combustion, that is, the flame starts to burn around the spark plug, and then goes out. This phenomenon indicates that the test concentration is close to the flammable electrode.

Limit, repeat the test at least 5 times. If a flame rise occurs in the repeated test, the gas is determined to be flammable. As flames the tube rises slowly at a speed of 10m/s to 50m/s. When this phenomenon occurs, it can be considered that the flammability limit is found, that is, the gas is flammable.

6.1.1.3. The flame rises in the tube at a speed of more than 50 m/s. If the flame rises, it is determined that the gas is flammable. "

--- Modify the classification of 6.3 "not satisfying the conditions of flammable gas and toxic gas is 2.2 non-toxic non-flammable non-toxic gas, of which 2.3 Toxic gases take precedence over other items, and 2.1 flammable gases take precedence over 2.2 non-toxic non-flammable and non-toxic gases. "Is not satisfied the classification of flammable gas and toxic gas conditions is 2.2 non-flammable and non-toxic gases, of which 2.3 toxic gases take precedence over others in addition, 2.1 flammable gases are preferred over 2.2 non-flammable and non-toxic gases. " 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 1828 specifies the test requirements, tests, and category determinations for import and export gas mixtures.

This section applies to the test of dangerous characteristics of gas mixtures for import and export.

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.

SN/T 182.8.10 Test methods for classification of dangerous goods for import and export-Part 10; Toxic gases SN/T 182.8.12 Test methods for classification of dangerous goods for import and export-Part 12; Flammable gases

3 Terms and definitions

The following terms and definitions apply to this document.

A gas or gas mixture that can be ignited in air at 20 ° C under atmospheric pressure.

The lowest concentration of gas or gas mixture that can be ignited in air at 20 ° C under atmospheric pressure.

After continuous inhalation of gas for 24 hours (or less) in adult male and female rats, these experimental animals are most likely to cause death within 14 days.

Half the concentration of steam, smoke or dust.

4 Test requirements

4.1

In the gas flammability test, the concentration of flammable components in the mixed gas to be measured shall include the flammable components that may be encountered in the daily production process.

High concentration, and the moisture content should be less than 10mg/L.

4.2

In the gas flammability test, the compressed air used for the experiment should not contain water.

4.3

Before the experiment, the gas should be thoroughly mixed, and the composition of the mixed gas should be analyzed by chromatography or other suitable instruments.

4.4

In the gas flammability test, the reaction tube shall be composed of heat-resistant glass with a wall thickness of not less than 5 mm, an inner diameter of at least 50 mm, and a

length of at least 50 mm.

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5 times the inner diameter. The reaction tube should be kept clean during the test to avoid contamination by impurities, especially moisture.

4.5

In the test gas flammability test, the spark generator of the ignition system (15KV electrode voltage can be selected) should provide 10J per spark.

Energy (recommended electrode spacing is 5mm).

5.1.1 Flammability test

For the test method, please refer to the provisions of Sn/T 1828.12- xxxx.

5.1.2 Toxicity test

For the test method, please refer to the provisions of Sn/T 1828.10.

6.1.1 Test judgment

6.1.1.1

If the gas mixture has not been burned, the gas is judged to be non-flammable.

6.1.1.2

If it is partially burned, that is, the flame starts to burn around the spark plug and then goes out, this phenomenon indicates that the test concentration is close to the flammability limit Value, the test is repeated at least 5 times. If a flame rise occurs during the repeated test, the gas is judged to be flammable. As flame in the tube China slowly rises at a speed of 10m/s to 50m/s. When this phenomenon occurs, it can be considered that the flammability limit value is found, that is, the gas is flammable.

6.1.1.3

The flame rises in the tube at a speed of more than 50 m/s. If a flame rise occurs, it is determined that the gas is flammable.

6.1.2 Calculation and judgment

In accordance with the provisions of SN/T 182.8.12- xxxx 6.1.

6.2.1 Test judgment

According to the provisions of Sn/T 182.8.10, the toxicity of the gas mixture is determined based on the test results.