

Animal feeding stuffs: Methods of sampling and analysis
- Determination of OCPs by GC-ECD

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

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English Version

**Animal feeding stuffs: Methods of sampling and analysis -
Determination of OCPs by GC-ECD**

Aliments des animaux: Méthodes d'échantillonnage et
d'analyse - Dosage des pesticides organochlorés (POC)
par CPG/ECD

Futtermittel - Probenahme- und
Untersuchungsverfahren - Bestimmung von OCP
mittels GC-ECD

This European Standard was approved by CEN on 6 January 2020.

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European foreword

This document (EN 15742:2020) has been prepared by Technical Committee CEN/TC 327 “Animal feeding stuffs: Methods of sampling and analysis”, 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of an identical text or by endorsement, at the latest by September 2020, and conflicting national standards shall be withdrawn at the latest by September 2020.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN shall not be held responsible for identifying any or all such patent rights.

This document supersedes EN 15742:2009.

In comparison with the previous edition, the following technical modifications have been made:

The analysis of polychlorinated biphenyls (PCBs) has been removed from this standard as current legislation on maximum limits requires sensitivity that cannot be provided by GC-ECD. Additionally, editorial changes were made.

This document has been prepared under a standardization request given to CEN by the European Commission and the European Free Trade Association.

According to the CEN-CENELEC Internal Regulations, the national standards organisations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

Introduction

This document was developed in response to Directive 2002/32/EC of the European Parliament and the Council of 7 May 2002 on undesirable substances in animal feed.

The previous edition of this document (EN 15742:2009) was fully validated by means of a collaborative study for aldrin, dieldrin, endrin, p,p'-DDT, o,p'-DDT, p,p'-TDE, pp-DDE, alpha-endosulfan, beta-endosulfan, HCB, alpha-HCH, beta-HCH and gamma-HCH. Attempts in the framework of the third Mandate from the European Commission to CEN/TC 327 to perform additional validation of the method through a full collaborative study (2017) for photo heptachlor, cis/trans nonachlor and keto-endrin were unsuccessful as no more than three laboratories volunteered to send in results [1].

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

1 Scope

This document specifies a gas chromatographic method with electron capture detection (ECD) for the determination of organochlorine pesticides (OCPs) in compound feeds and oil and fats.

The method is applicable to animal compound feed, oils and fats and fish meals with a water content up to about 20 % by weight and oil/fatty samples containing residues of one or more of the following OCPs, toxaphene and some of their isomers and degradation products:

- aldrin;
- dieldrin;
- dichlorodiphenyltrichloroethane (DDT) (the isomers 'op'-DDT', 'pp'-DDT', 'pp'-TDE' ('pp'-DDD'), and 'pp'-DDE');
- endosulfan (as the sum of α -/ β -isomers);
- endrin;
- hexachlorobenzene (HCB);
- hexachlorocyclohexane isomers α -HCH (α -BHC), β -HCH (β -BHC), γ -HCH (γ -BHC or lindane);

For the following OCPs, the method is considered a screening method. Additional in-house validation is required for reporting validated data.

- chlordane (as the sum of chlordane isomers and oxychlordane);
- endosulfan-sulphate;
- delta-keto-endrin;
- heptachlor (as the sum of heptachlor and heptachlor epoxide);
- photo-heptachlor;
- *cis*- and *trans*-nonachlor.

A limit of quantification (LOQ) for the mentioned OCPs of 5 $\mu\text{g/kg}$ is intended to be obtained. However, 10 $\mu\text{g/kg}$ applies for heptachlor, aldrin, endrin, dieldrin, and endosulfan (α -/ β - and sulphate). Individual laboratories are responsible for ensuring that the equipment that they use, achieves these limits of quantifications. The LOQs apply to the individual OCPs.

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.

EN ISO 6498, *Animal feeding stuffs - Guidelines for sample preparation (ISO 6498)*