

Soil quality - Determination of content of hydrocarbon in the range C10 to C40 by gas chromatography (ISO 16703:2004)

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NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN ISO 16703:2011 sisaldab Euroopa standardi EN ISO 16703:2011 ingliskeelset teksti.</p> <p>Standard on kinnitatud Eesti Standardikeskuse 29.07.2011 käskkirjaga ja jõustub sellekohase teate avaldamisel EVS Teatajas.</p> <p>Euroopa standardimisorganisatsioonide poolt rahvuslikele liikmetele Euroopa standardi teksti kättesaadavaks tegemise kuupäev on 22.06.2011.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN ISO 16703:2011 consists of the English text of the European standard EN ISO 16703:2011.</p> <p>This standard is ratified with the order of Estonian Centre for Standardisation dated 29.07.2011 and is endorsed with the notification published in the official bulletin of the Estonian national standardisation organisation.</p> <p>Date of Availability of the European standard text 22.06.2011.</p> <p>The standard is available from Estonian standardisation organisation.</p>
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ICS 13.080.10

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English Version

Soil quality - Determination of content of hydrocarbon in the range C₁₀ to C₄₀ by gas chromatography (ISO 16703:2004)

Qualité du sol - Dosage des hydrocarbures de C₁₀ à C₄₀
par chromatographie en phase gazeuse (ISO 16703:2004)

Bodenbeschaffenheit - Gaschromatographische
Bestimmung des Gehalts an Kohlenwasserstoffen von C₁₀
bis C₄₀ (ISO 16703:2004)

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Foreword

The text of ISO 16703:2004 has been prepared by Technical Committee ISO/TC 190 "Soil quality" of the International Organization for Standardization (ISO) and has been taken over as EN ISO 16703:2011 by Technical Committee CEN/TC 345 "Characterization of soils" 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of an identical text or by endorsement, at the latest by December 2011, and conflicting national standards shall be withdrawn at the latest by December 2011.

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Endorsement notice

The text of ISO 16703:2004 has been approved by CEN as a EN ISO 16703:2011 without any modification.

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Soil quality — Determination of content of hydrocarbon in the range C₁₀ to C₄₀ by gas chromatography

1 Scope

This International Standard specifies a method for the quantitative determination of the mineral oil (hydrocarbon) content in field-moist soil samples by gas chromatography.

The method is applicable to mineral oil contents (mass fraction) between 100 mg/kg and 10 000 mg/kg soil, expressed as dry matter, and can be adapted to lower limits of detection.

This International Standard is applicable to the determination of all hydrocarbons with a boiling range of 175 °C to 525 °C, of *n*-alkanes from C₁₀H₂₂ to C₄₀H₈₂, of isoalkanes, cycloalkanes, alkylbenzenes, alkylnaphthalenes and polycyclic aromatic compounds, provided that they are not absorbed on the specified column during the clean-up procedure.

This International Standard is not applicable to the quantitative determination of hydrocarbons < C₁₀ originating from gasolines.

On the basis of the peak pattern of the gas chromatogram obtained, and of the boiling points of the individual *n*-alkanes listed in Annex B, the approximate boiling range of the mineral oil and some qualitative information on the composition of the contamination can be obtained.

2 Normative references

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.

ISO 8466-1:1990, *Water quality — Calibration and evaluation of analytical methods and estimation of performance characteristics — Part 1: Statistical evaluation of the linear calibration function*

ISO 10381-1, *Soil quality — Sampling — Part 1: Guidance on the design of sampling programmes*

ISO 11465:1993, *Soil quality — Determination of dry matter and water content on a mass basis — Gravimetric method*

ISO 14507, *Soil quality — Pretreatment of samples for determination of organic contaminants*