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Second edition
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Liquid petroleum products — Determination of hydrocarbon types and oxygenates in automotive- motor gasoline and in ethanol (E85) automotive fuel — Multidimensional gas chromatography method

*Produits pétroliers liquides — Détermination des groupes
d'hydrocarbures et de la teneur en composés oxygénés de l'essence
automobile pour moteurs et du carburant à l'éthanol (E85) —
Méthode par chromatographie multidimensionnelle en phase gazeuse*



Reference number
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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established 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. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

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For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT) see the following URL: [Foreword - Supplementary information](#)

ISO 22854 was prepared by the European Committee for Standardisation (CEN) Technical Committee CEN/TC 19, *Gaseous and liquid fuels, lubricants and related products of petroleum, synthetic and biological origin*, in collaboration with Technical Committee ISO/TC 28, *Petroleum and petroleum products*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This second edition cancels and replaces the first edition (ISO 22854:2008), which has been technically revised.

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Introduction

This International Standard is an update of the first edition (ISO 22854:2008). Originally ISO 22854:2008 was used for determination of saturated, olefinic, aromatic and oxygenated hydrocarbons in automotive motor gasoline according to European fuel specifications. Recent round-robin work has shown that the scope of the method can be updated without alteration to include petrol with higher oxygen percentages than mentioned in the first edition and will now be applicable for automotive motor gasoline up to and including E10.

An interlaboratory study organized by CEN has shown that the method can also be used for high-ethanol gasoline [also called ethanol (E85) automotive fuel], provided that the sample is diluted with a component that will not interfere with any of the components or group of components that need to be analysed. Details of how to perform such analysis are given in [8.2](#).

The derived precision data for methanol do not comply with the precision calculation as presented in this International Standard. No precision calculation for methanol has been established as the need for such data has not been expressed. If methanol is present in the automotive motor gasoline sample, it is recommended that its contents is verified by the use of an appropriate test method, for instance as given in EN 228.^[1]

The test method described in this International Standard is harmonized with ASTM D6839.^[2]