ICS 71.100.40
CCS G 72

# NATIONAL STANDARD OF THE PEOPLE'S REPUBLIC OF CHINA



# GB/T 11277-2012

Replacing GB/T 11277-1989

## Surface active agents -- Non-ionic surface active agents -- Determination of cloud point index (water number) -- Volumetric method

**Issued on: December 31, 2012** **Implemented on: August 1, 2013**

**Issued by: General Administration of Quality Supervision, Inspection and Quarantine of the People's Republic of China, Standardization Administration of the People's Republic of China**

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## Foreword

This standard rule according to GB/T 1.1-2009 given draft.

This standard replaces GB/T 11277-1989 "surfactants non-ionic surfactant cloud point index (water number) Determination of capacity

Method ", compared with the GB/T 11277-1989, the main changes are as follows.

--- Increasing the foreword;

--- Reducing the extent of adoption as "revised adoption";

--- Added "sampling" (see Chapter 7);

--- Added "the test report" in a) and e) (see Chapter 10);

--- Increase the informative Appendix A.

This standard uses redrafted law revision adopted ISO 4320.1997 Capacity Determination "non-ionic surfactant cloud point index

law".

This standard and ISO 4320.1997, compared with more adjustment in the structure, listed in Appendix A of this standard and ISO 4320.1997's

Reg number control list.

This standard and ISO 4320.1997 and the technical differences for the following reasons.

--- On normative references, this standard has been adjusted technical differences, in order to adapt our technical conditions, the adjusted situation

Focus is reflected in the status of Chapter 2, "Normative references", the specific

adjustments are as follows.

* equivalents adoption of international standards GB/T 6372-2006 instead of ISO 607. 1980 (see Chapter 7);

* increase cited GB/T 6682-2008 (see 5.1);

* increase cited GB/T 11275-2007 (see 5.2).

--- Remove ISO 4320.1997 Chapter 8, "Sample."

The standard proposed by China Petroleum and Chemical Industry Association.

This standard by the National Standardization Technical Committee Chemistry (specialty) surfactant Technical Committee (SAC/TC63/SC8) centralized.

This standard was drafted. Zhejiang Real Technology Co., Ltd.



## 1 Scope

This standard specifies a method of non-ionic surfactant cloud point index measured --- volumetric method.

This standard applies to low alkoxylated nonionic surfactant (1 to 5 ethylene oxide groups), its hydrophobic group is composed of alcohol/alkylphenol

Or fatty acid provided (melting point thereof is lower than 30 degrees C).

This standard also applies to the alcohol, alkyl phenol or fatty acid-derived lipophilic group thereof.

## 2 Normative references

The following documents for the application of this document is essential. For dated references, only the dated edition applies to this article

Member. For undated references, the latest edition (including any amendments) applies to this document.

GB/T 6372-2006 surfactant and detergent sample division method (ISO 607. 1980, IDT)

GB/T 6682-2008 analytical laboratory use specifications and test methods (ISO 3696. 1987, MOD)

GB/T 11275-2007 surfactants Determination of moisture content (ISO 4317.1991, MOD)

## 3 Terms and Definitions

The following terms and definitions apply to this document.

3.1

Cloud point index (water number) cloudpointindex (waternumber)

A volume of a solution containing a certain amount of a surfactant, at a given temperature, the solution was turbid to produce the desired number of milliliters of water.

Principle 4

At 30 degrees C, Water is added a solution of n-propyl alcohol nonionic surface active agent, until a turbid solution equilibrium 5min, cloudy

Do not disappear, they dropped a few milliliters of water is the surfactant cloud point.

### 5.1 test water

Third grade water requirements of GB/T 6682-2008 prescribed.

### 5.2 n-propanol

Moisture < 0.2% (mass fraction) (see Determination of GB/T 11275-2007 Karl Fischer method), AR.