

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

SN/T 1732.20-2016

**Pyrotechnic composition used for fireworks and
firecracker--Part 20: Determination of strontium content--Flame
atomic absorption spectroscopy**

烟花爆竹用烟火药剂 第20部分：钡含量的测定 火焰原子吸收法

(English Translation)

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Foreword

SN/T 1732 "Fireworks for fireworks and firecrackers" is divided into 20 parts.

- Part 1. Determination of antimony content;
- Part 2. Determination of dichromate content;
- Part 3. Determination of zinc content;
- Part 4. Determination of copper content;
- Part 5. Determination of titanium content;
- Part 6. Determination of antimony content;
- Part 7. Determination of lead content;
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- Part 16. Determination of picric acid - High performance liquid chromatography;
- Part 17 . Determination of hexachlorobenzene by gas chromatography ;
- Part 18. Methods for the detection of chlorinated paraffins;
- Part 19 . Determination of gallic acid by high performance liquid chromatography ;

--- Part 20. Determination of antimony content - Flame atomic absorption method.

This section is Part 20 of SN/T 1732.

This section was drafted in accordance with the rules of GB/T 1.1-2009.

This part is proposed and managed by the National Certification and Accreditation Regulatory Commission.

1 Scope

This part of SN/T 1732 specifies flame atomic absorption spectrometry for the determination of antimony in pyrotechnic compositions for fireworks and firecrackers.

This section applies to flame atomic absorption spectrometry for the determination of pyrotechnic compositions of fireworks. Measurement range. yttrium content (with yttrium mass Score) is greater than 0.5%.

2 Normative references

The following documents are indispensable for the application of this document. For dated references, only dated versions apply to this article Pieces. For undated references, the latest version (including all amendments) applies to this document.

GB/T 6682 Analysis Laboratory Water Specifications and Test Methods GB/T 8170 Representation and Determination of Numerical Rounding Rules and Limit Values GB/T 15813-1995 Firecracker and Firecracker Forming Agent Sample Separation and Smashing

3 Principle

After appropriate pretreatment of the sample, it was filtered to constant volume. The sample solution is injected into the flammable air-acetylene flame to form a helium ground state in a high-temperature flame.

The 553.6nm characteristic line emitted by the sub-half hollow cathode lamp selectively absorbs, and its absorbance value is proportional to the mass concentration of helium.

4 Reagents

Unless otherwise stated, only analytically pure reagents and at least Grade 3 water specified in GB/T 6682 were used in the analysis.

4.1

Ethanol.

4.2

Acetone.

4.3

nitric acid, superior grade pure.

4.4

Nitric acid solution (15).

4.5

Nitric acid solution (1 99).

4.6

Acetic acid.

4.7

Barium nitrate, spectrally pure.