

ICS 71.100.30
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**INDUSTRY STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

SN/T 1732.7-2014

Replacing SN/T 1732.7-2006

**Pyrotechnic composition used for fireworks and firecracker.
Part 7: Determination of lead content**

烟花爆竹用烟火药剂 第7部分：铅含量的测定
(English Translation)

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Foreword

SN/T 1732 "with fireworks pyrotechnic" is divided into 13 parts.

- Part 1. Determination of barium content;
- Part 2. Determination of dichromate;
- Part 3. Determination of zinc content;
- Part 4. Determination of copper content;
- Part 5. Determination of titanium content;
- Part 6. Determination of strontium content;
- Part 7. Determination of lead content;
- Part 8. Determination of sodium content;
- Part 9. Determination of magnesium content;
- Part 10. Determination of sulfur content;
- Part 11. Determination of potassium content;
- Part 12. Determination of red phosphorus content;
- Part 13. Determination of boric acid content.

This section SN/T 1732 Part 7.

This section drafted in accordance with the rules of GB/T 1.1-2009 and GB/T 20001.4-2001 given.

The partial replacement of SN/T 1732.7-2006 "with fireworks Pyrotechnic Part 7. Determination of lead content", in addition to editorial modifications Outside the main technical changes are as follows.

--- In the foreword of the provisions, the increase in the standard preparation of the drafting of the rules are based;

- Modify the "Normative references" in the introductory phrase (see Chapter 2);
- Modify the scope of this section will be applicable from the scope "This section applies to fireworks with pyrotechnic lead content test Set "to" This section applies to pyrotechnic fireworks with lead content greater than 1% of the measured "(see Chapter 1);
- Modify the principle part of Chapter 3;
- Increased zinc chloride and EDTA reaction formula;
- Combined principle and reaction section;
- Original Chapter 5, delete the words "ammonia 5.3", 5.6 "hydrochloric acid" and "5.8 hexamethylenetetramine solution (20%)," revised hydroxide the concentration of nitric acid and sodium concentration, increasing the "sodium hydroxide solution [c (NaOH) = 0.1mol/L]", "phthalate Potassium - sodium hydroxide buffer solution (pH6.0) "and" zinc chloride standard titration solution [c (ZnCl₂) = 0.1mol/L] ";
- Amended Chapter 7 of the part;
- Modify the sample size, the "Weigh about 5g sample" to "Weigh about 2g ~ 5g sample" (see 7.1);
- Modify the formulas in Chapter 8;
- Modify the part in Chapter 8 of the formula symbol sense.

This part is proposed by the National Certification and Accreditation Administration.

The section under the jurisdiction of the State Certification and Accreditation Administration Committee.

This section is drafted. North Exit Inspection and Quarantine.

1 Scope

SN/T 1732 This section specifies the method for the determination of lead in pyrotechnic fireworks and firecrackers.

This section applies to pyrotechnic fireworks with lead content greater than 1% of the measurement.

2 Normative references

The following documents for the application of this document is essential. For dated references, only the dated version suitable for use herein Member. For undated references, the latest edition (including any amendments) applies to this document.

Preparation of GB/T 601 chemical reagent standard titration solution Laboratory use specifications and test methods GB/T 6682 Analysis GB/T 8170 repair value expressed

about the rules and limit values and judgment GB/T 15813-1995 Fireworks forming agent sample separation and crushing Principle 3 After the sample after appropriate pretreatment with nitric acid and hydrogen peroxide heated and dissolved were added potassium chromate, sodium hydroxide alone isolated lead ions, Under certain pH of xylene orange indicator solution, zinc chloride standard titration solution drop complex titration method for the determination of lead content in return.

$$\text{Pb}_3\text{O}_4 + \text{H}_2\text{O}_2 + 6\text{H}^+ = 3\text{Pb}^{2+} + 4\text{H}_2\text{O} + \text{O}_2 \text{ (up)}$$

$$\text{Pb}^{2+} + \text{CrO}_4^{2-} = \text{PbCrO}_4 \text{ (down)}$$

$$\text{PbCrO}_4 + 4\text{OH}^- = \text{PbO}_2 + \text{CrO}_4^{2-} + 2\text{H}_2\text{O}$$

$$\text{PbO}_2 + 4\text{H}^+ = \text{Pb}^{2+} + 2\text{H}_2\text{O}$$

$$\text{H}_2\text{Y}^{2-} + \text{Pb}^{2+} = \text{PbY}^{2-} + 2\text{H}^+$$

$$\text{Zn}^{2+} + \text{H}_2\text{Y}^{2-} = \text{ZnY}^{2-} + 2\text{H}^+$$

4 Reagents and materials

Unless otherwise indicated in the analysis using only confirm at least three water analytical grade reagents and GB/T 6682 stipulated.

4.1

ethanol.

4.2

acetone.