

ISBN 978-0-626-30100-2

**SANS 6887-1:1999**

Edition 1 and nat. amdt 1

**ISO 6887-1:1999**

Edition 1

Any reference to SABS ISO 6887-1 is deemed  
to be a reference to this standard  
(Government Notice No. 1373 of 8 November 2002)

## **SOUTH AFRICAN NATIONAL STANDARD**

### **Microbiology of food and animal feeding stuffs — 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**

This national standard is the identical implementation of ISO 6887-1:1999, and is adopted with the permission of the International Organization for Standardization.

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**Table of changes**

<b>Change No.</b>	<b>Date</b>	<b>Scope</b>
Nat. amdt 1	2007	Amended to change the designation from SABS to SANS, with no technical changes.

**National foreword**

This South African standard was approved by National Committee SABS/TC 1026, *Microbiological evaluation of foods, feeds and beverages*, in accordance with procedures of the SABS Standards Division, in compliance with annex 3 of the WTO/TBT agreement.

This part of SANS 6887 was published in March 2007. This SANS edition is technically identical to the first SABS edition (SABS ISO 6887-1:1999), with the addition of national amendment 1.

**Reaffirmed and reprinted in March 2014  
This document will be reviewed every five years  
and be reaffirmed, amended, revised or withdrawn.**

# INTERNATIONAL STANDARD

**ISO  
6887-1**

First edition  
1999-02-15

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## **Microbiology of food and animal feeding stuffs — 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 des aliments — 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*



## ISO 6887-1:1999(E)

### 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 3.

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.

International Standard ISO 6887-1 was prepared by Technical Committee ISO/TC 34, *Agricultural food products*, Subcommittee SC 9, *Microbiology*.

This first edition of ISO 6887-1 cancels and replaces ISO 6887:1983.

ISO 6887 consists of the following parts, under the general title *Microbiology of food and animal feeding stuffs — 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 for microbiological examination*
- *Part 2: Specific rules for the preparation of test samples and initial suspension*

Part 2 will probably be divided into several parts, for specific products such as meat, milk, fish and other products.

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## **Introduction**

Because of the large variety of food and feed products, this horizontal method may not be appropriate in every detail for certain products. In this case, different methods, which are specific to these products may be used if absolutely necessary for justified technical reasons. Nevertheless, every attempt should be made to apply this horizontal method as far as possible.

When this part of ISO 6887 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 group 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 part of ISO 6887 so that eventually the only remaining departures from this horizontal method will be those necessary for well-established technical reasons.

This part of ISO 6887 defines the general rules for the preparation of the initial suspension and of decimal dilutions for microbiological examination. Part 2 of ISO 6887 (under preparation) will specify specific rules for the preparation of the test sample and of the initial suspension, taking into account the variety of food and feed products 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 a dry product, a highly viscous product), or the presence of inhibitory substances (such as spices, salted fishes), or the acidity, etc.

It is recommended that, whilst waiting for the publication of part 2, any special diluents or practices specified for particular products in an appropriate specific standard be used in the preparation of the initial suspension. This may include:

- adjustment of the pH of a food suspension to neutrality;
- the use of buffered peptone water, and no other diluent, for products with high inhibitory effect, or products containing microorganisms that have been stressed (e.g. acidic pH);
- 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);
- the use of surface-active agents for high-fat foods.