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**Vee kvaliteet. Orgaaniliste ühendite "täieliku" aeroobse biolagundatavuse hindamine veekeskkonnas. Meetod lahustunud orgaanilises aines sisalduva süsiniku (DOC) määramisega**

Water quality - Evaluation in an aqueous medium of the "ultimate" aerobic biodegradability of organic compounds - Method by analysis of dissolved organic carbon (DOC)

## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN ISO 7827:1999 sisaldab Euroopa standardi EN ISO 7827:1995 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 7827:1999 consists of the English text of the European standard EN ISO 7827:1995.</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><b>Käsitlusala:</b> Standard esitab meetodi etteantud kontsentratsiooniga orgaaniliste ühendite "täieliku" biolagundatavuse hindamiseks aeroobsete mikroorganismide toimet. Meetod on kohaldatav orgaanilistele ühenditele, mis on: kasutuskontsentratsioonil lahustuvad, mittelenduvad, klaasil ja aktiivmudal oluliselt mitteadsorbeeruvad, testi mikroorganismidele pidurdavat mõju mitteavaldavad.</p>	<p><b>Scope:</b></p>
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**ICS** 13.060.70

**Võtmesõnad:** aeroobne bakter, biolagundatavus, kvaliteet, määramine, orgaanilised ühendid, testid, veereostus, veetestid, vesi

ICS 13.060.40

Descriptors: Water analysis, biodegradability, organic compounds.

**English version**

Water quality

Evaluation in an aqueous medium of the 'ultimate' aerobic  
biodegradability of organic compounds

Method by analysis of dissolved organic carbon (DOC)

(ISO 7827:1994)

Qualité de l'eau, évaluation en milieu  
aqueux de la biodégradabilité aérobie  
'ultime' des composés organiques;  
méthode par analyse du carbone  
organique dissous (COD) (ISO 7827:1994)

Wasserbeschaffenheit; Bestimmung der  
vollständigen aeroben biologischen Ab-  
baubarkeit organischer Stoffe in einem  
wäßrigen Medium; Verfahren mittels  
Analyse des gelösten organischen  
Kohlenstoffs (DOC) (ISO 7827:1994)

This European Standard was approved by CEN on 1995-11-30 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 7827:1994 Water quality; evaluation in an aqueous medium of the 'ultimate' aerobic biodegradability of organic compounds; method by analysis of dissolved organic carbon (DOC),

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 June 1996 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 7827:1994 was approved by CEN as a European Standard without any modification.

NOTE: Normative references to international publications are listed in Annex ZA (normative).

**WARNING — Safety precautions — Activated sludge and sewage may contain potentially pathogenic organisms. Therefore appropriate precautions should be taken when handling them. Toxic test compounds and those whose properties are unknown should be handled with care.**

## 1 Scope

This International Standard specifies a method for the evaluation of the "ultimate" biodegradability of organic compounds at a given concentration by aerobic microorganisms.

The conditions described in this International Standard do not necessarily always correspond to the optimal conditions allowing the maximum degree of biodegradation to occur.

The method applies to organic compounds which are

- soluble at the concentration used under the conditions of the test (10 mg/l to 40 mg/l DOC);
- non-volatile, or having a negligible vapour pressure under the conditions of the test (see note 5 in 8.3);
- not significantly adsorbable on glass and activated sludge (see note 6 in 8.3);
- not inhibitory to the test microorganisms at the concentration chosen for the test. Inhibitory effects can be determined as described in 8.3. or by using any other method for determining the inhibitory effect on bacteria of a substance (e.g. ISO 8192).

## 2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this International Standard. At the time of publication, the editions indicated were 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 editions of the standards indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 8192:1986, *Water quality — Test for inhibition of oxygen consumption by activated sludge.*

ISO 8245:1987, *Water quality — Guidelines for the determination of total organic carbon (TOC).*

ISO 9408:1991, *Water quality — Evaluation in an aqueous medium of the "ultimate" aerobic biodegradability of organic compounds — Method by determining the oxygen demand in a closed respirometer.*

ISO 9439:1990, *Water quality — Evaluation in an aqueous medium of the "ultimate" aerobic biodegradability of organic compounds — Method by analysis of released carbon dioxide.*

ISO 9887:1992, *Water quality — Evaluation of the aerobic biodegradability of organic compounds in an*