

NAMS 13623:2024

First Edition

EN 13623:2020

NAMIBIAN STANDARD

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)

This Namibian standard is the identical adoption of EN 13623:2020 and is adopted with the permission of the European Committee for Standardization

Published by the Namibian Standards Institution (NSI)
Established by section 2 of the Standards Act, 2005 (Act No 18 of 2005)
37 Feld Street
P.O. Box 26364 Windhoek, Namibia
Tel +264-61386400, Fax +264-61-386454
Website: www.nsi.com.na
© NSI



Licensed by NSI to NSI for internal use only
DOWNLOADED:24/06/2026
Single-user licence only, copying and networking prohibited.

NAMS 13623:2024

First Edition

EN 13623:2020

National foreword

This Namibian Standard (NAMS) is identical to EN 13623:2020, and was approved for adoptions by the Namibian Standards Institution CEO.

Namibian standards are developed based on NSI Standards development procedures in accordance with the rules given in the International Organisation for Standardisation/ International Electrotechnical Commission (ISO/IEC) Directives 1, ISO/IEC Guide 21-1 Adoption of international standards as regional or national standards and WTO – TBT World Trade Organisation code of Good Practice (which is published as Annex 3 in the TBT Agreement)

The NSI Technical Committee responsible for this standard is NSI TC 14, Chemicals.

This NAMS 13623:2024 EN 13623:2020 was published in May 2024.

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 19 August 2019.

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 CEN-CENELEC Management Centre 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 CEN-CENELEC Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.



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

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

Contents

Page

European foreword.....	3
Introduction	4
1 Scope	5
2 Normative references	5
3 Terms and definitions	5
4 Requirements	6
5 Test methods	6
5.1 Principle	6
5.2 Materials and reagents.....	7
5.2.1 Test organism.....	7
5.2.2 Culture media and reagents	7
5.3 Apparatus and glassware	11
5.3.1 General.....	11
5.3.2 Usual microbiological laboratory equipment.....	11
5.4 Preparation of test organism suspensions and test solutions.....	12
5.4.1 Test organism suspension (test suspension <i>N</i> and validation suspension <i>N_v</i>).....	12
5.4.2 Product test solution.....	14
5.5 Procedure for assessing the bactericidal activity of the product.....	14
5.5.1 General.....	14
5.5.2 Dilution-neutralization method	16
5.5.3 Membrane filtration method	18
5.6 Experimental data and calculations.....	19
5.6.1 Explanation of terms and abbreviations	19
5.6.2 Calculation.....	20
5.7 Verification of methodology.....	25
5.7.1 General.....	25
5.7.2 Control of weighted mean counts.....	25
5.7.3 Basic limits	25
5.8 Expression of results and precision	25
5.8.1 Reduction.....	25
5.8.2 Control of active and non-active product test solution (5.4.2).....	26
5.8.3 Bactericidal concentration	26
5.8.4 Precision, repetition	26
5.9 Interpretation of results – conclusion	26
5.9.1 General.....	26
5.9.2 Bactericidal activity for general purposes.....	26
5.9.3 Bactericidal activity for specific purposes.....	26
5.10 Test report.....	26
Annex A (informative) Referenced strains in national collections	28
Annex B (informative) Determination of the bactericidal activity against <i>Legionella pneumophila</i>.....	29
Annex C (informative) Neutralizer.....	32
Annex D (informative) Graphical representation of test procedures.....	34
Bibliography.....	38

Licensed by NSI to NSI for internal use only

DOWNLOADED:24/06/2026

Single-user licence only, copying and networking prohibited.

European foreword

This document (EN 13623:2020) 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 April 2021, and conflicting national standards shall be withdrawn at the latest by April 2021.

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

This document supersedes EN 13623:2010.

This document was revised to adapt it to the latest state of CEN/TC 216, to correct errors and ambiguities. The following is a list of significant changes since the last edition:

- the temperature range for incubation of plates from $(36 \pm 1) ^\circ\text{C}$ or $(37 \pm 1) ^\circ\text{C}$ was changed to the range $(36 \pm 2) ^\circ\text{C}$ as given in the new ISO 11731 standard for *Legionella* culture;
- a new paragraph was added to the scope to state that the method is not suitable for continuously dosed products;
- new Annex A "Referenced strains in national collections" was added;
- the calculation errors in Table A.2 (now Table B.2) were corrected.

The changes mentioned above have no impact on the test results obtained with reference to the previous version. Those results are still valid.

According to the CEN-CENELEC Internal Regulations, the national standards organisations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

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 an appropriate assessment according to national regulations.

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.