

Water quality - Determination of selected polybrominated diphenyl ethers in sediment and sewage sludge - Method using extraction and gas chromatography/mass spectrometry

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NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN ISO 22032:2009 sisaldab Euroopa standardi EN ISO 22032:2009 ingliskeelset teksti.</p> <p>Standard on kinnitatud Eesti Standardikeskuse 31.07.2009 käskkirjaga ja jõustub sellekohase teate avaldamisel EVS Teatajas.</p> <p>Euroopa standardimisorganisatsioonide poolt rahvuslikele liikmetele Euroopa standardi teksti kättesaadavaks tegemise kuupäev on 25.02.2009.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN ISO 22032:2009 consists of the English text of the European standard EN ISO 22032:2009.</p> <p>This standard is ratified with the order of Estonian Centre for Standardisation dated 31.07.2009 and is endorsed with the notification published in the official bulletin of the Estonian national standardisation organisation.</p> <p>Date of Availability of the European standard text 25.02.2009.</p> <p>The standard is available from Estonian standardisation organisation.</p>
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ICS 13.060.50

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English Version

Water quality - Determination of selected polybrominated diphenyl ethers in sediment and sewage sludge - Method using extraction and gas chromatography/mass spectrometry (ISO 22032:2006)

Qualité de l'eau - Dosage d'une sélection d'éthers diphenyliques polybromés dans des sédiments et des boues d'épuration - Méthode par extraction et chromatographie en phase gazeuse/spectrométrie de masse (ISO 22032:2006)

Wasserbeschaffenheit - Bestimmung ausgewählter polybromierter Diphenylether in Sediment und Klärschlamm - Verfahren mittels Extraktion und Gaschromatographie/Massenspektrometrie (ISO 22032:2006)

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Foreword

The text of ISO 22032:2006 has been prepared by Technical Committee ISO/TC 147 "Water quality" of the International Organization for Standardization (ISO) and has been taken over as EN ISO 22032:2009 by Technical Committee CEN/TC 230 "Water analysis" the secretariat of which is held by DIN.

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 August 2009, and conflicting national standards shall be withdrawn at the latest by August 2009.

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Endorsement notice

The text of ISO 22032:2006 has been approved by CEN as a EN ISO 22032:2009 without any modification.

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Introduction

The user should be aware that particular problems could require the specification of additional marginal conditions.

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WARNING — Persons using this International Standard should be familiar with normal laboratory practice. This standard does not purport to address all of the safety problems, if any, associated with its use. It is the responsibility of the user to establish appropriate safety and health practices and to ensure compliance with any national regulatory conditions.

IMPORTANT — It is absolutely essential that tests conducted according to this standard be carried out by suitably trained staff.

1 Scope

This International Standard specifies a method for the determination of selected polybrominated diphenyl ethers (PBDE) (see Figure 1 and Table 1) in sediment and sludge using gas chromatography/mass spectrometry (GC-MS) in the electron impact (EI) or negative ion chemical ionization (NCI) mode.

When using GC-EI-MS, the method is applicable to samples containing 0,05 µg/kg to 25 µg/kg of tetra- to octabromo congeners and 0,3 µg/kg to 100 µg/kg of decabromo diphenyl ether (BDE-209), respectively. Approximately ten times lower concentrations can be quantified when using GC-NCI-MS. The risk of misinterpretation of interfering substances is smaller with EI due to its higher specificity. It is also possible to analyse other brominated diphenyl ethers according to this International Standard, after verifying its applicability in each case.

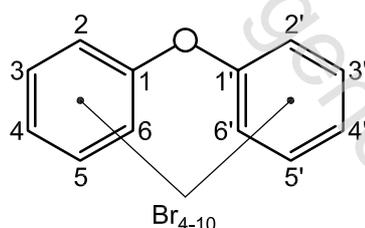


Figure 1 — Chemical formula of polybrominated diphenyl ethers