

**Ethanol as a blending component for  
petrol - Determination of copper content  
- Graphite furnace atomic absorption  
spectrometric method**

Ethanol as a blending component for petrol -  
Determination of copper content - Graphite furnace  
atomic absorption spectrometric method

## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN 15488:2007 sisaldab Euroopa standardi EN 15488:2007 ingliskeelset teksti.</p> <p>Käesolev dokument on jõustatud 30.10.2007 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN 15488:2007 consists of the English text of the European standard EN 15488:2007.</p> <p>This document is endorsed on 30.10.2007 with the notification being published in the official publication of the Estonian national standardisation organisation.</p> <p>The standard is available from Estonian standardisation organisation.</p>
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<p><b>Käsitlusala:</b></p> <p>This standard specifies a procedure for the determination of copper content in ethanol from 0,07 mg/kg to 0,20 mg/kg using graphite furnace atomic absorption spectrometry.</p>	<p><b>Scope:</b></p> <p>This standard specifies a procedure for the determination of copper content in ethanol from 0,07 mg/kg to 0,20 mg/kg using graphite furnace atomic absorption spectrometry.</p>
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ICS 71.080.60

Võtmesõnad:

ICS 71.080.60

English Version

Ethanol as a blending component for petrol - Determination of  
copper content - Graphite furnace atomic absorption  
spectrometric method

Éthanol comme base de mélange à l'essence -  
Détermination de la teneur en cuivre - Méthode par  
spectrométrie d'absorption atomique avec four en graphite

Ethanol zur Verwendung als Blendkomponente in  
Ottokraftstoff - Bestimmung des Kupfergehaltes -  
Graphitrohr-Atomabsorptionsspektrometrie

This European Standard was approved by CEN on 30 June 2007.

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# Contents

Page

Foreword.....	3
1 Scope .....	4
2 Normative reference .....	4
3 Terms and definitions .....	4
4 Principle.....	5
5 Reagents and materials .....	5
6 Apparatus .....	5
6.1 Atomic absorption spectrometer .....	5
7 Samples and sampling.....	6
8 Preparation of blank and calibration solutions .....	6
8.1 Intermediate calibration solution .....	6
8.2 Calibration solutions .....	6
9 Procedure .....	7
9.1 Instrument preparation .....	7
9.2 Calibration .....	7
10 Sample analysis .....	8
11 Calculation.....	8
12 Expression of results .....	8
13 Precision .....	8
13.1 Repeatability.....	8
13.2 Reproducibility.....	9
14 Test report .....	9
Annex A (informative) Example of thermal program of the graphite furnace .....	10
Bibliography .....	11

## Foreword

This document (EN 15488:2007) has been prepared by Technical Committee CEN/TC 19 “Gaseous and liquid fuels, lubricants and related products of petroleum, synthetic and biological origin”, the secretariat of which is held by NEN.

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 February 2008, and conflicting national standards shall be withdrawn at the latest by February 2008.

This document is based on IP 478 [1].

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

## 1 Scope

This standard specifies a procedure for the determination of copper content in ethanol from 0,07 mg/kg to 0,20 mg/kg using graphite furnace atomic absorption spectrometry.

NOTE For the purpose of this document, the terms “% (m/m)” and “% (V/V)” are used to represent the mass fraction, respectively the volume fraction of a material.

**WARNING — Use of this standard may involve hazardous materials, operations and equipment. This standard does not purport to address all of the safety problems associated with its use. It is the responsibility of the user of this standard to establish appropriate safety and health practices and to determine the applicability of regulatory limitations prior to use.**

## 2 Normative reference

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN ISO 3170, *Petroleum liquids — Manual sampling (ISO 3170:2004)*

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

## 3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

### 3.1

**radiant power**

***P***

rate at which energy is transported in a beam of radiant energy

### 3.2

**transmittance**

***T***

ratio of the radiant power transmitted by a material to the radiant power incident upon it

### 3.3

**absorbance**

***A***

logarithm to the base 10 of the reciprocal of the transmittance

NOTE Can be derived by the following equation:

$$A = \log (1/T) = -\log (T) \quad (1)$$

### 3.4

**integrated absorbance**

***A<sub>i</sub>***

integrated area under the absorbance peak generated by the atomic absorption spectrometer