- Non

## Cleanrooms and associated controlled environments - Biocontamination control - Part 2: Evaluation and interpretation of biocontamination data

Cleanrooms and associated controlled environments - Biocontamination control - Part 2: Evaluation and interpretation of biocontamination data



## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN ISO 14698-2:2004 sisaldab Euroopa standardi EN ISO 14698-2:2003 + AC:2006 ingliskeelset teksti.	This Estonian standard EVS-EN ISO 14698-2:2004 consists of the English text of the European standard EN ISO 14698- 2:2003 + AC:2006.
Käesolev dokument on jõustatud 23.11.2004 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.	This document is endorsed on 23.11.2004 with the notification being published in the official publication of the Estonian national standardisation organisation.
Standard on kättesaadav Eesti standardiorganisatsioonist.	The standard is available from Estonian standardisation organisation.

Käsitlusala:	Scope:
This part of ISO 14698 gives guidance on	This part of ISO 14698 gives guidance on
methods for the evaluation of	methods for the evaluation of
microbiological data and the estimation of	microbiological data and the estimation of
results obtained from sampling for viable	results obtained from sampling for viable
particles in risk zones for	particles in risk zones for
biocontamination control. It should be	biocontamination control. It should be
used, where appropriate, in conjunction	used, where appropriate, in conjunction
with ISO 14698-1.	with ISO 14698-1.
ICS 13.040.35 Võtmesõnad:	

## EUROPEAN STANDARD NORME EUROPÉENNE **EUROPÄISCHE NORM**

## EN ISO 14698-2

September 2003

ICS 13.040.35

English version

## Cleanrooms and associated controlled environments -Biocontamination control - Part 2: Evaluation and interpretation of biocontamination data (ISO 14698-2:2003)

Salles propres et environnements maîtrisés apparentés -Maîtrise de la biocontamination - Partie 2: Evaluation et interprétation des données de biocontamination (ISO 14698-2:2003)

Reinräume und zugehörige Reinraumbereiche -Biokontaminationskontrolle - Teil 2: Auswertung und Interpretation von Biokontaminationsdaten (ISO 14698-2:2003)

This European Standard was approved by CEN on 10 July 2003.

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 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 Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Slovakia, Spain, Sweden, Switzerland and United Kingdom.



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

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

#### **CORRECTED 2003-11-05**

## Foreword

This document (EN ISO 14698-2:2003) has been prepared by Technical Committee ISO/TC 209 "Cleanrooms and associated controlled environments" in collaboration with Technical Committee CEN/TC 243 "Cleanroom technology", the secretariat of which is held by BSI.

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 2004, and conflicting national standards shall be withdrawn at the latest by March 2004.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Slovakia, Spain, Sweden, Switzerland and the United Kingdom.

### **Endorsement notice**

The text of ISO 14698-2:2003 has been approved by CEN as EN ISO 14698-2:2003 without any modifications.

NOTE Normative references to International Standards are listed in Annex ZA (normative).

idaro.

## Annex ZA

## (normative)

## Normative references to international publications with their relevant European publications

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies (including amendments).

NOTE Where an International Publication has been modified by common modifications, indicated by (mod.), the relevant EN/HD applies.

Publication	<u>Year</u>	<u>Title</u>	<u>EN</u>	Year
ISO 14698-1	2003	Cleanrooms and associated controlled environments - Biocontamination control - Part 1: General principles and methods	EN ISO 14698-1	2003

## **INTERNATIONAL STANDARD**

## ISO 14698-2

First edition 2003-09-15

# Anis occume **Cleanrooms and associated controlled** environments — Biocontamination control —

## Part 2: Evaluation and interpretation of biocontamination data

2

Salles propres et environnements maîtrisés apparentés — Maîtrise de la biocontamination -

Partie 2: Évaluation et interprétation des données de biocontamination

Reference number ISO 14698-2:2003(E)

#### **PDF** disclaimer

This PDF file may contain embedded typefaces. In accordance with Adobe's licensing policy, this file may be printed or viewed but shall not be edited unless the typefaces which are embedded are licensed to and installed on the computer performing the editing. In downloading this file, parties accept therein the responsibility of not infringing Adobe's licensing policy. The ISO Central Secretariat accepts no liability in this area.

Adobe is a trademark of Adobe Systems Incorporated.

<text> Details of the software products used to create this PDF file can be found in the General Info relative to the file; the PDF-creation parameters were optimized for printing. Every care has been taken to ensure that the file is suitable for use by ISO member bodies. In the unlikely event that a problem relating to it is found, please inform the Central Secretariat at the address given below.

© ISO 2003

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office Case postale 56 • CH-1211 Geneva 20 Tel. + 41 22 749 01 11 Fax + 41 22 749 09 47 E-mail copyright@iso.ch Web www.iso.ch Printed in Switzerland

## 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 part of ISO 14698 may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

International Standard ISO 14698-2 was prepared by Technical Committee ISO/TC 209, *Cleanrooms and associated controlled environments*.

ISO 14698 consists of the following parts, under the general title *Cleanrooms and associated controlled environments* — *Biocontamination control*:

- Part 1: General principles and methods
- Part 2: Evaluation and interpretation of biocontamination data

## Introduction

ese, jven ir. This part of ISO 14698 presents a framework for the evaluation of biocontamination data collected following the principles and methods given in ISO 14698-1. It may also be applied to biocontamination data collected by other systems.

## Cleanrooms and associated controlled environments — Biocontamination control —

## Part 2: **Evaluation and interpretation of biocontamination data**

### 1 Scope

This part of ISO 14698 gives guidance on methods for the evaluation of microbiological data and the estimation of results obtained from sampling for viable particles in risk zones for biocontamination control. It should be used, where appropriate, in conjunction with ISO 14698-1.

### 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 14698-1:2003, Cleanrooms and associated controlled environments — Biocontamination control — Part 1: General principles and methods

## 3 Terms and definitions

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

#### 3.1

#### action level

microbiological level set by the user in the context of controlled environments, which, when exceeded, requires immediate intervention, including investigation of cause, and corrective action

#### 3.2

#### alert level

microbiological level set by the user for controlled environments, giving early warning of a potential drift from normal conditions

NOTE When alert levels are exceeded, this should result in increased attention to the process.

#### 3.3

#### audit trail

chain of related documents, or entries within records, that allows related information to be traced

#### 3.4

#### biocontamination

contamination of materials, devices, individuals, surfaces, liquids, gases or air with viable particles