SLOVENSKI STANDARD
oSIST prEN 14538:2024

01-februar-2024

Derivati maščob in olj – Metil estri maščobnih kislin (FAME) – Določevanje Ca, K, Mg in Na z optično emisijsko spektometrijo z induktivno sklopljeno plazmo (ICP OES)

Fat and oil derivatives - Fatty acid methyl ester (FAME) - Determination of Ca, K, Mg and Na content by optical emission spectral analysis with inductively coupled plasma (ICP OES)

Erzeugnisse aus pflanzlichen und tierischen Fetten und Ölen - Fettsäure-Methylester (FAME) - Bestimmung des Ca-, K-, Mg- und Na-Gehaltes durch optische Emissionsspektralanalyse mit induktiv gekoppeltem Plasma (ICP OES)

Produits dérivés des corps gras - Esters méthyliques d'acides gras (EMAG) - Détermination de la teneur en Ca, K, Mg et Na par spectrométrie d'émission optique avec plasma à couplage inductif (ICP OES)

Ta slovenski standard je istoveten z: **prEN 14538**

ICS:

75.160.20	Tekoča goriva	Liquid fuels

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EUROPEAN STANDARD

NORME EUROPÉENNE

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prEN 14538

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ICS 75.160.20

Will supersede EN 14538:2006

English Version

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This draft European Standard is submitted to CEN members for enquiry. It has been drawn up by the Technical Committee CEN/TC 19.

If this draft becomes a European Standard, 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.

This draft European Standard was established by CEN 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 CEN-CENELEC Management Centre has the same status as the official versions.

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Recipients of this draft are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

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Contents

Page

European foreword

This document (prEN 14538:2024) has been prepared by 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 document is currently submitted to the CEN Enquiry.

This document will supersede EN 14538:2006.

prEN 14538:2024 includes the following significant technical changes with respect to EN 14538:2006:

— update of the precision details for Ca, Mg, Na and K following the statistical analysis of new interlaboratory tests data [1] in accordance with EN ISO 4259-1 [2];

— inclusion of the determination of P content with precision details obtained from the statistical analysis of new interlaboratory tests data [1] in accordance with EN ISO 4259-1 [2];

— addition of Clause 3 “Terms and definitions” and renumbering of the other clauses accordingly;

— addition of a Bibliography section with two references.

1 Scope

This document specifies a procedure for the direct determination of the soap building elements Calcium (Ca), Magnesium (Mg), Sodium (Na) and Potassium (K) as well as Phosphorus (P) in fatty acid methyl esters (FAME) by ICP OES.

The concentrations of each component or the combinations of some to which this method is applicable are given in Table 1.

Table 1 — Scope ranges for each element

Element	Scope range mg/kg
Ca	0,31 – 5,44
Mg	0,31 – 4,57
Na	0,43 – 4,98
K	0,59 – 5,34
P	0,97 – 5,00
Ca + Mg	0,53 – 9,40
Na + K	1,05 – 9,94
Ca + Mg + Na + K	1,42 – 19,35

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

NOTE For the purposes of this document, the term "% (*V*/*V*)" is used to represent the volume fraction, φ, of a material.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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.

<std>EN ISO 3170, *Petroleum liquids — Manual sampling (ISO 3170)*</std>

3 Terms and definitions

No terms and definitions are listed in this document.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

— ISO Online browsing platform: available at https://www.iso.org/obp/

— IEC Electropedia: available at https://www.electropedia.org/