

**Naftasaadused ja vanaõli. PCB-de ja sarnaste
saaduste määramine. Osa 2: Polüklooritud
bifenüülide (PCB) sisalduse arvutamine**

Petroleum products and used oils - Determination of
PCBs and related products - Part 2: Calculation of
polychlorinated biphenyl (PCB) content

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN 12766-2:2005 sisaldab Euroopa standardi EN 12766-2:2001 ingliskeelset teksti.</p> <p>Standard on kinnitatud Eesti Standardikeskuse 19.12.2001 käskkirjaga ja jõustub sellekohase teate avaldamisel EVS Teatajas.</p> <p>Euroopa standardimisorganisatsioonide poolt rahvuslikele liikmetele Euroopa standardi teksti kättesaadavaks tegemise kuupäev on 18.07.2001.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN 12766-2:2005 consists of the English text of the European standard EN 12766-2:2001.</p> <p>This standard is ratified with the order of Estonian Centre for Standardisation dated 19.12.2001 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 18.07.2001.</p> <p>The standard is available from Estonian standardisation organisation.</p>
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Võtmesõnad: määrdeained, naftasaadused, vanaõli

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English version

**Petroleum products and used oils – Determination
of PCBs and related products**

Part 2: Calculation of polychlorinated biphenyl (PCB) content

Produits pétroliers et huiles usagées – Détermination des PCBs et produits connexes – Partie 2: Calcul de la teneur en polychlorobiphényles (PCB)

Mineralölerzeugnisse und Gebrauchtöle – Bestimmung von PCBs und verwandten Produkten – Teil 2: Berechnung des Gehaltes an polychlorierten Biphenylen (PCB)

This European Standard was approved by CEN on 2000-06-09.

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Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Management Centre or to any CEN member.

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CEN

European Committee for Standardization
Comité Européen de Normalisation
Europäisches Komitee für Normung

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Foreword

This European Standard has been prepared by Technical Committee CEN/TC 19 'Petroleum products, lubricants and related products', the Secretariat of which is held by NEN.

This European Standard is one of a series of standards as listed below:

Part 1: Separation and determination of selected PCB¹⁾ congeners by gas chromatography (GC) using an electron capture detector (ECD)

Part 2: Calculation of polychlorinated biphenyl (PCB)¹⁾ content

Part 3: Determination and calculation of PCB¹⁾ related products²⁾

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 January 2002 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.

¹⁾ PCBs as defined in Council Directive 96/59/EC of 16 September 1996 on the disposal of polychlorinated biphenyls and polychlorinated terphenyls. The definition includes PCBs proper, PCTs and polychlorinated benzyltoluenes (PCBTs) (trade name: 'Ugilec').

²⁾ Part 3 is under preparation

1 Scope

This standard specifies two calculation procedures ("method A" and "method B") for PCB content. The basis for this quantification is taken from the chromatographic results of EN 12766-1:2000 in which all necessary experimental procedures are described for the specific analysis of unused, used and treated (e.g. dechlorinated) petroleum products including synthetic lubricating oils and mixtures of vegetable oils. The method is also applicable to petroleum products and synthetic lubricating oils suitably recovered from other materials, e.g. from waste materials. Both methods have different strengths and weaknesses which are described in the next paragraphs and which must be considered before use in a specific application. Proper application of either method A or method B needs to be carefully considered before use in a specific application.

Using method A, special care needs to be exercised to avoid interferences from non PCB substances which may occur in the chromatogram. Therefore, method A can be used predominantly for the analysis of used and unused insulating oils. It is recommended not to use calculation method A without special precautions for other than above-mentioned products. Calculation method A can produce two alternative sets of results, ("All Probables" and "All Possibles"). Therefore, care needs to be taken in order to interpret these results in the correct manner.

Method B uses as intermediate result the sum of six congeners, which belong to the most abundant in almost all technical PCB materials, thereby minimizing potential interferences from other (coeluting) non PCB substances. To obtain the PCB content, the intermediate sum from six congeners needs to be multiplied by a multiplication factor. Calculation Method B can be used predominantly for the analysis of liquids from used and waste materials of unknown origin and for samples with low PCB contents.

2 Normative references

This European Standard incorporates, by dated and undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies (including amendments).

EN 12766-1:2000, *Petroleum products and used oils - Determination of PCBs and related products - Part 1: Separation and determination of selected PCB congeners by gas chromatography (GC) using an electron capture detector (ECD)*

EN 61619, *Insulating liquids - Contamination by polychlorinated biphenyls (PCBs) - Method of determination by capillary column gas chromatography (IEC 61619:1997)*

EN ISO 4259, *Petroleum products - Determination and application of precision data in relation to methods of test (ISO 4259:1992/Cor 1:1993)*