

**Vee kvaliteet. Mõnede kloororgaaniliste
insektitsiidide, polüklorobifenüülide ja
klorobenseenide sisalduse määramine.
Gaasikromatograafiline meetod pärast
vedeliku vedelikuga ekstraheerimist**

Water quality - Determination of certain
organochlorine insecticides, polychlorinated
biphenyls and chlorobenzenes - Gas
chromatographic method after liquid-liquid
extraction

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN ISO 6468:1999 sisaldab Euroopa standardi EN ISO 6468:1996 ingliskeelset teksti. Käesolev dokument on jõustatud 12.12.1999 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes. Standard on kättesaadav Eesti standardiorganisatsioonist.	This Estonian standard EVS-EN ISO 6468:1999 consists of the English text of the European standard EN ISO 6468:1996. This document is endorsed on 12.12.1999 with the notification being published in the official publication of the Estonian national standardisation organisation. The standard is available from Estonian standardisation organisation.
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Käsitlusala: Standard kirjeldab meetodit mõnede kloororgaaniliste insektitsiidide, polüklorobifenüülide (PCB-de) ja klorobenseenide (välja arvatud mono- ja diklorobenseenide) sisalduse määramiseks joogi-, põhja-, pinna- ja heitvees. Meetod on kohaldatav proovidele, mis sisaldavad kuni 0,05 g/l heljuvaid tahkeid aineid. Orgaanilise aine, heljuvate tahkete ainete ja kolloidide juuresolekul on vastastikused mõjud arvukamad ja seega on piirtundlikkused madalamad.	Scope:
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ICS 13.060.50

Võtmesõnad: ekstraheerimismeetodid, gaaskromatograafia, keemiline analüüs, kloororgaanilised ühendid, klorobenseen, kvaliteet, polüklorobifenüül, sisalduse määramine, veereostus, veetestid, vesi

ICS 13.060.40

Descriptors: Water analysis, organochlorine insecticides, polychlorinated biphenyls, chlorobenzenes.

English version

Water quality

**Determination of certain organochlorine insecticides,
polychlorinated biphenyls and chlorobenzenes
Gas chromatographic method after liquid-liquid extraction
(ISO 6468:1996)**

Qualité de l'eau – Dosage de certains
insecticides organochlorés, des poly-
chlorobiphényles et des chlorobenzènes –
Méthode par chromatographie en phase
gazeuse après extraction liquide-liquide
(ISO 6468:1996)

Wasserbeschaffenheit – Bestimmung
ausgewählter Organochlorinsektizide,
Polychlorbiphenyle und Chlorbenzole –
Gaschromatographisches Verfahren nach
Flüssig-Flüssig-Extraktion (ISO 6468:1996)

This European Standard was approved by CEN on 1996-11-08 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 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 6468:1996 Water quality – Determination of certain organochlorine insecticides, polychlorinated biphenyls and chlorobenzenes – Gas chromatographic method after liquid-liquid extraction,

which was prepared by ISO/TC 147 'Water quality' of the International Organization for Standardization, has been adopted by Technical Committee CEN/TC 230 'Water analysis' 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 1997 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 the United Kingdom.

Endorsement notice

The text of the International Standard ISO 6468:1996 was approved by CEN as a European Standard without any modification.

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

WARNING AND SAFETY PRECAUTIONS — This method makes use of flammable and toxic organic solvents. Observe the safety regulations in effect.

The electron-capture detector (ECD) contains radionuclides. Adequate safety precautions and legal requirements must be observed.

The halogenated hydrocarbons and chloropesticides, used for the preparation of the calibration standards are toxic. Therefore, the safety regulations pertaining must be strictly observed.

1 Scope

This International Standard describes a method for determining certain organochlorine insecticides, polychlorinated biphenyls (PCBs) and chlorobenzenes (except the mono- and dichlorobenzenes) in drinking waters, ground waters, surface waters and waste waters.

The method is applicable to samples containing up to 0,05 g/l of suspended solids. In the presence of organic matter, suspended matter and colloids, interferences are more numerous and consequently the detection limits are higher.

The method described in this International Standard only gives information on specific PCB compounds but no information on the level of total PCBs.

According to the types of compounds to be detected and the source of the water, the detection limits given in table 1 are applicable for the method described in this International Standard, with waters of low organic contents.

Given the very low concentrations normally present in the waters, the problem of contamination is extremely important. The lower the level measured, the more precautions have to be observed; below concentrations of 10 ng/l, special care is necessary.

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 the 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 5667-1:1980, *Water quality — Sampling — Part 1: Guidance on the design on sampling programmes*.

ISO 5667-2:1991, *Water quality — Sampling — Part 2: Guidance on sampling techniques*.

3 Principle

Liquid-liquid extraction of organochlorine insecticides, chlorobenzenes and PCBs by an extraction solvent. After the concentration of the components with low volatility and after any clean-up steps which may be necessary, the sample extracts are analysed by gas chromatography, using an electron-capture detector.