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

GB/T 35595-2025

Replacing GB/T 35595-2017

**Glass containers - Testing methods for arsenic and antimony
release**

玻璃容器 砷、锑溶出量的测定方法

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Foreword

This document complies with the provisions of GB/T 1.1-2020 "Standardization Work Guidelines Part 1: Structure and Drafting Rules of Standardization Documents". Drafting.

This document supersedes GB/T 35595-2017 "Determination of Arsenic and Antimony Leaching from Glass Containers" and is consistent with GB/T 35595-2017.

Aside from structural adjustments and editorial changes, the main technical changes are as follows.

- Terminology and definitions have been changed (see Chapter 3, Chapter 3 of the 2017 edition);
- The principles have been removed (see Chapter 4 of the 2017 edition);
- The reagents have been changed (see Chapter 4, Chapter 5 in the 2017 edition);
- The instruments, equipment, and tools have been changed (see Chapter 5, Chapter 7 of the 2017 edition);
- Sampling requirements have been changed (see Chapter 6, Chapter 8 in the 2017 edition);
- The extraction process has been modified (see Chapter 7, 9.1 of the 2017 edition);
- The principles of different determination methods have been modified (see 8.1.1, 8.2.1, 8.3.1, 8.4.1, 8.5.1, Chapter 4 of the 2017 edition);

- Atomic absorption spectrometry (Atomic Absorption Spectrophotometry) has been added (see 8.2);
- Atomic fluorescence spectrometry has been added (see 8.3);
- Inductively coupled plasma atomic emission spectrometry (ICP-AES) has been added (see 8.4);
- Inductively coupled plasma mass spectrometry (ICP-MS) has been added (see 8.5).

Please note that some content in this document may involve patents. The issuing organization of this document assumes no responsibility for identifying patents.

This document was proposed by the China National Light Industry Council.

This document is under the jurisdiction of the National Technical Committee on Standardization of Glass Instruments (SAC/TC178).

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The release history of this document and the document it replaces is as follows.

- First published in 2017 as GB/T 35595-2017;
- This is the first revision.

1 Scope

This document describes the method for determining the arsenic and antimony leaching content in glass containers.

This document applies to the determination of arsenic and antimony leaching in various types of glass containers.

2 Normative references

GB/T 602

GB/T 6682

GB/T 12804

GB/T 12806

GB/T 12807

GB/T 12808

GB/T 15724

JJG768

3 Terms and Definitions

The following terms and definitions apply to this document.

3.1 glass container

Glassware that can hold substances (liquid, gas or solid particles).

3.2 flatware

A glass container with a depth of less than 25 mm from the lowest internal plane to the horizontal plane of the rim.

3.3 Small container

Containers with a volume of less than 600 mL.

3.4 large container

Containers with a volume between 600mL and 3L.

3.5 interpolation bracketing technique

Two adjacent standard solutions and the extract of the atom to be measured are taken simultaneously and measured to obtain the absorbance value of each solution.

Methods for taking instrument readings and performing calculations.

3.6 Standard curve method calibration function

An analytical method that involves determining the concentration of a series of standard solutions on an analytical instrument, plotting a concentration standard curve, and performing calculations.

4.1 Distilled water or deionized water

It should not be lower than the Class II water requirements specified in GB/T 6682.

4.2 Acetic acid (glacial acetic acid) (C₂H₄O₂)

It should be analytical grade or superior grade.

4.3 Sulfuric acid (H₂SO₄)

It should be analytical grade or superior grade.

4.4 Nitric acid (HNO₃)

It should be analytical grade or superior grade.

4.5 Hydrochloric acid (HCl)

It should be analytical grade or superior grade.

4.6 Ascorbic acid (C₆H₈O₆)

It should be analytical grade or superior grade.

4.7 Arsenic-free zinc granules (Zn)

It should be analytical grade.

4.8 Chloroform (CHCl₃)

It should be analytical grade.

4.9 Toluene (C₇H₈)

It should be analytical grade.

4.10 Potassium iodide (KI)

It should be analytical grade.

4.11 Triethanolamine (C₆H₁₅NO₃)

It should be analytical grade.

4.12 Potassium borohydride (KBH₄)

It should be analytical grade.