

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

SN/T 0837.1-2011

Replacing SN/T 0837.1-1999

**Method for chemical analysis of arsenic trioxide for import and
export. Part 1: Determination of arsenic trioxide content**

进出口三氧化二砷化学分析方法 第1部分：三氧化二砷含量的测定

(English Translation)

Issued on: February 25, 2011

Implemented on: July 1, 2011

Issued by: General Administration of Customs

Table of Contents

- Foreword
- 1 Scope
- 2 Normative references
- 3 PRINCIPLE OF THE METHOD
- 4 Reagents

Foreword

SN/T 0837 "Importers and chemical analysis of arsenic trioxide" series of standards is divided into four parts.

Determination of Arsenic trioxide content. --- Part 1

--- Part 2. Determination of moisture content

--- Part 3. Determination of iron content

--- Part 4. Determination of chlorine ion content this section SN/T Section 10837 of.

The partial replacement of SN/T 0837.1-1999 "Determination of arsenic trioxide outlet purity." this section compared with the SN/T 0837.1-1999, the main changes are as follows.

--- Determination of upper range is modified by 99.0% to 99.8%;

--- Increase in Chapter 2, "Normative references" and Chapter 5, "Instrument";

--- In Chapter 4, "agent", add "Arsenic trioxide (Reference Reagent)" section. On the "iodine standard solution" shall be added to the standard solution of iodine Determination of the content of arsenic trioxide titer;

--- In Chapter 6, "sample", the increased size of the requirements by deleting the contents of the sample with respect to the preparation of shelf life and retention samples. Will be attached

Note Warning After modifying the language in the first part of this;

--- In Chapter 7, "analysis step", the determination and the parallel increase in the blank test requirements. Note 1 to the original text on a black sink Precipitates affect the processing of the end portion of the judgment, the bugs, moved to this part of the body. And the results for the corresponding formula modify;

--- Will allow differential expression modified to express precision specification.

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

1 Scope

This section provides the determination of the import and export of arsenic trioxide arsenic trioxide content.

This section applies to the determination of arsenic trioxide arsenic trioxide and export content. Measurement range. from 97.0% to 99.8% (by 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.

GB/T 12805-1991 laboratory glassware Burettes GB/T 12806-1991 laboratory glassware single marking flask GB/T 12808-1991 laboratory glassware single marking pipette

3 PRINCIPLE OF THE METHOD

Sample was dissolved by sodium hydroxide solution, adding lead acetate to eliminate interference sulfur pH adjusted ~8, sodium bicarbonate as buffering agents, soluble starch Solution as an indicator, titration with iodine standard solution by arsenic trioxide (reference reagent) comparing the determination of the content of arsenic trioxide.

4 Reagents

Unless otherwise specified, use only analytical grade reagents and distilled or deionized water or equivalent purity.

4.1

sodium bicarbonate.

4.2

trioxide (reference reagents). Before using the samples were placed together drier than 16h.

4.3

sulfate (135). a volume of sulfuric acid ($\rho=1.84\text{g/mL}$) with 35 volumes of water and mix.

4.4

Sodium hydroxide solution (40g/L).

4.5

Lead acetate solution (lead about 1mg/mL). said to take the lead acetate $[\text{Pb}(\text{C}_2\text{H}_3\text{O}_2)_2 \cdot 3\text{H}_2\text{O}]$ 0.37g into a beaker of warm water Dissolved (if turbidity 1 drop to 2 drops of acetic acid), cooled, diluted to 200mL, shake.

4.6

iodine standard solution. Weigh 13g 40g iodine and potassium iodide, placed in a glass mortar, add a little water into a solution, cotton filtrate Diluted to 1000mL, stored in a brown bottle and shake.

Determination of iodine standard solution of arsenic trioxide titer of. simultaneously with the measurement sample, weighed trioxide (reference reagent) according to analysis step Step operation, according to equation (1) to calculate titer.

$$T = m_1 \times A (V_2 - V_0)$$