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

GB/T 20198-2026

Replacing GB/T 20198-2006

**Surface active agents and detergents - Determination of the
contents of hydrolyzable and non-hydrolyzable anionic-active
matter under alkaline conditions**

表面活性剂和洗涤剂 在碱性条件下可水解和不可水解阴离子活性物含量的测定
(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 replaces GB/T 20198-2006 "Surfactants and Detergents - Hydrolyzable Anionic Active Compounds under Alkaline Conditions".

"Determination of Hydrolyzable and Non-Hydrolyzable Anionic Active Compounds", compared with GB/T 20198-2006, mainly involves structural adjustments and editorial changes.

The technological changes are as follows.

---Added terminology (see Chapter 3).

This document is modified to adopt ISO 2869:1973 "Surfactants - Hydrolyzable anionic surfactants in detergents under alkaline conditions".

Determination of hydrolyzable and non-hydrolyzable anionic active substances.

This document has undergone significant structural adjustments compared to ISO 2869:1973. A table comparing the structural numbering changes between the two documents is provided.

See Appendix A.

This document differs significantly from ISO 2869:1973 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.

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 specifies a method for determining hydrolyzable anionic active substances in detergents under alkaline conditions.

This document applies to the analysis of mixtures containing hydrolyzable and non-hydrolyzable anionic actives (including dialkyl sulfosuccinate and esters).

(Fat glycerides sulfate).

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 5173-2018 Determination of Anionic Active Ingredient Content in Surfactants for Detergents - Direct Two-Phase Titration Method (GB/T 5173-2018, ISO 2271:1989, MOD)
GB/T 6682 Specifications and test methods for water used in analytical laboratories (GB/T 6682-2008, ISO 3696:1987, MOD) QB/T 2739 Preparation of test solutions for titration analysis (volume analysis) of commonly used test solutions for detergents

3 Terms and Definitions

The following terms and definitions apply to this document.

Hydrolyzable anionic active compounds Anionic surfactants containing hydrolyzable groups that can undergo hydrolysis under alkaline conditions.

Non-hydrolyzable anionic active compounds Anionic surfactants are a class of surfactants whose chemical structure and activity cannot be altered through hydrolysis in aqueous solutions.

4 Principles

According to the direct two-phase titration method described in GB/T 5173, one portion of the test solution was titrated with benzylthionine chloride solution; the other portion of the

test solution was titrated...

After hydrolysis under alkaline conditions by reflux, the unhydrolyzed anionic active compounds were titrated with benzylthionine chloride solution as before. The hydrolyzable compounds were calculated from the results.

The content of non-hydrolyzable anionic active substances.

5 Reagents

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

5.1

Sodium hydroxide solution, $c(\text{NaOH}) = 10 \text{ mol/L}$.