

Ambient Air Quality - Standard method for the measurement of benzene concentrations - Part 3: Automated pumped sampling with in situ gas chromatography

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EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN 14662-3:2005 sisaldab Euroopa standardi EN 14662-3:2005 ingliskeelset teksti.</p> <p>Käesolev dokument on jõustatud 15.07.2005 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN 14662-3:2005 consists of the English text of the European standard EN 14662-3:2005.</p> <p>This document is endorsed on 15.07.2005 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:</p> <p>This part of EN 14662 is in accordance with the generic methodology selected as the basis of the European Union Reference Method for the determination of benzene in ambient air [1] for the purpose of comparison of measurement results with limit values with a one-year reference period.</p>	<p>Scope:</p> <p>This part of EN 14662 is in accordance with the generic methodology selected as the basis of the European Union Reference Method for the determination of benzene in ambient air [1] for the purpose of comparison of measurement results with limit values with a one-year reference period.</p>
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Võtmesõnad: air, air quality, ambient air, automatic, benzene

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English version

**Ambient Air Quality - Standard method for the measurement of
benzene concentrations - Part 3: Automated pumped sampling
with in situ gas chromatography**

Qualité de l'air ambiant - Méthode pour le mesurage des
concentrations en benzène - Partie 3 - Échantillonnage par
pompage automatique suivi d'une chromatographie en
phase gazeuse in situ

Luftbeschaffenheit - Standardverfahren zur Bestimmung
von Benzolkonzentrationen - Teil 3: Automatische
Probenahme mit einer Pumpe mit gaschromatographischer
In-situ-Bestimmung

This European Standard was approved by CEN on 21 March 2005.

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, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.



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Foreword

This European Standard (EN 14662-3:2005) has been prepared by Technical Committee CEN/TC 264 "Air quality", 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 November 2005, and conflicting national standards shall be withdrawn at the latest by November 2005.

This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive 2000/69/EC and EU Directive 96/62 EC.

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

1 Scope

This part of EN 14662 is in accordance with the generic methodology selected as the basis of the European Union Reference Method for the determination of benzene in ambient air [1] for the purpose of comparison of measurement results with limit values with a one-year reference period.

The standard describes guidelines for measurements with, and type approval of, automated gas chromatographs. The use of automated instruments gives this part a different structure compared to the other parts including the procedure for selecting an appropriate automated gas chromatograph by means of type approval tests.

Requirements for use in the field are also described.

The standard is applicable to measurements of airborne benzene vapour in the concentration range from 0 $\mu\text{g}/\text{m}^3$ to 50 $\mu\text{g}/\text{m}^3$ (Standardised to 101,3 kPa and 293 K). This concentration range represents the certification range for benzene in the type approval test.

2 Normative references

The following referenced documents are indispensable for the application 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.

ENV 13005, *Guide to the expression of uncertainty in measurement*

EN ISO 14956, *Air quality - Evaluation of the suitability of a measurement procedure by comparison with a required measurement uncertainty (ISO 14956:2002)*

EN ISO/IEC 17025 General requirements for the competence of testing and calibration laboratories (ISO/IEC 17025:1999)

ISO 5725-2:1994, *Accuracy (trueness and precision) of measurement methods and results - Part 2: Basic method for the determination of repeatability and reproducibility of a standard measurement method*

ISO 5725-3:1995, *Accuracy (trueness and precision) of measurement methods and results - Part 3: Intermediate measures of the precision of a standard measurement method*

ISO 6142: 2001 Gas analysis – Preparation of calibration gas mixtures - Gravimetric method

ISO 6143 Gas analysis – Determination of the composition of calibration gas mixtures – Comparison methods

ISO 6144 Gas analysis - Preparation of calibration gas mixtures - Static volumetric method

ISO 6145 (all parts) Gas analysis - Preparation of calibration gas mixtures - Dynamic volumetric methods

3 Terms and definitions

For the purposes of this European Standard the following terms and definitions apply.

3.1

Ambient air

outdoor air in the troposphere