

**Chemical disinfectants and antiseptics - Quantitative suspension test for the evaluation of bactericidal activity against Legionella of chemical disinfectants for aqueous systems - Test method and requirements (phase 2, step 1)**

## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN 13623:2010 sisaldab Euroopa standardi EN 13623:2010 ingliskeelset teksti.

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English Version

**Chemical disinfectants and antiseptics - Quantitative suspension test for the evaluation of bactericidal activity against Legionella of chemical disinfectants for aqueous systems - Test method and requirements (phase 2, step 1)**

Antiseptiques et désinfectants chimiques - Essai quantitatif de suspension pour l'évaluation de l'activité bactéricide contre des légionelles des désinfectants chimiques pour les systèmes aqueux - Méthode d'essai et prescriptions (phase 2, étape 1)

Chemische Desinfektionsmittel und Antiseptika - Quantitativer Suspensionsversuch zur Bestimmung der bakteriziden Wirkung gegen Legionella von chemischen Desinfektionsmitteln für wasserführende Systeme - Prüfverfahren und Anforderungen (Phase 2, Stufe 1)

This European Standard was approved by CEN on 15 April 2010.

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# Contents

Page

Foreword.....	3
Introduction .....	4
1 Scope .....	5
2 Normative references .....	5
3 Terms and definitions .....	5
4 Requirements .....	5
5 Test methods.....	6
5.1 Principle.....	6
5.2 Materials and reagents .....	6
5.2.1 Test organism .....	6
5.2.2 Culture media and reagents .....	6
5.3 Apparatus and glassware .....	10
5.3.1 General.....	10
5.3.2 Usual microbiological laboratory equipment .....	10
5.4 Preparation of test organism suspensions and test solutions.....	11
5.4.1 Test organism suspension (test and validation suspension).....	11
5.4.2 Product test solution .....	13
5.5 Procedure for assessing the bactericidal activity of the product .....	13
5.5.1 General.....	13
5.5.2 Dilution-neutralization method.....	15
5.5.3 Membrane filtration method .....	17
5.6 Experimental data and calculations.....	18
5.6.1 Explanation of terms and abbreviations .....	18
5.6.2 Calculation.....	19
5.7 Verification of methodology .....	22
5.7.1 General.....	22
5.7.2 Control of weighted mean counts.....	23
5.7.3 Basic limits .....	23
5.8 Expression of results and precision.....	23
5.8.1 Reduction .....	23
5.8.2 Control of active and non-active product test solution (5.4.2) .....	23
5.8.3 Bactericidal concentration.....	23
5.8.4 Precision, repetition .....	24
5.9 Interpretation of results – conclusion .....	24
5.9.1 General.....	24
5.9.2 Bactericidal activity for general purposes .....	24
5.9.3 Bactericidal activity for specific purposes .....	24
5.10 Test report .....	24
Annex A (informative) Determination of the bactericidal activity against <i>Legionella pneumophila</i> .....	26
Annex B (informative) Neutralizer.....	28
Annex C (informative) Graphical representation of test procedures .....	30
C.1 Dilution-neutralization method.....	30
C.2 Membrane filtration method .....	32
Bibliography .....	34

## Foreword

This document (EN 13623:2010) has been prepared by Technical Committee CEN/TC 216 “Chemical disinfectants and antiseptics”, the secretariat of which is held by AFNOR.

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 March 2011, and conflicting national standards shall be withdrawn at the latest by March 2011.

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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## Introduction

This European Standard specifies a suspension test for establishing whether a chemical disinfectant has a bactericidal activity against *Legionella pneumophila* in the fields described in the scope. This standard is specifically prepared for water treatment products, but it may also be possible to use it for other products.

Proliferation of *Legionella* only occurs in waters under certain conditions, and predominantly poses a risk when aerosolised. Many systems containing water do not require treatment. A decision to add chemical disinfectants to any water should be based on a risk assessment.

If the product complies with the requirements of this standard, it can be considered bactericidal against *Legionella pneumophila*, but it should not necessarily be inferred that the product is acceptable for a specific site of application without consideration of other relevant factors such as the pH, water, chemistry, temperature and degree of biological fouling at that site of application. It does not take into account the protective effect conveyed by biofilm on the organisms.

The conditions are intended to cover general purposes and to allow reference between laboratories and product types. Each concentration of the chemical disinfectant found by this test corresponds to defined experimental conditions. However, for some applications the recommendations of use of a product may differ and therefore additional test conditions need to be used.

## 1 Scope

This European Standard specifies a test method and the minimum requirements for bactericidal activity of chemical disinfectant products intended to be used for treatment in aqueous systems against *Legionella pneumophila* that form a homogeneous, physically stable preparation when diluted with buffered ferrous hard water or hard water. Whenever *Legionella pneumophila* poses a risk to human health, this method is suitable for water used in cooling towers and water for general purposes, like spas, pools, showers and other uses. The method is not suitable for electro-chemical disinfection.

The European Standard applies to products used to treat water in order to kill *Legionella pneumophila*.

NOTE 1 The method described is intended to determine the activity of commercial formulations or active substances under the conditions in which they are used.

NOTE 2 This method corresponds to a phase 2 step 1 test .

NOTE 3 This method does not take into account the fact that *Legionella pneumophila* is often found in cells of amoebae and/or biofilms and that thereby a product's activity against the bacteria may be reduced.

EN 14885 specifies in detail the relationship of the various tests to one another and to "use recommendation".

## 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.

EN 14885, *Chemical disinfectants and antiseptics — Application of European Standards for chemical disinfectants and antiseptics*

## 3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 14885 and the following apply.

### 3.1

#### **cooling water**

water used to remove heat from a process or environment

### 3.2

#### **water for general purposes**

water used in premises other than water used as cooling water

## 4 Requirements

The product shall demonstrate at least a four decimal log (lg) reduction, when diluted with buffered ferrous hard water (5.2.2.10) or hard water (5.2.2.7), and tested in accordance with Clause 5 under the obligatory test conditions (one selected test organism, at either 20 °C or 30 °C) within 60 min for rapid acting products or 15 h for slower acting products.

The bactericidal activity shall be evaluated using the following test organism: *Legionella pneumophila*.

Where indicated, additional specific bactericidal activity shall be determined applying other contact times and test organisms (in accordance with 5.2.1 and 5.5.1.1) in order to take into account intended specific use conditions.