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

GB/T 7378-2012

Replacing GB/T 7378-1996

**Surface active agents -- Determination of alkalinity -- Titrimetric
method**

表面活性剂 碱度的测定 滴定法

(English Translation)

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Foreword

This standard is drafted in accordance with the rules given in GB/T 1.1-2009.

This standard replaces GB/T 7378-1996 "Determination of alkalinity of surfactants titration", compared with GB/T 7378-1996, the main changes are as follows.

- deleted ISO preface;
- to increase the degree of adoption;
- Added "terms and definitions" (see Chapter 3);
- Increased "repeatability" and "reproducibility" indicators (see 9.2 and 9.3);
- Added information Appendix A.

This standard uses the re-drafting method to modify ISO 4315. 1977 "Determination of alkalinity of surfactants titration".

This standard has a greater structural adjustment compared to ISO 4315. 1977, and Appendix A lists the chapters of this standard and ISO 4315. 1977 A comparison of the numbers.

The technical differences between this standard and ISO 4315. 1977 are as follows.

--- on the normative reference documents, the standard made a technical differences in the adjustment to meet China's technical conditions, adjust the situation the situation is reflected in Chapter 2, "Normative references", as follows.

Replace GB 607 (see Chapter 7) with GB/T 6372-2006 equivalent to the international

standard;

- Added reference to GB/T 601-2002 (see 5.2);
- Added references to GB/T 6682-2008 (see 5.1).
- Add Chapter 3 "Terms and Definitions" to explain the terms and definitions involved in this standard, in order to allow standard users to better Understand the meaning.
- increase 9.2 "repeatability" and 9.3 "reproducibility", require more stringent, more specific, more suited to our national conditions.

This standard is proposed by the China Petroleum and Chemical Industry Association.

This standard is under the jurisdiction of the National Chemical Standardization Technical Committee (Special) Interacting Agent Subcommittee (SAC/TC63/SC8).

The drafting of this standard unit. Zhejiang Realma Technology Co., Ltd.

1 Scope

This standard specifies a general method for the determination of alkalinity titration of surfactants.

This standard applies to solutions, slurries or powders of surfactants, which are based on carbonates, bicarbonates, hydroxide bases or free organic bases such as triethanolamine, in the form of these bases.

This method is only applicable when specified in a specific standard for a product and does not apply to soap-containing products.

2 Normative reference documents

The following documents are indispensable for the application of this document. For dated references, only the dated edition applies to this article Pieces. For undated references, the latest edition (including all modifications) applies to this document.

Preparation of standard titration solution for chemical reagents GB/T 601-2002 GB/T 6372-2006 Samples for surface active agents and detergents (ISO 607. 1980, IDT) GB/T 6682-2008 Analytical laboratory water specifications and test methods (ISO 3696. 1987, MOD)

3 Terms and definitions

The following terms and definitions apply to this document.

Alkalinity Refers to the surface active agent in aqueous solution due to a variety of decomposition reaction showed weak alkaline, and a certain amount of product

consumption of hydrochloric acid to oxidation the mass fraction of sodium indicates the degree of alkalinity of the product.

4 Principle

Some surfactants are weakly alkaline in aqueous solutions due to various decomposition reactions. With methyl orange or bromophenol blue as indicator, with hydrochloric acid Standard titration solution, and titrate the clear solution of the surfactant.

5.1 Test water

In line with GB/T 6682-2008 in the provisions of the three water requirements.

5.2 Hydrochloric acid standard titration solution

$c(\text{HCl}) = 0.1\text{mol/L}$, according to GB/T 601-2002 4.2 in the preparation and calibration.

5.3 Methyl orange indicator solution

1g methyl orange indicator dissolved in 1L water, spare.