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

**Part 2:  
Colony count at 30 °C by the surface  
plating technique**

**AMENDMENT 1: Clarification of scope**

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

*Partie 2: Comptage des colonies à 30 °C par la technique  
d'ensemencement en surface*

*AMENDEMENT 1: Clarification du domaine d'application*



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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 (see [www.iso.org/directives](http://www.iso.org/directives)).

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This document was prepared by Technical Committee TC 34, *Food products*, Subcommittee SC 9, *Microbiology*, in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 463, *Microbiology of the food chain*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

A list of all parts in the ISO 4833 series can be found on the ISO website.

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

## Part 2:

## Colony count at 30 °C by the surface plating technique

### AMENDMENT 1: Clarification of scope

#### Clause 1, Scope

Replace the text with the following:

This document specifies a horizontal method for enumeration of microorganisms that are able to grow and form colonies on the surface of a solid medium after aerobic incubation at 30 °C.

The method described in this document is applicable to:

- products intended for human consumption;
- products intended for feeding animals (including pets);
- environmental samples in the area of food and feed production and handling;
- all samples from the primary production stage.

This technique is suitable for, but not limited to, the enumeration of microorganisms in test samples with a minimum of 10 colonies counted on a plate. This corresponds to a level of contamination that is expected to be higher than 100 cfu/ml for liquid samples or higher than 1 000 cfu/g for solid samples.

This technique is especially suitable for:

- products containing heat-sensitive organisms that are likely to form a significant proportion of the total flora (e.g. psychrotrophic organisms in chilled and frozen foods, dried foods, other foods that can contain heat-sensitive organisms);
- products containing obligately aerobic bacteria that are likely to form a significant proportion of the total flora (e.g. *Pseudomonas* species.);
- products that contain small particles that can prove difficult to distinguish from colonies in a pour plate;
- products whose intense colour prevents the recognition of colonies in a pour plate;
- products for which a distinction between different types of colony is desired as part of the assessment of food quality.

In addition to the manual spread plating technique, this document also describes the use of a spiral plater, an automated method of performing surface colony counts (see Annex A).

This horizontal method was originally developed for the examination of samples belonging to the food chain. Because of the large variety of products in the food chain, it is possible that this horizontal method is not appropriate in every detail for all products. Nevertheless, it is expected that the required modifications are minimized so that they do not result in a significant deviation from this horizontal method.

Based on the information available at the time of publication of this document, the suitability of this method for the examination of certain fermented food and animal feeds is considered to be limited and other media or incubation conditions can be more appropriate. However, this method can still be applied to such products even though it is possible that the predominant microorganisms in those products are not detected effectively.

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