Air quality - Stationary source emmissions - Manual method of determination of the concentration of total mercury

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EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

| Käesolev Eesti standard EVS-EN |
|---------------------------------------|
| 13211:2001 sisaldab Euroopa standardi |
| EN 13211:2001 + AC:2005 ingliskeelset |
| teksti. |

Käesolev dokument on jõustatud 18.06.2001 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.

Standard on kättesaadav Eesti standardiorganisatsioonist.

This Estonian standard EVS-EN 13211:2001 consists of the English text of the European standard EN 13211:2001 + AC:2005.

This document is endorsed on 18.06.2001 with the notification being published in the official publication of the Estonian national standardisation organisation.

The standard is available from Estonian standardisation organisation.

Käsitlusala:

This European Standard specifies a manual reference method for the determination of the mass concentration of mercury in exhaust gases from ducts or chimneys.

Scope:

This European Standard specifies a manual reference method for the determination of the mass concentration of mercury in exhaust gases from ducts or chimneys.

ICS 13.040.40

Võtmesõnad: analysis, chemical analysis and testin, consistency, mer, pollution control, pollution of the air, quality, reference methods, sampling, sampling methods, side testers, specification (approval), specifications, stationary, test equipment, testing, waste treatment

EUROPEAN STANDARD NORME EUROPÉENNE EUROPÄISCHE NORM

EN 13211

January 2001

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ICS 13.040.40

English version

Air quality - Stationary source emissions

Manual method of determination of the concentration of total mercury

Qualité de l'air – Emissions de sources fixes – Méthode manuelle de détermination de la concentration en mercure total Luftqualität – Emissionen aus stationären Quellen – Manuelles Verfahren zur Bestimmung der Gesamtquecksilber-Konzentration

This European Standard was approved by CEN on 2001-01-06.

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 Management Centre or to any CEN member.

The European Standards exist 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 Management Centre has the same status as the official versions.

CEN members are the national standards bodies of 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.

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 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 July 2001, and conflicting national standards shall be withdrawn at the latest by July 2001.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom. 2/25

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1 Scope

This European standard specifies a manual reference method for the determination of the mass concentration of mercury in exhaust gases from ducts or chimneys. This European standard is validated for the determination of the mass concentration of total mercury in exhaust gases from the incineration of waste for the concentration range of total mercury from 0,001 mg/m³ to 0,5 mg/m³¹). The method may be applicable for exhaust gases from other sources with the following typical composition:

from 0 mg/m³ to 20 mg/m³ total suspended matter from 0 mg/m³ to 10 mg/m³ C_xH_v from 0 mg/m³ to 50 mg/m³ **HCI** from 0 mg/m³ to 10 mg/m³ HF from 0 mg/m³ to 250 mg/m³ SO₂ from 0 mg/m³ to 250 mg/m³ CO from 0 mg/m³ to 500 mg/m³ NO_v CO₂ from 0 % (volume fraction) to 15 % (volume fraction) $H_2O(g)$ from 2 % (volume fraction) to 25 % (volume fraction) (actual) from 8 % (volume fraction) to 15 % (volume fraction) (dry, actual) O_2 from 60 °C to 140 °C temperature

2 Normative references

This European Standard incorporates by dated or 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 1483 Water quality — Determination of mercury.

prEN 13284-1:1998 Stationary source emissions — Determination of low range mass concentrations of dust

- Part 1: Manual gravimetric method.

3 Terms and definitions

For the purpose of this European Standard, the following terms and definitions apply:

3.1

mercury

mercury and mercury in its compounds

3.2

total mercury

sum of the mercury in exhaust gas independent from the state (gaseous, solved in droplets, solid, absorbed on particles)

3.3

representative sampling

isokinetic, flow equivalent sampling at the required minimum number of sampling points in the sampling plane as stated in the prEN 13284-1:1998

 $^{^{1)}}$ m³ expressed as m³ under dry conditions, normalized to 0 °C and 101,325 kPa and at 11 % (volume fraction) O₂ (unless otherwise stated).