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## Sterilization of health care products -Biological indicators - Part 5: Biological indicators for low-temperature steam and formaldehyde sterilization processes

Sterilization of health care products - Biological indicators - Part 5: Biological indicators for lowtemperature steam and formaldehyde sterilization processes



#### EESTI STANDARDI EESSÕNA

#### NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN ISO	This Estonian standard EVS-EN ISO
11138-5:2006 sisaldab Euroopa standardi	11138-5:2006 consists of the English text
EN ISO 11138-5:2006 ingliskeelset teksti.	of the European standard EN ISO 11138-
C	5:2006.
Käesolev dokument on jõustatud	This document is endorsed on 30.08.2006
30.08.2006 ja selle kohta on avaldatud	with the notification being published in the
teade Eesti standardiorganisatsiooni	official publication of the Estonian national
ametlikus väljaandes.	standardisation organisation.
Standard on kättesaadav Eesti	The standard is available from Estonian
standardiorganisatsioonist.	standardisation organisation.
Käsitlusala:	Scope:
This part of ISO 11138 provides specific	This part of ISO 11138 provides specific
requirements for test organisms,	requirements for test organisms,
suspensions, inoculated carriers,	suspensions, inoculated carriers,
biological indicators and test methods	biological indicators and test methods
intended for use in assessing the	intended for use in assessing the
performance of sterilization processes	performance of sterilization processes
employing low-temperature steam and	employing low-temperature steam and
formaldehyde as the sterilizing agent.	formaldehyde as the sterilizing agent.
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## EUROPEAN STANDARD NORME EUROPÉENNE **EUROPÄISCHE NORM**

## EN ISO 11138-5

July 2006

ICS 11.080.01

Supersedes EN 866-5:1999

**English Version** 

#### Sterilization of health care products - Biological indicators - Part 5: Biological indicators for low-temperature steam and formaldehyde sterilization processes (ISO 11138-5:2006)

Stérilisation des produits de santé - Indicateurs biologiques - Partie 5: Indicateurs biologiques pour la stérilisation à la vapeur d'eau et au formaldéhyde à basse température (ISO 11138-5:2006)

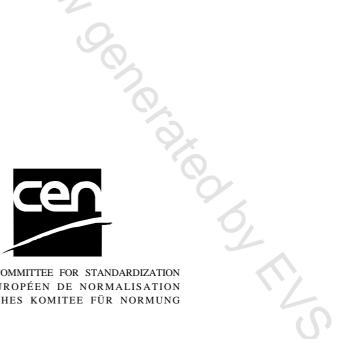
Sterilisation von Produkten für die Gesundheitsfürsorge -Biologische Indikatoren - Teil 5: Biologische Indikatoren für Sterilisationsverfahren mit Niedertemperatur-Dampf und Formaldehyd (ISO 11138-5:2006)

This European Standard was approved by CEN on 7 June 2006.

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 Central Secretariat 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 Central Secretariat has the same status as the official versions.

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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

This document (EN ISO 11138-5:2006) has been prepared by Technical Committee ISO/TC 198 "Sterilization of health care products" in collaboration with Technical Committee CEN/TC 102 "Sterilizers for medical purposes", 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 January 2007, and conflicting national standards shall be withdrawn at the latest by January 2007.

This document supersedes EN 866-5:1999.

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

#### **Endorsement notice**

The text of ISO 11138-5:2006 has been approved by CEN as EN ISO 11138-5:2006 without any modifications.

## **INTERNATIONAL STANDARD**

## ISO 11138-5

First edition 2006-07-01

# Sterilization of health care products — **Biological indicators** —

Part 5:

**Biological indicators for low-temperature** steam and formaldehyde sterilization processes

Stérilisation des produits de santé — Indicateurs biologiques —

Partie 5: Indicateurs biologiques pour la stérilisation à la vapeur d'eau et au formaldéhyde à basse température 

Reference number ISO 11138-5:2006(E)

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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 11138-5 was prepared by Technical Committee ISO/TC 198, Sterilization of health care products.

ISO 11138 consists of the following parts, under the general title *Sterilization of health care products* — *Biological indicators*:

- Part 1: General requirements
- Part 2: Biological indicators for ethylene oxide sterilization processes
- Part 3: Biological indicators for moist heat sterilization processes
- Part 4: Biological indicators for dry heat sterilization processes
- Part 5: Biological indicators for low-temperature steam and formaldehyde sterilization processes

#### Introduction

ISO 11138-1 specifies production, labelling, test methods and performance requirements for the manufacture of biological indicators including inoculated carriers and suspensions intended for use in validation and monitoring sterilization processes. This part of 11138 gives specific requirements for those biological indicators intended for use in low-temperature steam and formaldehyde sterilization processes.

The intent of providing requirements in the ISO 11138 series of International Standards is to provide general requirements and requirements for test methods. This series of International Standards represents the current "state-of-the-art" according to the experts representing manufacturers, users and regulatory authorities involved in developing the standard. The intent is not to promote the use of biological indicators where such use is not advised, but to provide common requirements for the production of those biological indicators that are known to be in use today.

Standards exist providing general requirements for the validation and control of low-temperature steam and formaldehyde sterilization (see ISO 14937)<sup>1</sup>).

Some countries or regions may have published standards covering requirements for sterilization or biological NOTE indicators.

Advice on selection, use and interpretation of results when using biological indicators can be found in ISO 14161.

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<sup>1)</sup> Although ISO/TC 198 has agreed to develop a standard applicable to dry heat processes, it was not available for reference at the time this document was prepared.

### Sterilization of health care products — Biological indicators —

#### Part 5: Biological indicators for low-temperature steam and formaldehyde sterilization processes

#### 1 Scope

This part of ISO 11138 provides specific requirements for test organisms, suspensions, inoculated carriers, biological indicators and test methods intended for use in assessing the performance of sterilization processes employing low-temperature steam and formaldehyde as the sterilizing agent.

NOTE 1 Requirements for validation and control of low-temperature steam and formaldehyde sterilization processes are provided by ISO 14937.

NOTE 2 Requirements for work place safety may be provided by national or regional regulations.

#### 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 11138-1:2006, Sterilization of health care products — Biological indicators — Part 1: General requirements

#### 3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 11138-1 and the following apply.

#### 3.1

#### low-temperature steam and formaldehyde sterilization

process incorporating forced air removal, which allows exposure of wrapped goods to steam at subatmospheric pressure, and thus at temperatures < 100  $^{\circ}$ C, with the admission of formaldehyde gas, keeping the sterilizing agent in a steady state throughout the hold time

#### 4 General requirements

The requirements of ISO 11138-1 apply.

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