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Microbiology of the food chain — Horizontal methods for surface sampling

Microbiologie de la chaîne alimentaire — Méthodes horizontales pour les prélèvements de surface

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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.

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).

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For an explanation on the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see the following URL: www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 34, *Food products*, Subcommittee SC 9, *Microbiology*.

This second edition cancels and replaces the first edition (ISO 18593:2004), which has been technically revised. The main changes are as follows:

— recommendations on sampling procedure have been added, including information on sampling location, area and sampling time;

— examples of neutralizers have been added as Annex A.

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Introduction

It can be important to determine the presence of, or the number of microbes on, the surfaces of utensils, work surfaces and other equipment in the food chain environment in order to estimate the level of contamination in the food chain environment.

This document describes horizontal methods for surface sampling.

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Microbiology of the food chain — Horizontal methods for surface sampling

1 Scope

This document specifies horizontal methods for sampling techniques using contact plates, stick swabs, sponges and cloths on surfaces in the food chain environment in order to detect and enumerate culturable microorganisms such as pathogenic or non-pathogenic bacteria or yeasts and moulds.

NOTE The term "environment" means any item in contact with the food product or likely to represent a contamination or recontamination source; for example, material, premises or operators.

This document does not apply to the validation of cleaning and disinfection procedures.

This document does not apply to sampling techniques for primary production samples, which are covered by ISO 13307. Sampling techniques for carcasses are covered by ISO 17604. Sampling techniques for analysis of noroviruses and hepatitis A viruses are covered by ISO 15216-1.

This document does not give advice on sampling frequency, the number of sampling points, or the need to rotate sampling points, as these are chosen on a case-by-case basis.

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.

ISO 6887-1, *Microbiology of the food chain — Preparation of test samples, initial suspension and decimal dilutions for microbiological examination — Part 1: General rules for the preparation of the initial suspension and decimal dilutions*

ISO 6887-5, *Microbiology of food and animal feeding stuffs — Preparation of test samples, initial suspension and decimal dilutions for microbiological examination — Part 5: Specific rules for the preparation of milk and milk products*

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*

ISO 16140-2, *Microbiology of the food chain — Method validation — Part 2: Protocol for the validation of alternative (proprietary) methods against a reference method*

3 Terms and definitions

No terms and definitions are listed in this document.

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

— ISO Online browsing platform: available at https://www.iso.org/obp

— IEC Electropedia: available at http://www.electropedia.org/

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