

ICS 73.080

CCS D51



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

GB/T 15927-2010

Replacing GB/T 15927-1995

**Method for chemical analysis of arsenic ores - Determination of
arsenic content**

砷矿石化学分析方法 砷量测定

Issued on: November 10, 2010

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Quarantine of the People's Republic of China;
Standardization Administration of China**

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Foreword

This standard replaces GB/T 15927-1995 "Methods for chemical analysis of arsenic ores - alkali fusion Separation - iodometry determination of arsenic content." This standard compared with GB/T 15927-1995, the main changes are as follows:

- Modify the standard English name;
- Increased alert, warning of the content;
- Increasing the purity of the reagents used and experimental water requirements;
- Increasing the particle size of the sample and drying requirements;
- Increased verification test content. The standard proposed by the People's Republic of China Ministry of Land Resources. This standard by the National Standardization Technical Committee of Land and Resources. This standard is drafted by: National Geological Experimental Test Center. This standard was drafted. Hubei Institute of Geology. The main drafters of this standard. Zhaoxian ball, Xiong Yuxiang, Tangxing Min. This standard replaces the standards previously issued as follows:
 - GB/T 15927-1995. Methods for chemical analysis of arsenic ores Determination of Arsenic Warning. Use of this standard shall have a person experiences regular laboratory work. This standard does not point out all possible security issues. Users have the responsibility to take appropriate safety and health practices and to ensure compliance with the conditions relevant national regulations.

1 Scope

GB/T 15927-2010 is the Chinese national standard on method for chemical analysis of arsenic ores - determination of arsenic content, in the field of mining and minerals. The /T suffix marks it as a recommended standard: it is not compulsory by itself, but it becomes binding as soon as a contract, a tender or a customer specification calls it up - which in practice is how most foreign buyers meet it. It was issued on 10 November 2010 by the General Administration of Quality Supervision, Inspection and Quarantine of the People's Republic of China; Standardization Administration of China, and has been in force since 1

February 2011. Classification: ICS 73.080, CCS D51. This page is published from the official record of the standard held by the Chinese standards administration: the identification, the dates, the classification and the issuing body are taken from there. The clause text, the tables and the numeric limits are in the document itself, which is delivered complete in English translation.

This standard specifies the method for determination of arsenic content of arsenic in the ore. This standard applies to the determination of arsenic content of arsenic in the ore. Measuring range. 0.5% or more of arsenic.

2 Normative references

The following documents contain provisions which, through reference in this standard and become the standard terms. For dated references, subsequent Amendments (not including errata content) or revisions do not apply to this standard, however, encourage the parties to the agreement are based on research Whether the latest versions of these documents. For undated reference documents, the latest versions apply to this standard. Laboratory use specifications and test methods

GB/T 6682 Analysis Principle

3 After the sample sodium peroxide and sodium carbonate melt, water extraction, and the solution was acidified with sulfuric acid, reduction with potassium iodide, sodium tartrate complex lead, Tin, zinc and other elements, then iodine arsenic standard solution titration, calculate the amount of arsenic.

4 Reagents

Unless otherwise indicated in the analysis are consistent with the use of analytical reagents and GB/T 6682 water analytical laboratory.

4.1 Sodium peroxide - sodium carbonate mixed solvent (21).

4.2 sodium bicarbonate.

4.3 Hydrogen peroxide.

4.4 sulfate (11). Warning. When diluted improper operation could easily cause burns

4.5 Aqueous ammonia (11).

4.6 Sodium hydroxide solution (200g/L).

4.7 potassium iodide solution (500g/L).

4.8 sodium tartrate solution (200g/L).

4.9 sodium thiosulfate standard solution [$c(\text{Na}_2\text{S}_2\text{O}_3 \cdot 5\text{H}_2\text{O}) = 0.01\text{mol/L}$].

4.10 saturated sodium bicarbonate solution (120g/L).

4.12 Arsenic standard solution. Weigh 1.3202g spectroscopically pure arsenic trioxide has been baked for 2h at 105 °C, placed in 150mL beaker, add 20mL sodium hydroxide solution (4.6) is dissolved, add 2 drops of phenolphthalein solution (4.15), with sulfuric acid (4.4) and to slightly acidic solution, cooled and transferred to 1000mL volumetric flask, dilute to the mark, shake. Arsenic concentration solution is 1.0mg/mL.

4.13 iodine standard solution [$c(1/2I_2) = 0.01\text{mol/L}$].

a) preparation. Weigh iodine (4.11) 1.27g, placed in advance plus a 40g potassium iodide and water 25mL stoppered Erlenmeyer flask, tightly after shaking. Scroll to the iodine is completely dissolved and transferred to 1000mL brown bottle, water volume to 1000mL, shake;