

#### SLOVENSKI STANDARD SIST EN ISO 17994:2004

01-november-2004

Kakovost vode - Merila za ugotavljanje enakovrednosti mikrobioloških metod (ISO 17994:2004)

Water quality - Criteria for establishing equivalence between microbiological methods (ISO 17994:2004)

Wasserbeschaffenheit - Kriterien für die Feststellung der Gleichwertigkeit von mikrobiologischer Verfahren (ISO 17994 2004): DEVIEW

Qualité de l'eau - Criteres pour établir l'équivalence entre les méthodes microbiologiques (ISO 17994:2004)

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Ta slovenski standard je istoveten z: EN ISO 17994-2004

ICS:

07.100.20 Mikrobiologija vode Microbiology of water

SIST EN ISO 17994:2004 en,fr,de

**SIST EN ISO 17994:2004** 

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EUROPEAN STANDARD NORME EUROPÉENNE **EN ISO 17994** 

EUROPÄISCHE NORM

May 2004

ICS 07.100.20; 13.060.70

#### English version

### Water quality - Criteria for establishing equivalence between microbiological methods (ISO 17994:2004)

Qualité de l'eau - Critères pour établir l'équivalence entre les méthodes microbiologiques (ISO 17994:2004)

Wasserbeschaffenheit - Kriterien für die Feststellung der Gleichwertigkeit von mikrobiologischen Verfahren (ISO 17994:2004)

This European Standard was approved by CEN on 9 April 2004.

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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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EUROPEAN COMMITTEE FOR STANDARDIZATION COMITÉ EUROPÉEN DE NORMALISATION EUROPÄISCHES KOMITEE FÜR NORMUNG

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EN ISO 17994:2004 (E)

#### **Foreword**

This document (EN ISO 17994:2004) has been prepared by Technical Committee ISO/TC 147 "Water quality" in collaboration with Technical Committee CEN/TC 230 "Water analysis", 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 2004, and conflicting national standards shall be withdrawn at the latest by November 2004.

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, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

#### **Endorsement notice**

The text of ISO 17994:2004 has been approved by CEN as EN ISO 17994:2004 without any modifications.

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### INTERNATIONAL STANDARD

ISO 17994

First edition 2004-05-15

# Water quality — Criteria for establishing equivalence between microbiological methods

Qualité de l'eau — Critères pour établir l'équivalence entre les méthodes microbiologiques

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Published in Switzerland

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#### **Foreword**

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 17994 was prepared by Technical Committee ISO/TC 147, *Water quality*, Subcommittee SC 4, *Microbiological methods*.

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#### Introduction

This International Standard presents the criteria and procedures for assessing the average quantitative equivalence of the results obtained by two microbiological analytical methods one of which may but need not be a standard or reference method.

The methods considered are based on counts of colonies or of positive and negative liquid enrichment tubes (MPN and presence/absence methods).

NOTE It is possible that a method that is not quantitatively equivalent with a reference method would be accepted, especially if it appears "better" than the reference either quantitatively or otherwise.

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### Water quality — Criteria for establishing equivalence between microbiological methods

WARNING — Persons using this International Standard should be familiar with normal laboratory practice. This International Standard does not purport to address all of the safety problems, if any, associated with its use. It is the responsibility of the user to establish appropriate safety and health practices and to ensure compliance with any national regulatory conditions.

#### 1 Scope

This International Standard defines an evaluation procedure for comparing two methods intended for the detection or quantification of the same target group or species of microorganisms.

This International Standard provides the mathematical basis for the evaluation of the average relative performance of two methods against chosen criteria of equivalence.

Any two enumeration methods based on counts (of colonies or positive tubes) or any two detection methods [presence/absence (P/A) methods] intended for the same purpose can be compared.

This International Standard provides no solution to directly compare a quantitative method (colony count or MPN) with a detection method (P/A).

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#### 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.

ISO/TR 13843:2000, Water quality — Guidance on validation of microbiological methods

#### 3 Terms, definitions and symbols

#### 3.1 Terms and definitions

For purposes of this document, the following terms and definitions apply.

#### 3.1.1 General terms

#### 3.1.1.1

#### reference method

prescribed analytical method to analyse a given group or species of microorganisms

NOTE As a rule, the reference method is a standard or a commonly used method.

#### 3.1.1.2

#### trial method

any method which is to be tested for equivalence with a reference method