

**Water quality - Detection and enumeration of
Legionella - Part 2: Direct membrane filtration
method for waters with low bacterial counts**

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EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN ISO 11731-2:2008 sisaldab Euroopa standardi EN ISO 11731-2:2008 ingliskeelset teksti.

Standard on kinnitatud Eesti Standardikeskuse 19.05.2008 käskkirjaga ja jõustub sellekohase teate avaldamisel EVS Teatajas.

Euroopa standardimisorganisatsioonide poolt rahvuslikele liikmetele Euroopa standardi teksti kättesaadavaks tegemise kuupäev on 19.03.2008.

Standard on kättesaadav Eesti standardiorganisatsioonist.

This Estonian standard EVS-EN ISO 11731-2:2008 consists of the English text of the European standard EN ISO 11731-2:2008.

This standard is ratified with the order of Estonian Centre for Standardisation dated 19.05.2008 and is endorsed with the notification published in the official bulletin of the Estonian national standardisation organisation.

Date of Availability of the European standard text 19.03.2008.

The standard is available from Estonian standardisation organisation.

ICS 07.100.20

Võtmesõnad:

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Kui Teil on küsimusi standardite autorikaitse kohta, palun võtke ühendust Eesti Standardikeskusega:
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English Version

Water quality - Detection and enumeration of Legionella - Part 2:
Direct membrane filtration method for waters with low bacterial
counts (ISO 11731-2:2004)

Qualité de l'eau - Recherche et dénombrement des
Legionella - Partie 2: Méthode par filtration directe sur
membrane pour les eaux à faible teneur en bactéries (ISO
11731-2:2004)

Wasserbeschaffenheit - Nachweis und Zählung von
Legionellen - Teil 2: Direktes Membranfiltrationsverfahren
mit niedriger Bakterienzahl (ISO 11731-2:2004)

This European Standard was approved by CEN on 24 February 2008.

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

Management Centre: rue de Stassart, 36 B-1050 Brussels

Foreword

The text of ISO 11731-2:2004 has been prepared by Technical Committee ISO/TC 147 "Water quality" of the International Organization for Standardization (ISO) and has been taken over as EN ISO 11731-2:2008 by 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 September 2008, and conflicting national standards shall be withdrawn at the latest by September 2008.

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

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Endorsement notice

The text of ISO 11731-2:2004 has been approved by CEN as a EN ISO 11731-2:2008 without any modification.

Annex ZA (informative)

A-deviations

A-deviation: National deviation due to regulations, the alteration of which is for the time being outside the competence of the CEN/CENELEC national member.

This European Standard does not fall under any Directive of the EC.

In the relevant CEN/CENELEC countries these A-deviations are valid instead of the provisions of the European Standard until they have been removed.

Deviation	
Country	National Regulation
Netherlands	<p>Waterleidingbesluit, 7 June 1960. Amended at 28 December 2004.</p> <p>Besluit hygiëne en veiligheid badinrichtingen en zwemgelegenheden, 6 October 1984. Amended at 28 December 2004.</p>
The Dutch regulation for detection of <i>Legionella</i> requires the use of the Dutch Standard NEN 6265 as reference method. Criterion of number of colony forming units in water samples is based on the results obtained with this Standard Method.	<p>Waterleidingbesluit, Article 17p,</p> <p>Besluit hygiëne en veiligheid badinrichtingen en zwemgelegenheden, Appendix IV. Analysevoorschriften</p>

Contents		Page
Foreword		iv
1	Scope	1
2	Normative references	1
3	Terms and definitions	1
4	Safety	2
5	Principle	2
6	Culture media and reagents	2
7	Apparatus	6
8	Sampling	7
9	Procedure	7
10	Expression of results	9
11	Test report	9

Water quality — Detection and enumeration of *Legionella* —

Part 2:

Direct membrane filtration method for waters with low bacterial counts

WARNING — Persons using this part of ISO 11731 should be familiar with normal laboratory practice. This part of ISO 11731 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 part of ISO 11731 describes a monitoring method for the isolation and enumeration of *Legionella* organisms in water intended for human use (e.g. hot and cold water, water used for washing), for human consumption and for treated bathing waters (e.g. swimming pools). It is especially suitable for waters expected to contain low numbers of *Legionella*. As the growth of *Legionella* may be inhibited by overgrowth of other bacterial colonies on the membrane, the method is only suitable for waters containing low bacterial counts.

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 3696:1987, *Water for analytical laboratory use — Specification and test methods*

ISO 8199:—¹⁾, *Water quality — General guidance on the enumeration of micro-organisms by culture*

ISO 11731:1998, *Water quality — Detection and enumeration of Legionella*

3 Terms and definitions

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

3.1

Legionella

genus of Gram-negative bacteria normally capable of growth in no less than 2 days on buffered charcoal yeast extract agar containing L-cysteine and iron(III), and forming colonies, often white, purple to blue or lime green in colour

NOTE Some species fluoresce under long wavelength UV light. The colonies have a ground-glass appearance when viewed with a low power stereomicroscope. Growth does not occur in the absence of L-cysteine with the exception of *L. oakridgensis* and *L. spiritensis*. *L. oakridgensis* and *L. spiritensis* require L-cysteine and iron for primary isolation but can grow weakly in the absence of added L-cysteine thereafter.

1) To be published. (Revision of ISO 8199:1988)