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EAS 216-6 (2001) (English): Ethanol for industrial use Methods of test Part ( Test for miscibility with water



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## EAST AFRICAN STANDARD

Ethanol for industrial use — Methods of test — Part 6: Test for miscibility with water

EAST AFRICAN COMMUNITY

## EAS 216-6:2001

### Foreword

Development of the East African Standards has been necessitated by the need for harmonizing requirements governing quality of products and services in East Africa. It is envisaged that through harmonized standardization, trade barriers which are encountered when goods and services are exchanged within the Community will be removed.

In order to achieve this objective, the Partner States in the Community through their National Bureaux of Standards, have established an East African Standards Committee.

The Committee is composed of representatives of the National Standards Bodies in Partner States, together with the representatives from the private sectors and consumer organizations. Draft East African Standards are circulated to stakeholders through the National Standards Bodies in the Partner States. The comments received are discussed and incorporated before finalization of standards, in accordance with the procedures of the Community.

East African Standards are subject to review, to keep pace with technological advances. Users of the East African Standards are therefore expected to ensure that they always have the latest versions of the standards they are implementing.

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East African Community

P O Box 1096

#### <u>Arusha</u>

Tanzania Tel: 255 27 2504253/8 Fax: 255-27-2504481/2504255 E-Mail: <u>eac@eachq.org</u> Web: www.each.org

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International Standard



1388/6

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION® MEX AY HAPODHAR OP CAH A SALAR TO CTAH DAPT MALUAN ORGANISATION INTERNATIONALE DE NORMALISATION

# Ethanol for industrial use — Methods of test — Part 6 : Test for miscibility with water

Éthanol à usage industriel – Méthodes d'essai – Partie 6 : Essai de miscibilité à l'eau

First edition - 1981-11-01

### Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards institutes (ISO member bodies). The work of developing International Standards is carried out through ISO technical committees. Every member body interested in a subject for which a technical committee has been set up has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work.

Draft International Standards adopted by the technical committees are circulated to the member bodies for approval before their acceptance as International Standards by the ISO Council.

International Standard ISO 1388/6 was developed by Technical Committee ISO/TC 47, *Chemistry*, and was circulated to the member bodies in February 1980.

It has been approved by the member bodies of the following countries :

Australia Austria Belgium Brazil Bulgaria China Czechoslovakia France Germany, F.R. Hungary India Italy Korea, Rep. of Netherlands Philippines Poland

Romania South Africa, Rep. of Switzerland Thailand United Kingdom USSR

No member body expressed disapproval of the document.

International Standards ISO 1388/1 to ISO 1388/12 cancel and replace ISO Recommendation R 1388-1970, of which they constitute a technical revision.

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# Ethanol for industrial use — Methods of test — Part 6 : Test for miscibility with water

#### 1 Scope and field of application

This part of ISO 1388 specifies a test for miscibility with water of ethanol for industrial use.

This document should be read in conjunction with ISO 1388/1 (see the annex).

#### 2 Principle

Addition of water to a test portion, under specified conditions, and examination for opalescence.

#### 3 Reagent

During the test, use only distilled water or water of equivalent purity.

#### 4 Apparatus

Ordinary laboratory apparatus, and

4.1 Two matched Nessler cylinders, of capacity 100 ml.

#### 5 Procedure

#### 5.1 Test portion

Take 5 ml of the laboratory sample or a different volume agreed between the interested parties.

#### 5.2 Test

Place the test portion (5.1) in one of the Nessler cylinders (4.1), and dilute with water to the 100 ml mark. Mix and adjust the temperature to about 20 °C. Place 100 ml of water in the other Nessler cylinder.

Examine the cylinder containing the test solution vertically for opalescence, against a black background with side illumination, using the second Nessler cylinder containing water as the standard.

#### 6 Expression of results

Report the dilution-ratio of the test portion and the presence or absence of opalescence.

### Annex

## ISO Publications relating to ethanol for industrial use

ISO 1388/1 - General.

ISO 1388/2 — Detection of alkalinity or determination of acidity to phenolphthalein.

ISO 1388/3 - Estimation of content of carbonyl compounds present in small amounts - Photometric method.

ISO 1388/4 - Estimation of content of carbonyl compounds present in moderate amounts - Titrimetric method.

ISO 1388/5 - Determination of aldehydes content - Visual colorimetric method.

ISO 1388/6 – Test for miscibility with water.

ISO 1388/7 – Determination of methanol content [methanol contents between 0,01 and 0,20 % (V/V)] – Photometric method.

ISO 1388/8 - Determination of methanol content [methanol contents between 0,10 and 1,50 % (V/V)] - Visual colorimetric method.

ISO 1388/9 - Determination of esters content - Titrimetric method after saponification.

ISO 1388/10 - Estimation of hydrocarbons content - Distillation method.

ISO 1388/11 - Test for detection of furfural.

ISO 1388/12 - Determination of permanganate time.

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