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## **Petroleum products and other liquids — Ethanol — Determination of total acidity by potentiometric titration**

*Produits pétroliers et autres liquides — Éthanol — Dosage de l'acidité totale par titration potentiométrique*



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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.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see [www.iso.org/directives](http://www.iso.org/directives)).

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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](#)

The committee responsible for this document is ISO/TC 28, *Petroleum products and lubricants*, Subcommittee SC 7, *Liquid biofuels*.

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## Introduction

Diluted hydrous solutions of organic acids, e.g. acetic acid, can corrode many materials. Thus, it is necessary to determine and keep at low values the acid content in the final product.

An ethanol sample can have organic acids from the productive process, from its handling, contained in additives, or due to sample degradation or contamination. The relative content of those components can be determined by titration with a strong alkaline solution.

The numeric result of total acidity is a measure of the amount of acid components in the sample. Total acidity is used as a quality control parameter of final product to prevent long-run corrosion problems.

For this reason, final product obtained from a blend of ethanol and other fuels has to have a limited acidity.