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

SN/T 1031.6-2012

Replacing SN/T 1031.6-2001

**Chemical analysis of crude antimony trioxide for export. Part 6:
Determination of lead and iron contents
(English Translation)**

Issued on: January 1, 1970

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Foreword

SN/T 1031 "chemical analysis of antimony oxide crude exports" is divided into seven parts.

- Part 1. Determination of mercury content;
- Part 2. Determination of total antimony content;
- Part 3. Determination of antimony content;
- Part 4. Determination of fluorine content;
- Part 5. Determination of selenium content;
- Part 6. Determination of lead and iron content;
- Part 7. Determination of arsenic content.

This section SN/T 1031 Part 6.

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

The partial replacement of SN/T 1031.6-2001 "Analysis of export crude antimony oxide chemical lead, Determination of iron content." this section compared with the SN/T 1031.6-2001, the main technical changes are as follows.

- Add a description of the preamble;
- Revised Chapter 2, "Normative references";
- Modify the atomic absorption spectrophotometer described in Chapter 5;
- Will be split into Chapter 6, "Chapter 6, sample preparation" and "Chapter 7 Analysis Procedure";
- Modify the content of "Chapter 7 Analysis Procedure". the unity of the sample weight, increase the dilution of the description of the operation and the sample solution description;
- Modify the formula to calculate the results.

This section proposed and managed by the National Certification and Accreditation Administration Committee.

1 Scope

This section SN/T 1231 specifies the flame atomic absorption spectrophotometry export crude antimony oxide of lead, iron content approach.

This section applies to the determination of export crude antimony oxide of lead, iron content. Measurement range. Pb. 0.005% to 1% (mass fraction), Iron. 0.002% to 0.5% (mass fraction).

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.

Laboratory use specifications and test methods GB/T 6682 Analysis GB/T 21187-2007 atomic absorption spectrophotometer

3 Method summary

Sample of hydrochloric acid and nitric acid is dissolved, evaporated, to remove most of the volatiles hydrobromide antimony in dilute hydrochloric acid medium, atomic absorption spectrophotometer Meter wavelength 283.3nm, 248.3nm at each measuring lead, iron absorbance obtained from the concentration and then calculate the appropriate operating curve its content. Crude antimony oxide in the other impurities not interfere with the determination.

4 Reagents

Unless otherwise indicated, used in the analysis confirmed that only analytical grade reagents, water GB/T 6682 provisions tertiary water.

4.1

Hydrochloride (rho. 1.19g/mL).

4.2

nitric acid (rho. 1.42g/mL).

4.3

hydrobromide (rho. 1.48g/mL).

4.4

hydrochloride (11).

4.5

nitric acid (11).

4.6

lead standard stock solution (1000 μ g/mL). Weigh 1.0000g pure lead, placed in 250mL beaker, add 20mL nitrate Acid (4.5), cover with a watch glass, heated and dissolved to clear, boiled to remove oxides of nitrogen and cooled. Moved into 1000mL volumetric flask, dilute with water Release to the mark.

4.7

lead standard solution (100 μ g/mL). Pipette 10.00mL lead standard stock solution (4.6) in 100mL flask, add 5mL salt Acid (4.4), diluted with water to the mark.

4.8

Standard Iron stock solution (1000 μ g/mL). Weigh 1.0000g iron, placed in 250mL beaker, add 20mL nitrate Acid (4.5), cover with a watch glass, heated and dissolved to clear, boiled to remove oxides of nitrogen and cooled. Moved into 1000mL volumetric flask, dilute with water