

Second edition  
2017-03

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# 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

*Microbiologie de la chaîne alimentaire — Préparation des  
échantillons, de la suspension mère et des dilutions décimales en vue  
de l'examen microbiologique —*

*Partie 1: Règles générales pour la préparation de la suspension mère  
et des dilutions décimales*



Reference number  
ISO 6887-1:2017(E)

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## Contents

	Page
<b>Foreword</b> .....	<b>iv</b>
<b>Introduction</b> .....	<b>v</b>
<b>1 Scope</b> .....	<b>1</b>
<b>2 Normative references</b> .....	<b>1</b>
<b>3 Terms and definitions</b> .....	<b>1</b>
<b>4 Principle</b> .....	<b>3</b>
<b>5 Diluents</b> .....	<b>3</b>
5.1 Basic materials.....	3
5.2 Diluents for general use.....	3
5.2.1 Peptone salt solution.....	3
5.2.2 Buffered peptone water.....	4
5.2.3 Double-strength buffered peptone water.....	4
5.3 Diluents for special purposes.....	4
5.4 Distribution and sterilization of the diluent.....	4
5.5 Performance testing for diluents.....	5
<b>6 Apparatus</b> .....	<b>5</b>
<b>7 Sampling</b> .....	<b>6</b>
<b>8 Preparation of samples</b> .....	<b>6</b>
8.1 General.....	6
8.2 Frozen products.....	7
8.2.1 General.....	7
8.2.2 Small samples defrosted before testing.....	7
8.2.3 Large pieces or blocks sampled while frozen.....	7
8.3 Hard and dry products.....	8
8.4 Dehydrated and other low-moisture products.....	8
8.5 Liquid and non-viscous products.....	8
8.6 Acidic products.....	8
8.7 High-fat (over 20 %) foods.....	9
8.8 Multi-component products.....	9
8.9 Packaged products.....	9
8.10 Surface samples (swabs and other devices).....	10
<b>9 Specific procedures</b> .....	<b>10</b>
9.1 Test portion and initial suspension (primary dilution).....	10
9.2 Duration of the procedure.....	11
9.3 Pooling and compositing procedures for qualitative tests.....	11
<b>10 Further dilutions</b> .....	<b>11</b>
10.1 Decimal dilution series.....	11
10.2 Other dilution series.....	12
<b>Annex A (informative) Illustrations of pooling and compositing procedures</b> .....	<b>13</b>
<b>Annex B (informative) Method for sampling frozen test pieces or blocks</b> .....	<b>18</b>
<b>Annex C (informative) Data showing reliability of test results according to size of test portions</b> .....	<b>20</b>
<b>Annex D (informative) Verification protocol for pooling samples for qualitative tests</b> .....	<b>23</b>
<b>Bibliography</b> .....	<b>26</b>

## 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](http://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 (see [www.iso.org/patents](http://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.

For an explanation on 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](http://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 6887-1:1999), which has been technically revised.

A list of parts in the ISO 6887 series can be found on the ISO website.

This is a preview of "ISO 6887-1:2017". [Click here to purchase the full version from the ANSI store.](#)

## Introduction

Because of the large variety of food and animal feed products, this horizontal method might not be appropriate in every detail for certain products. In this case, different methods which are specific to these products can be used if absolutely necessary for justified technical reasons.

When this document is next reviewed, account will be taken of all information then available regarding the extent to which this horizontal method has been followed and the reasons for deviations from this method in the case of particular products.

The harmonization of test methods cannot be immediate and for certain groups of products, International Standards and/or national standards may already exist that do not comply with this horizontal method. It is hoped that when such standards are reviewed, they will be changed to comply with this document so that eventually, the only remaining departures from this horizontal method will be those necessary for well-established technical reasons.

This document defines the general rules for the preparation of samples, initial suspensions and subsequent dilutions for microbiological examination. The remaining parts of ISO 6887 give specific rules for the preparation of samples and initial suspensions, each covering the variety of food and feed products and environmental samples to which ISO 6887 applies.

For a number of products, it is necessary to take special precautions, especially when preparing the initial suspension, because of the physical state of the product (such as dry products, highly viscous products) or the presence of inhibitory substances (such as spices, high salt content) or the acidity, etc. These are covered in general terms in this document.

Any special diluents or practices required for particular products or microorganisms in specific standard methods take priority over the general rules listed in the ISO 6887 series. These can include the following:

- specific rehydration procedures for foods of low water activity to minimize osmotic shock;
- the use of adequate temperatures to aid suspension of cocoa, gelatine, milk powder, etc.;
- resuscitation procedures for the improved recovery of stressed microorganisms resulting from food processing and storage;
- homogenization procedures and duration specific to certain products (e.g. cereals) and/or to certain determinations (e.g. yeasts and moulds).