Liquid petroleum products - Determination of total contamination in middle distillates, diesel fuels and fatty acid methyl esters

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NATIONAL FOREWORD

See Eesti standard EVS-EN 12662:2014 sisaldab Euroopa standardi EN 12662:2014 inglisekeelset teksti.	This Estonian standard EVS-EN 12662:2014 consists of the English text of the European standard EN 12662:2014.
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 26.02.2014.	Date of Availability of the European standard is 26.02.2014.
Standard on kättesaadav Eesti Standardikeskusest.	The standard is available from the Estonian Centre for Standardisation.

Tagasisidet standardi sisu kohta on võimalik edastada, kasutades EVS-i veebilehel asuvat tagasiside vormi või saates e-kirja meiliaadressile standardiosakond@evs.ee.

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English Version

Liquid petroleum products - Determination of total contamination in middle distillates, diesel fuels and fatty acid methyl esters

Produits pétroliers liquides - Détermination de la contamination totale des distillats moyens, des gazoles et des esters méthyliques d'acides gras

Flüssige Mineralölerzeugnisse - Bestimmung der Gesamtverschmutzung in Mitteldestillaten, Dieselkraftstoff und Fettsäure-Methylestern

This European Standard was approved by CEN on 13 December 2013.

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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 CEN-CENELEC Management Centre has the same status as the official versions.

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COMITÉ EUROPÉEN DE NORMALISATION
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Foreword

This document (EN 12662:2014) 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 August 2014, and conflicting national standards shall be withdrawn at the latest by August 2014.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

This document supersedes EN 12662:2008.

The significant technical changes between this European Standard and the previous edition are:

— extension of the scope to middle distillates, diesel fuels containing up to 30 % (*V/V*) fatty acid methyl ester (FAME) and neat FAME;

— update of the working range and precision statement based on interlaboratory study with field samples carried out in 2011 within CEN/TC 19;

— inclusion of a dilution procedure for the determination of total contamination of neat FAME;

— improved description of the filtration procedure and equipment.

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, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

1 Scope

This European Standard specifies a method for the determination of the content of undissolved substances, referred to as total contamination, in middle distillates, in diesel fuels containing up to 30 % (*V/V*) fatty acid methyl esters (FAME), and in neat FAME. The working range is from 12 mg/kg to 30 mg/kg and it was established in an interlaboratory study by applying EN ISO 4259 [1].

This European Standard in general applies to products having a kinematic viscosity not exceeding 8 mm^2/s at 20 °C, or 5 mm^2/s at 40 °C, e.g. diesel fuel as specified in EN 590 [2] and FAME as in EN 14214 [3].

This test method may be used for diesel fuels containing more than 30 % (*V/V*) FAME and for petroleum products having a kinematic viscosity exceeding 8 mm^2/s at 20 °C, or 5 mm^2/s at 40 °C, however in such cases the precision of the test method has not been defined.

NOTE 1 Excessive contamination in a fuel system can give rise to premature blocking of filters and/or hardware failure, and is therefore undesirable.

NOTE 2 For the purposes of this European Standard, the term "% (*V/V*)" is used to represent the volume fraction, φ, 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 references

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

EN 14275, *Automotive fuels — Assessment of petrol and diesel fuel quality — Sampling from retail site pumps and commercial site fuel dispensers*

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

EN ISO 3171, *Petroleum liquids — Automatic pipeline sampling (ISO 3171)*

ISO 3819, *Laboratory glassware — Beakers*

3 Terms and definitions

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

3.1
total contamination
undissolved substances retained on a filter after filtration under test conditions

3.2
absolute pressure
pressure measured relative to zero pressure or a total vacuum