

**Vee kvaliteet. Kaadmiumisisalduse
määramine aatomabsorptsioon-
spektromeetria abil**

Water quality - Determination of cadmium by atomic
absorption spectrometry

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN ISO 5961:1999 sisaldab Euroopa standardi EN ISO 5961:1995 ingliskeelset teksti.</p> <p>Käesolev dokument on jõustatud 12.12.1999 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN ISO 5961:1999 consists of the English text of the European standard EN ISO 5961:1995.</p> <p>This document is endorsed on 12.12.1999 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>Standard esitab kaks meetodit kaadmiumisisalduse määramiseks: leek-aatomabsorptsioon-spektromeetria (AAS) (jaotis 2) ja elektrotermiline atomiseerimis-aatomabsorptsioon-spektromeetria (AAS) (jaotis 3).</p>	<p>Scope:</p>
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ICS 13.060.50

Võtmesõnad: aatomabsorptsioon-spektromeetriline meetod, kaadmium, keemiline analüüs, kvaliteet, sisalduse määramine, veetestid, vesi

ICS 13.060.40

Descriptors: Water quality, water analysis, testing, cadmium content.

English version

Water quality

**Determination of cadmium by atomic absorption spectrometry
(ISO 5961:1994)**

Qualité de l'eau; dosage du cadmium par
spectrométrie d'absorption atomique
(ISO 5961:1994)

Wasserbeschaffenheit; Bestimmung von
Cadmium durch Atomabsorptions-
spektrometrie (ISO 5961:1994)

This European Standard was approved by CEN on 1994-11-14 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 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 5961:1994 Water quality; determination of cadmium by atomic absorption spectrometry, 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 September 1995 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 United Kingdom.

Endorsement notice

The text of the International Standard ISO 5961:1994 was approved by CEN as a European Standard without any modification.

Section 1: General

1.1 Scope

This International Standard specifies two methods for the determination of cadmium: flame atomic absorption spectrometry (AAS) (Section 2) and electrothermal atomization (AAS) (Section 3).

1.1.1 Determination of cadmium using AAS in an air-acetylene flame

The method is applicable to the analysis of water and waste water when the concentration of cadmium is between 0,05 mg/l and 1 mg/l. Higher concentrations can be determined after dilution of the sample. The range of application of the method can be extended to lower concentrations by carefully evaporating the water sample, previously acidified with nitric acid. Cadmium can be determined in sludges and sediments after an appropriate digestion procedure avoiding the formation of a precipitate.

1.1.2 Determination of cadmium by electrothermal atomization AAS

The method is suitable for the determination of cadmium in water when, with a dosing volume of 10 µl,

the concentration range is 0,3 µg/l to 3 µg/l. The range of application of the method can be extended to higher concentrations by diluting the water sample or by the use of smaller dosing volumes. Cadmium can be determined in sludges and sediments after an appropriate digestion procedure.

1.2 Normative reference

The following standard contains provisions which, through reference in this text, constitute provisions of this International Standard. At the time of publication, the edition indicated was valid. All standards are subject to revision, and parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent edition of the standard indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 5667-3:—¹⁾, *Water quality — Sampling — Part 3: Guidance on the preservation and handling of samples.*

1) To be published. (Revision of ISO 5667-3:1985)