EESTI STANDARD

EVS-EN 13270:2001

Surface active agents - Determination of the active matter content in alkyldimethylbetaines

Surface active agents - Determination of the active matter content in alkyl dimethyl betaines

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EESTI STANDARDIKESKUS

EESTI STANDARDI EESSÕNA	NATIONAL FOREWORD
Käesolev Eesti standard EVS-EN 13270:2001 sisaldab Euroopa standardi EN 13270:2001 + AC:2002 ingliskeelset teksti. Käesolev dokument on jõustatud 16.11.2001 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes. Standard on kättesaadav Eesti standardiorganisatsioonist.	This Estonian standard EVS-EN 13270:2001 consists of the English text of the European standard EN 13270:2001 + AC:2002. This document is endorsed on 16.11.2001 with the notification being published in the official publication of the Estonian national standardisation organisation. The standard is available from Estonian standardisation organisation.

Käsitlusala: This European Standard specifies a test method for the determination of up to 1 mmol of alkyl dimethyl betaine. Monochloroacetic acid, glycolic acid, strong acids and amines do not interfere.	**Scope:** This European Standard specifies a test method for the determination of up to 1 mmol of alkyl dimethyl betaine. Monochloroacetic acid, glycolic acid, strong acids and amines do not interfere.

ICS 71.100.40

Võtmesõnad: alkyl compounds, chemical analysis and testin, chemical analysis and testing, chemical composition, chemical reagents, definition, definitions, detergents, determination of content, methyl compounds, surfactants

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Eesti Standardikeskusele kuulub standardite reprodutseerimis- ja levitamisõigus

EUROPEAN STANDARD

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English version

Surface active agents - Determination of the active matter content in alkyldimethylbetaines

Agents de surface - Dosage de la teneur en matière active dans les alkyldiméthylbétaïnes

Grenzflächenaktive Stoffe - Bestimmung des Aktivgehalts in Alkyldimethylbetainen

This European Standard was approved by CEN on 4 February 2001.

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This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the Management Centre has the same status as the official versions.

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Foreword

This European Standard has been prepared by Technical Committee CEN/TC 276 "Surface active agents", the secretariat of which is held by AFNOR.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by September 2001, and conflicting national standards shall be withdrawn at the latest by September 2001.

Annexes A, B, and C are informative.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

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1 Scope

This European Standard specifies a test method for the determination of up to 1 mmol of alkyl dimethyl betaine. Monochloroacetic acid, glycolic acid, strong acids and amines do not interfere.

2 Normative references

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies (including amendments).

EN ISO 3696, *Water for analytical laboratory use - Specification and test methods (ISO 3696:1987).*

ISO 607, *Surface active agents and detergents – Methods of sample division.*

3 Term and definition

For the purposes of this European Standard, the following term and definition apply :

3.1
active matter content
content of alkyl dimethyl betaine which can be determined by this test method, expressed in grams per 100 g.

4 Principle

Alkyl dimethyl betaines are determined by alkalimetric titration with potentiometric indication of the end point.

The sample is dissolved in isobutyl methyl ketone. Acidification with propanolic hydrochloric acid converts all the basic components into their protonated form.

In isobutyl methyl ketone, the difference in acidity between the protonated betaine, the protonated amine, the monochloroacetic acid and glycolic acid proves sufficient to determine the betaine separately from the compounds mentioned by titration with ethanolic potassium hydroxide standard volumetric solution.

Carbon dioxide is removed by stripping out with nitrogen.

5 Reagents

During the analysis use only reagents of recognized analytical grade and water complying with grade 3 as defined in EN ISO 3696.

5.1 Isobutyl methyl ketone.

5.2 Potassium hydroxide standard volumetric solution, c(KOH) = 0,1 mol/l in ethanol.

5.3 Hydrochloric acid, c(HCl) ≈ 0,1 mol/l in propan-2-ol.

5.4 Nitrogen, purity ≥ 99 % (*m/m*).

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