

**Vee kvaliteet. Orgaaniliste ühendite  
aeroobse biolagundatavuse hindamine  
veekeskkonnas. Poolpidev  
aktiivmudameetod (SCAS)**

Water quality - Evaluation of the aerobic  
biodegradability of organic compounds in an  
aqueous medium - Semi-continuous activated  
sludge method (SCAS)

## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN ISO 9887:1999 sisaldab Euroopa standardi EN ISO 9887:1994 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 9887:1999 consists of the English text of the European standard EN ISO 9887:1994.</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></p> <p>Standard esitab meetodi orgaaniliste ühendite ("täieliku" või "primaarse") biolagundatavuse hindamiseks. Käesolevas standardis kirjeldatud tingimused on biolagundatavuseks palju soodsamad kui standardites ISO 7827, ISO 9408 ja ISO 9439 kirjeldatud biolagundatavuse meetodite tingimused.</p>	<p><b>Scope:</b></p>
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**ICS** 13.060.70

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

UDC 13.060.40

Descriptors: Water quality, testing, biodegradability, analysis, activated sludge.

**English version**

**Water quality**

**Evaluation of the aerobic biodegradability of organic compounds  
in an aqueous medium by the semi-continuous activated  
sludge method (SCAS)  
(ISO 9887:1992)**

Qualité de l'eau; Évaluation, en milieu  
aqueux, de la biodégradabilité aérobie  
des composés organiques; méthode  
semi-continue par boues activées  
(Méthode SCAS) (ISO 9887:1992)

Wasserbeschaffenheit; Bestimmung der  
aeroben biologischen Abbaubarkeit  
organischer Stoffe im wässrigen Medium;  
halbkontinuierlicher Belebtschlammtest  
(SCAS) (ISO 9887:1992)

This European Standard was approved by CEN on 1994-10-14 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 9887:1992 Water quality; evaluation of the aerobic biodegradability of organic compounds in an aqueous medium; semi-continuous activated sludge method (SCAS),

which was prepared by ISO/TC 147 'Water quality' 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 April 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 9887:1992 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 biodegradability ("ultimate" or "primary") of organic compounds. The conditions described in this International Standard are much more favorable for biodegradation than those specified in the methods for biodegradability described in ISO 7827, ISO 9408 and ISO 9439.

The method applies to organic compounds which are

- a) soluble at the concentration used under the test conditions;
- b) non-volatile, or which have a negligible vapour pressure under the test conditions;
- c) not lost by foaming from the test solution;
- d) not significantly adsorbable on glass and activated sludge;
- e) not inhibitory to the test micro-organisms at the concentration chosen for the test. Inhibitory effects can be determined by using a suitable test method (e.g. see ISO 8192). If the test compound is toxic, the test concentration has to be lower or a pre-exposed inoculum can be used.

NOTE 1 Additionally, or alternatively, the semi-continuous activated sludge (SCAS) units may be used to provide sludge exposed to the test compound, in order to see whether the sludge becomes adapted, to be used as inocula in other biodegradation tests.

## 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 7827:1984, *Water quality — Evaluation in an aqueous medium of the "ultimate" aerobic biodegradability of organic compounds — Method by analysis of dissolved organic carbon (DOC)*.

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*.