

Petroleum products - Determination of distillation characteristics at atmospheric pressure (ISO 3405:2011)

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN ISO 3405:2011 sisaldab Euroopa standardi EN ISO 3405:2011 ingliskeelset teksti.</p> <p>Standard on kinnitatud Eesti Standardikeskuse 28.02.2011 käskkirjaga ja jõustub sellekohase teate avaldamisel EVS Teatajas.</p> <p>Euroopa standardimisorganisatsioonide poolt rahvuslikele liikmetele Euroopa standardi teksti kättesaadavaks tegemise kuupäev on 15.01.2011.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN ISO 3405:2011 consists of the English text of the European standard EN ISO 3405:2011.</p> <p>This standard is ratified with the order of Estonian Centre for Standardisation dated 28.02.2011 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 15.01.2011.</p> <p>The standard is available from Estonian standardisation organisation.</p>
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English Version

Petroleum products - Determination of distillation characteristics
at atmospheric pressure (ISO 3405:2011)

Produits pétroliers - Détermination des caractéristiques de
distillation à pression atmosphérique (ISO 3405:2011)

Mineralölerzeugnisse - Bestimmung des
Destillationsverlaufes bei Atmosphärendruck (ISO
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EUROPEAN COMMITTEE FOR STANDARDIZATION
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Foreword

This document (EN ISO 3405:2011) has been prepared by Technical Committee ISO/TC 28 "Petroleum products and lubricants" in collaboration with 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of an identical text or by endorsement, at the latest by July 2011, and conflicting national standards shall be withdrawn at the latest by July 2011.

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Endorsement notice

The text of ISO 3405:2011 has been approved by CEN as a EN ISO 3405:2011 without any modification.

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Introduction

The distillation (volatility) characteristics of hydrocarbons have an important effect on their safety and performance, especially in the case of fuels and solvents. The boiling range gives important information on composition and behaviour during storage and use, and the rate of evaporation is an important factor in the application of many solvents. Limiting values to specified distillation characteristics are applied to most distillate petroleum product specifications in order to control end-use performance and to regulate the formation of vapours which may form explosive mixtures with air or otherwise escape into the atmosphere as emissions (volatile organic compounds or VOCs).

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Petroleum products — Determination of distillation characteristics at atmospheric pressure

WARNING — The use of this International Standard may involve hazardous materials, operations and equipment. This International Standard does not purport to address all of the safety problems associated with its use. It is the responsibility of the user of this International Standard to establish appropriate safety and health practices and to determine the applicability of regulatory limitations prior to use.

1 Scope

This International Standard specifies a laboratory test method, utilizing either manual or automated equipment, for determining the distillation characteristics of light and middle distillates derived from petroleum and having initial boiling points above 0 °C and end points below approximately 400 °C.

Light distillates are typically automotive engine petrols, automotive engine petrols with up to 10 % (V/V) ethanol and aviation petrols. Middle distillates are aviation turbine fuels, kerosenes, diesel, diesel with up to 20 % (V/V) FAME (fatty acid methylesters), burner fuels and marine fuels that have no appreciable quantities of residua.

NOTE For the purposes of this International Standard, “% (V/V)” is used to represent the volume fraction of a material.

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 918, *Volatile organic liquids for industrial use — Determination of distillation characteristics*

ISO 3170, *Petroleum liquids — Manual sampling*

ISO 3171, *Petroleum liquids — Automatic pipeline sampling*

ISO 4259, *Petroleum products — Determination and application of precision data in relation to methods of test*

ISO 4788:2005, *Laboratory glassware — Graduated measuring cylinders*

3 Terms and definitions

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

3.1

decomposition point

thermometer reading (corrected) which coincides with the first indications of thermal decomposition of the liquid in the flask

NOTE Characteristic indications of thermal decomposition are an evolution of fumes and erratic thermometer readings which usually show a decided decrease after any attempt has been made to adjust the heat.