Toornafta. Veesisalduse määramine. Destillatsioonimeetod

Crude petroleum - Determination of water - Distillation method

EESTI STANDARDI EESSÕNA **NATIONAL FOREWORD**

Käesolev Eesti standard EVS-EN ISO 9029:2000 sisaldab Euroopa standardi EN ISO 9029:1995 ingliskeelset teksti. Käesolev dokument on jõustatud 11.01.2000 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes. Standard on kättesaadav Eesti standardiorganisatsioonist.	This Estonian standard EVS-EN ISO 9029:2000 consists of the English text of the European standard EN ISO 9029:1995. This document is endorsed on 11.01.2000 with the notification being published in the official publication of the Estonian national standardisation organisation. The standard is available from Estonian standardisation organisation.

Käsitlusala: Käesolev standard esitab kütteõlis vee määramise meetodi destillatsiooni teel. Täpsed andmed on võimalik määrata ainult siis, kui vee sisaldus on kuni 1% (mahuprotsent).	**Scope:**

ICS 75.040

Võtmesõnad: destillatsioonimeetod, keemiline analüüs, naftasaadused, sisalduse määramine, toorõli, vesi

EUROPEAN STANDARD
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EN ISO 9029

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Descriptors: Crude petroleum, water content, testing.

English version

Crude petroleum

Determination of water
Distillation method
(ISO 9029:1990)

Pétrole brut; détermination de la teneur en eau; méthode de distillation (ISO 9029:1990)

Rohöl; Bestimmung des Wassergehaltes; Destillationsverfahren (ISO 9029:1990)

This European Standard was approved by CEN on 1995-07-06 and is identical to the ISO Standard as referred to.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CEN member.

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 Central Secretariat has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

CEN

European Committee for Standardization
Comité Européen de Normalisation
Europäisches Komitee für Normung

Central Secretariat: rue de Stassart 36, B-1050 Brussels

Foreword

International Standard

ISO 9029:1990 Crude petroleum; determination of water; distillation method,

which was prepared by ISO/TC 28 'Petroleum products and lubricants' of the International Organization for Standardization, has been adopted by Technical Committee CEN/TC 19 'Petroleum products, lubricants and related products' as a European Standard.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, and conflicting national standards withdrawn, by February 1996 at the latest.

In accordance with the CEN/CENELEC Internal Regulations, the following countries are bound to implement this European Standard:

Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

Endorsement notice

The text of the International Standard ISO 9029:1990 was approved by CEN as a European Standard without any modification.

WARNING — The use of this International 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 determine the applicability of regulatory limitations prior to use.

1 Scope

This International Standard specifies a method for determining water in crude oil by distillation. The precision data have only been determined for water contents up to 1 % (*V*/*V*).

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this International Standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 383:1976, *Laboratory glassware — Interchangeable conical ground joints.*

ISO 3170:1988, *Petroleum liquids — Manual sampling.*

ISO 3171:1988, *Petroleum liquids — Automatic pipeline sampling.*

ISO 4259:1979, *Petroleum products — Determination and application of precision data in relation to methods of test.*

ISO 5280:1979, *Xylene for industrial use — Specification.*

3 Significance

A knowledge of the water content of crude oil is important in the refining, purchase, sale and transfer of products.

The amount of water as determined by this method is used to correct the volume involved in the custody transfer of oil.

4 Principle

A test portion is heated under reflux conditions with a water-immiscible solvent which co-distills with the water in the sample. Condensed solvent and water are continuously separated in a trap. The water settles in the graduated section of the trap, and the solvent returns to the distillation flask.

5 Apparatus

Usual laboratory apparatus, together with the following:

5.1 General.

The recommended apparatus, shown in figure 1, consists of a glass distillation flask, a condenser, a graduated glass trap and a heater. Other types of apparatus may be used for this International Standard, provided it can be demonstrated that they operate within the precision established, in accordance with ISO 4259, with the preferred apparatus.