
**Microbiology of the food chain —
Horizontal method for the
enumeration of microorganisms —**

**Part 1:
Colony count at 30 °C by the pour plate
technique**

*Microbiologie de la chaîne alimentaire — Méthode horizontale pour
le dénombrement des micro-organismes —*

*Partie 1: Comptage des colonies à 30 °C par la technique
d'ensemencement en profondeur*

get full document from standards.iteh.ai



Sample Document

get full document from standards.iteh.ai



COPYRIGHT PROTECTED DOCUMENT

© ISO 2013

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested 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.org
Web www.iso.org

Published in Switzerland

Contents

	Page
Foreword	iv
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 Principle	2
5 Culture media and diluents	2
5.1 General	2
5.2 Diluents	2
5.3 Agar medium: plate count agar (PCA)	2
5.4 Overlay medium (if necessary; see 9.2.7)	3
6 Apparatus	4
7 Sampling	4
8 Preparation of test sample	4
9 Procedure	4
9.1 Test portion, initial suspension and dilutions	4
9.2 Inoculation and incubation	4
9.3 Counting of colonies	5
10 Expression of results	5
10.1 Method of calculation	5
10.2 Precision	5
10.3 Interpretation of test results	6
11 Test report	7
Annex A (informative) Use of the critical difference for the interpretation of results	8
Bibliography	9

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.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2, www.iso.org/directives.

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. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received, www.iso.org/patents.

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

The committee responsible for this document is ISO/TC 34, *Food products*, Subcommittee SC 9, *Microbiology*.

This first edition, together with ISO 4833-2, cancels and replaces ISO 4833:2003.

ISO 4833 consists of the following parts, under the general title *Microbiology of the food chain — Horizontal method for the enumeration of microorganisms*:

- *Part 1: Colony count at 30 °C by the pour plate technique*
- *Part 2: Colony count at 30 °C by the surface plating technique*

Microbiology of the food chain — Horizontal method for the enumeration of microorganisms —

Part 1: Colony count at 30 °C by the pour plate technique

1 Scope

This part of ISO 4833 specifies a horizontal method for enumeration of microorganisms that are able to grow and form colonies in a solid medium after aerobic incubation at 30 °C. The method is applicable to:

- a) products intended for human consumption and for animal feed;
- b) environmental samples in the area of food and feed production and handling.

This part of ISO 4833 is applicable to:

- 1) products that require a reliable count when a low limit of detection is specified (below 10^2 /g or 10^2 /ml for liquid samples or below 10^3 /g for solid samples);
- 2) products expected to contain spreading colonies that obscure colonies of other organisms, e.g. milk and milk products likely to contain spreading *Bacillus* spp.

The applicability of this part of ISO 4833 to the examination of certain fermented food and animal feeds is limited and other media or incubation conditions can be more appropriate. However, this method can be applied to such products even though it is possible that the predominant microorganisms in those products are not detected effectively.

For some matrices, the method specified in this part of ISO 4833 can give different results to those obtained using the method specified in ISO 4833-2.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 6887 (all parts), *Microbiology of food and animal feeding stuffs — Preparation of test samples, initial suspension and decimal dilutions for microbiological examination*

ISO 7218, *Microbiology of food and animal feeding stuffs — General requirements and guidance for microbiological examinations*

ISO 11133, *Microbiology of food, animal feed and water — Preparation, production, storage and performance testing of culture media*

3 Terms and definitions

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