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Animal feeding stuffs - Determination of residues of organophosphorus pesticide - Gas chromatographic method

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EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN ISO 14182:2000 sisaldab Euroopa standardi EN ISO 14182:1999 ingliskeelset teksti.</p> <p>Käesolev dokument on jõustatud 12.09.2000 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN ISO 14182:2000 consists of the English text of the European standard EN ISO 14182:1999.</p> <p>This document is endorsed on 12.09.2000 with the notification being published in the official publication of the Estonian national standardisation organisation.</p> <p>The standard is available from Estonian standardisation organisation.</p>
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<p>Käsitlusala: This standard specifies a gas chromatographic method for the determination of organophosphorus pesticide residues content of animal feeding stuffs.</p>	<p>Scope: This standard specifies a gas chromatographic method for the determination of organophosphorus pesticide residues content of animal feeding stuffs.</p>
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ICS 65.120

Võtmesõnad: agricultural products, animal feeding products, chemical analysis, determination of content, food, gas phase chromatography, pesticide residues, phosphorus organic compounds

ICS 65.120

English version

Animal feeding stuffs

Determination of residues of organophosphorus pesticides – Gas chromatographic method
(ISO 14182 : 1999)

Aliments des animaux –
Détermination des résidus de
pesticides organo-phosphorés –
Méthode par chromatographie en
phase gazeuse (ISO 14182 : 1999)

Futtermittel – Bestimmung von
Organophosphorpestizid-Rückständen
– Gaschromatographisches Verfahren
(ISO 14182 : 1999)

This European Standard was approved by CEN on 1999-12-15.

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.

The European Standards exist 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, the Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, and the 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 14182 : 1999 Animal feeding stuffs – Determination of residues of organophosphorus pesticides – Gas chromatographic method,

which was prepared by ISO/TC 34 'Agricultural food products' of the International Organization for Standardization, has been adopted by Technical Committee CEN/TC 327 'Animal feeding stuffs – Methods of sampling and analysis', the Secretariat of which is held by NNI, 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 June 2000 at the latest.

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

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

Endorsement notice

The text of the International Standard ISO 14182 : 1999 was approved by CEN as a European Standard without any modification.

NOTE: Normative references to international publications are listed in Annex ZA (normative).

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1 Scope

This International Standard specifies a gas chromatographic method for the determination of the residues of organophosphorus pesticides in animal feeding stuffs.

The method is applicable to animal feeding stuffs containing residues of one or more of the following organophosphorus pesticides: azinphos-ethyl, azinphos-methyl, bromophos, carbophenothion, chlorpyrifos, chlorpyrifos-methyl, diazinon, dimethoate, ethion, fonofos, malathion, methidathion, parathion, parathion-methyl, pirimiphos-ethyl and pirimiphos-methyl.

The lower limit of determination for these organophosphorus pesticides is 0,01 µg/g.

NOTE The method is probably equally applicable to other organophosphorus pesticides such as methacrifos and fenitrothion, but it has not been validated for these pesticides.

2 Normative references

The following normative documents contain provisions which, through reference in this text, constitute provisions of this International Standard. For dated references, subsequent amendments to, or revisions of, any of these publications do not apply. However, parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below. For undated references, the latest edition of the normative documents referred to applies. Members of ISO and IEC maintain registers of currently valid International Standards.

ISO 3696, *Water for analytical laboratory use — Specification and test methods*.

ISO 6498, *Animal feeding stuffs — Preparation of test samples*.

3 Principle

A test portion is extracted with acetone. The filtered extract is diluted with water and a saturated sodium chloride solution. The pesticides are partitioned in dichloromethane. The concentrated extract is purified on a chromatographic column of 10 % water-deactivated silica gel. Gas chromatographic determination is carried out with a phosphorus-selective detector or a mass-selective detector.

4 Reagents and materials

Use only reagents of recognized analytical grade and with a purity suitable for pesticide residue analysis.

Check the purity of the reagents by performing a blank test under the same conditions as used in the method. The chromatogram should not show any interfering impurity.

WARNING — Some of the organic solvents are suspected carcinogens. Use with care.