

ICS 71.040.30
CCS G 60



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

GB/T 9735-2008

Replacing GB/T 9735-1988

**Chemical reagent -- General method for the determination of
heavy metals**

化学试剂 重金属测定通用方法

(English Translation)

Issued on: May 15, 2008

Implemented on: November 1, 2008

Issued by: Standardization Administration of China

Table of Contents

Foreword
1 Scope
2 Normative references
3 PRINCIPLE OF THE METHOD
4 Reagents
5 Determination
5.1 Colorimetric hydrogen sulphide saturated aqueous
5.2 Sodium sulfide - Glycerin colorimetry

Foreword

This standard and ISO 6353-1. 1982 "Chemical analysis of reagent --- Part 1. General test method" non-equivalent.

This standard replaces GB/T 9735-1988 "General method for the determination of heavy metals in chemical reagents," compared with the GB/T 9735-1988 Main Changes are as follows.

--- Increased sodium sulfide - Determination of Heavy Metal glycerol method (Excerpts Chapter 1, Chapter 5).

The standard proposed by China Petroleum and Chemical Industry Association.

This standard by the National Standardization Technical Committee Chemistry Chemicals Branch (SAC/TC63/SC3) centralized.

This standard was drafted. Guangzhou Chemical Reagent Factory.

1 Scope

This standard specifies the acetic acid in the medium heavy metals into sulfides with the general method of visual colorimetric assay.

This standard applies to the determination of heavy metals in the lead in terms of the chemical reagent. Colorimetric detection range for hydrogen sulphide saturated aqueous 0.3 μ g/mL ~ 2 μ g/mL (as Pb); sodium sulfide - Glycerin colorimetric detection range of 0.4 μ g/mL ~ 3 μ g/mL (Pb).

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.

GB/T 602 Determination of impurities in chemical reagents prepared standard solution (GB/T 602-2002, ISO 6353-1. 1982, NEQ) with GB/T 603 chemical reagent test method Preparations of articles (GB/T 603-2002, ISO 6353-1 with. 1982, NEQ) GB/T 6682 analytical laboratory use specifications and test methods (GB/T 6682-2008, ISO 3696. 1987, MOD)

3 PRINCIPLE OF THE METHOD

Heavy metal ions and negative ions generated through a divalent sulfur sulfide precipitation in acid medium. Low content of heavy metal elements to form a stable Given dark suspensions, for visual colorimetric determination of heavy metals.

4 Reagents

Unless otherwise specified in this standard, the standard solution used in formulations and products, according to GB/T 602, the provisions of the preparation of GB/T 603, the experiment Water should be consistent with GB/T 6682 water in three specifications, are used in mass fraction in% of the solution.

5.1 Colorimetric hydrogen sulphide saturated aqueous

Sampling according to product standards and the preparation of test solution (pH value of the test solution was adjusted to 4 if necessary), acetic acid solution was added 0.2mL (30%), diluted to 25mL, 10mL of water was added a saturated hydrogen sulfide freshly prepared, shake, place 10min. The standard solution was dark and Comparison of colorimetric solution.

Preparation of the standard color solution containing a predetermined ratio of the amount taken is lead (Pb) and the amount of the standard solution of the substrate (if the sample solution containing no substrate or substrate no effect on the determination of the presence, it does not add), with the same volume of test solution at the same time the same treatment.

5.2.1 Sulfide - Preparation of glycerol solution

Weigh 5g mixture of sodium sulfide, dissolved in 10mL water and 30mL glycerol, protected from light seal, valid for one month.

5.2.2 Determination

Sampling according to product standards and the preparation of test solution (pH value of the test solution was adjusted to 4 if necessary), acetic acid solution was added 0.2mL (30%), diluted to 25mL, 0.1mL sodium sulfide was added - glycerol solution, shake, place 10min. Dark standard colorimetric solution was