

**NAFTASAADUSED. TUHA MÄÄRAMINE**

**Petroleum products - Determination of ash**

**EESTI STANDARDI EESSÕNA****NATIONAL FOREWORD**

See Eesti standard EVS-EN ISO 6245:2000 sisaldab Euroopa standardi EN ISO 6245:1995 ingliskeelset teksti.	This Estonian standard EVS-EN ISO 6245:2000 consists of the English text of the European standard EN ISO 6245:1995.
Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas.	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation.
Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 23.08.1995.	Date of Availability of the European standard is 23.08.1995.
Standard on kättesaadav Eesti Standardikeskusest.	The standard is available from the Estonian Centre for Standardisation.

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ICS 75.080

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Descriptors: petroleum products, crude oil, liquid fuels, lubricating oils, oil waxes, tests, ash determination

English version

**Petroleum products - Determination of ash  
(ISO 6245:1993)**

Produits pétroliers - Détermination des cendres  
(ISO 6245:1993)

Mineralölezeugnisse - Bestimmung der Asche  
(ISO 6245:1993)

This European Standard was approved by CEN on 1995-07-06. CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CEN member.

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**CEN**

European Committee for Standardization  
Comité Européen de Normalisation  
Europäisches Komitee für Normung

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## **Foreword**

The text of the International Standard from ISO/TC 28 "Petroleum products and lubricants" of the International Organization for Standardization (ISO) has been taken over as a European Standard by the Technical Committee CEN/TC 19 "Petroleum products, lubricants and related products".

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of an identical text or by endorsement, at the latest by February 1996, and conflicting national standards shall be withdrawn at the latest by February 1996.

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

## **Endorsement notice**

The text of the International Standard ISO 6245:1993 has been approved by CEN as a European Standard without any modification.

This European Standard supersedes EN 7:1974.

# Petroleum products — Determination of ash

**WARNING —** The use of this International 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 determine the applicability of regulatory limitations prior to use.

## 1 Scope

This International Standard specifies a method for the determination of the ash in the range 0,001 % (*m/m*) to 0,180 % (*m/m*) from distillate and residual fuel oils, crude oils, lubricating oils, waxes and other petroleum products, in which any ash-forming materials present are normally considered to be undesirable impurities or contaminants. The method is limited to petroleum products which are free from ash-forming additives.

### NOTES

1 With certain types of sample, the test results may not account quantitatively for all the metal compounds capable of forming an ash. This is particularly true in the case of distillate oils, for which it is necessary to use a special procedure if it is desired to determine the metal compounds.

2 This method is not intended for the analysis of unused lubricating oils containing additives; for such samples, use ISO 3987:1980, *Petroleum products — Lubricating oils and additives — Determination of sulphated ash*. Neither is it intended for the analysis of lubricating oils containing lead nor for used engine crankcase oils.

## 2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this International Standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below.

Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 3170:1988, *Petroleum liquids — Manual sampling*.

ISO 3171:1988, *Petroleum liquids — Automatic pipeline sampling*.

ISO 5272:1979, *Toluene for industrial use — Specifications*.

## 3 Principle

A test portion contained in a suitable vessel is ignited and allowed to burn until only ash and carbon remain. The carbonaceous residue is reduced to an ash by heating in a muffle furnace at 775 °C, cooled and weighed.

## 4 Apparatus

**4.1 Evaporating dish or crucible**, capacity 50 ml to 150 ml, made of platinum, silica or porcelain.

**4.2 Electric muffle furnace**, capable of maintaining a temperature of 775 °C ± 25 °C and preferably having suitable apertures at the front and rear permitting the passage of a slow natural draught of air.

**4.3 Cooling container**, not containing a desiccating agent.

**4.4 Homogenizer**, non-aerating, high-speed shear type.