

SVENSK STANDARD

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**Kemiska desinfektionsmedel och antiseptiska medel –
Kvantitativt suspensionsprov för utvärdering av den
antibakteriella effekten av kemiska desinfektionsmedel och
antiseptiska medel för användning inom veterinärområdet –
Provningsmetod och krav (fast 2, steg 1)**

**Chemical disinfectants and antiseptics – Quantitative
suspension test for the evaluation of bactericidal activity of
chemical disinfectants and antiseptics used in the veterinary
area – Test method and requirements (phase 2, step 1)**



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Denna standard ersätter SS-EN 1656:2009, utgåva 2 och SS-EN 1656:2009/AC:2010, utgåva 1.

The European Standard EN 1656:2019 has the status of a Swedish Standard. This document contains the official version of EN 1656:2019.

This standard supersedes the SS-EN 1656:2009, edition 2 and SS-EN 1656:2009/AC:2010, edition 1.

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Information about the content of the standard is available from the Swedish Standards Institute (SIS), telephone +46 8 555 520 00. Standards may be ordered from SIS, who can also provide general information about Swedish and foreign standards.

Denna standard är framtagen av kommittén för Rengöring, desinfektion och sterilisering, SIS/TK 349.

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EUROPEAN STANDARD

EN 1656

NORME EUROPÉENNE

EUROPÄISCHE NORM

September 2019

ICS 71.100.35

Supersedes EN 1656:2009

English Version

Chemical disinfectants and antiseptics - Quantitative suspension test for the evaluation of bactericidal activity of chemical disinfectants and antiseptics used in the veterinary area - Test method and requirements (phase 2, step 1)

Antiseptiques et désinfectants chimiques - Essai quantitatif de suspension pour l'évaluation de l'activité bactéricide des antiseptiques et des désinfectants chimiques utilisés dans le domaine vétérinaire - Méthode d'essai et exigences (phase 2, étape 1)

Chemische Desinfektionsmittel und Antiseptika - Quantitativer Suspensionsversuch zur Bestimmung der bakteriziden Wirkung chemischer Desinfektionsmittel und Antiseptika für den Veterinärbereich - Prüfverfahren und Anforderungen (Phase 2, Stufe 1)

This European Standard was approved by CEN on 28 July 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.

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

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

SS-EN 1656:2019 (E)

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European foreword

This document (EN 1656:2019) 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 2020, and conflicting national standards shall be withdrawn at the latest by March 2020.

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 European Standard supersedes EN 1656:2009 and was revised to harmonize the structure and wording with other quantitative suspension tests of CEN/TC 216 (existing or in preparation).

Results obtained using the previous version of this standard 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 document specifies a suspension test for establishing whether a chemical disinfectant or antiseptic has a bactericidal activity in the fields described in the scope.

This laboratory test takes into account practical conditions of application of the product, including contact time, temperature, test organisms and interfering substances, i.e. conditions which may influence its action in practical situations.

The conditions are intended to cover general purposes and to allow reference between laboratories and product types. Each utilization concentration of the chemical disinfectant or antiseptic 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.

SS-EN 1656:2019 (E)

1 Scope

This document specifies a test method and the minimum requirements for bactericidal activity of chemical disinfectant and antiseptic products that form a homogeneous, physically stable preparation when diluted with hard water or - in the case of ready-to-use products - with water. Products can only be tested at a concentration of 80 % or less, as some dilution is always produced by adding the test organisms and interfering substance.

The method described is intended to determine the activity of commercial formulations or active substances under the conditions in which they are used. This document applies to products that are used for equipment disinfection by immersion, surface disinfection by wiping, spraying, flooding or other means and teat disinfection in the veterinary area – e.g. in the breeding, husbandry, production, veterinary care facilities, transport and disposal of all animals except when in the food chain following death and entry into processing industry. This document also applies to products used for teat disinfection in these veterinary areas.

This method is not applicable to evaluate the activity of hand hygiene products. For these products reference is made to EN 14885, which specifies in detail the relationship of the various tests to one another and to “use recommendations”.

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

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 12353, *Chemical disinfectants and antiseptics — Preservation of test organisms used for the determination of bactericidal (including Legionella), mycobactericidal, sporicidal, fungicidal and virucidal (including bacteriophages) activity*

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 apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- IEC Electropedia: available at <http://www.electropedia.org/>
- ISO Online browsing platform: available at <http://www.iso.org/obp>

4 Requirements

The product shall demonstrate at least a 5 decimal log (lg) reduction when diluted with hard water (5.2.2.7) or – in the case of ready-to-use products – with water (5.2.2.2) and tested in accordance with Table 1 and Clause 5 under simulated low level soiling (3 g/l bovine albumin) or high level soiling (10 g/l yeast extract and 10 g/l bovine albumin) or 10 g/l skimmed milk for post-milking teat disinfectants or 3 g/l bovine albumin for pre-milking teat disinfectants or in additional test conditions.

Table 1 — Test conditions

| Test conditions | Bactericidal activity on surfaces | Bactericidal activity for teat disinfectants |
|---|--|--|
| Minimum spectrum of test organisms | <i>Enterococcus hirae</i> <i>Proteus hauseri</i> ¹⁾ <i>Pseudomonas aeruginosa</i> <i>Staphylococcus aureus</i> | <i>Escherichia coli</i> <i>Staphylococcus aureus</i> <i>Streptococcus uberis</i> |
| additional | any relevant test organism | any relevant test organism |
| Test temperature | at intervals of 5 °C | |
| minimum | 5 °C ± 1 °C | 20 °C ± 1 °C |
| maximum | 40 °C ± 1 °C | 30 °C ± 1 °C |
| Contact time | at intervals of 30 s from 30 s to 5 min and at intervals of 5 min from 5 min to 120 min | |
| minimum | 1 min ± 5 s | 1 min ± 5 s for post-milking teat disinfectants 30 s ± 5 s for pre-milking teat disinfectants |
| maximum | 120 min ± 10 s | 30 min ± 10 s for post-milking teat disinfectants 3 min ± 10 s for pre-milking teat disinfectants |
| Interfering substance | | Interfering substance |
| low level soiling high level soiling | 3,0 g/l bovine albumin 10 g/l yeast extract plus 10 g/l bovine albumin | Post milking: 10,0 g/l of milk powder Pre-milking: 3,0 g/l bovine albumin |
| additional | any relevant substance | any relevant substance |

¹⁾ Was known as *Proteus vulgaris*.