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

GB/T 15817-2026

Replacing GB/T 15817-1995

**Determination of mineral sulfate content in detergents -
Gravimetric method**

洗涤剂中无机硫酸盐含量的测定 重量法

(English Translation)

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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 15817-1995 "Determination of Inorganic Sulfate Content in Detergents - Gravimetric Method", and is consistent with GB/T 15817-Compared to 1995, aside from structural adjustments and editorial changes, the main technical changes are as follows.

- The reagent "95% ethanol" has been added (see 5.2);
- Added the instruments "Heated Magnetic Stirrer" and "Water Bath" (see 6.1, 6.3);
- Added "Qualitative Filter Paper" and "Quantitative Filter Paper" (see 6.5, 6.6);
- The terminology for precision has been changed (see Chapter 9, 8.2 of the 1995 edition);
- A test report has been added (see Chapter 10).

This document is modified to adopt ISO 8214:1985 "Determination of inorganic sulfate content in detergents by gravimetric method".

This document differs in structure from ISO 8214:1985. A summary table comparing the structural numbering changes between the two documents is attached.

Record A.

This document differs significantly from ISO 8214:1985 in several technical aspects. The relevant clauses are indicated in vertical single-line margins.

The lines (|) are marked. A summary of these technical differences and their causes can be

found in Appendix B.

The following editorial changes have been made to this document.

---To align with existing standards, the standard name has been changed to "Determination of Inorganic Sulfate Content in Detergents - Gravimetric Method";

---The note in the principle has been deleted (see Chapter 4 of ISO 8214:1985).

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 Surfactants and Detergents (SAC/TC272).

1 Scope

This document describes a gravimetric method for determining the inorganic sulfate content in various detergents, where other commonly present compounds do not interfere.

Measurement results.

This document applies to the determination of sulfate content in detergents containing inorganic sulfate components.

2 Normative references

The contents of the following documents, through normative references within the text, constitute essential provisions of this document. Dated citations are not included.

For references to documents, only the version corresponding to that date applies to this document; for undated references, the latest version (including all amendments) applies.

This document.

GB/T 6682 Specifications and test methods for water used in analytical laboratories (GB/T 6682-2008, ISO 3696:1987, MOD) GB/T 13173 Surfactants - Test methods for detergents (GB/T 13173-2021, ISO 607:1980, ISO 697.

1981,ISO 4313:1976,ISO 4321:1977,ISO 4325:1990,ISO 21264:2019,MOD)

3 Terms and Definitions

This document does not contain any terms or definitions that need to be defined.

4 Principles

Remove all ethanol-soluble substances from the sample by ethanol extraction. If silicates are present, dehydrate and filter, then precipitate with barium chloride.

Sulfate in the filtrate. Filter the precipitate, wash it, ignite it at 900°C, and weigh it.

5 Reagents

Unless otherwise specified, only reagents confirmed to be of analytical grade and water conforming to GB/T 6682 grade III or above shall be used in the analysis.

5.1

Anhydrous ethanol.

5.2 95% ethanol.

5.3

Hydrochloric acid.

5.4

Ammonia water.

5.5

Barium chloride solution, 100 g/L.

5.6

Silver nitrate solution, 5 g/L.

5.7

Methyl orange solution, 1 g/L.

6 Instruments

6.1

Heating the magnetic stirrer.