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**Microbiology of food and animal feeding  
stuffs — Preparation of test samples,  
initial suspension and decimal dilutions  
for microbiological examination —**

Part 4:  
**Specific rules for the preparation of  
products other than milk and milk  
products, meat and meat products, and  
fish and fishery products**

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

*Partie 4: Règles spécifiques pour la préparation de produits autres que  
les produits laitiers, les produits carnés et les produits de la pêche*



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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.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. 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.

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.

ISO 6887-4 was prepared by Technical Committee ISO/TC 34, *Food products*, Subcommittee SC 9, *Microbiology*.

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*
- *Part 2: Specific rules for the preparation of meat and meat products*
- *Part 3: Specific rules for the preparation of fish and fishery products*
- *Part 4: Specific rules for the preparation of products other than milk and milk products, meat and meat products, fish and fishery products*

# Microbiology of food and animal feeding stuffs — Preparation of test samples, initial suspension and decimal dilutions for microbiological examination —

## Part 4: Specific rules for the preparation of products other than milk and milk products, meat and meat products, and fish and fishery products

**WARNING** — The use of this standard may involve hazardous materials, operations and equipment. It is the responsibility of the user of this standard to establish appropriate safety and health practices and to determine the applicability of regulatory limitations prior the use.

### 1 Scope

This part of ISO 6887 specifies rules for the preparation of samples and decimal dilutions for the microbiological examination of food products other than those covered in other parts of ISO 6887. ISO 6887-1 defines the general rules for the preparation of the initial suspension and decimal dilutions for microbiological examination.

This part of ISO 6887 only describes methods of preparation that are applicable to several microorganisms simultaneously. It excludes the preparations that only apply to the detection and/or enumeration of a single microorganism where the methods of preparation are described in the relevant International Standard concerning that microorganism.

This part of ISO 6887 is applicable to the following products:

- general case for acidic products (see 8.2);
- foods with a high fat content, excluding margarine and spreads (see 8.3);
- flours, whole cereal grains, cereal by-products, animal feeds and cattle cake (see 9.1);
- very hard products, e.g. cassava (see 9.2);
- gelatine (see 9.3);
- margarine and spreads (see 9.4);
- dehydrated products and freeze-dried products (except dairy products and egg products) (see 9.5);
- egg and egg products (see 9.6);
- fermented products (products containing live microorganisms) (see 9.7);
- pastries and cakes (9.8).

NOTE Milk and milk products are dealt with in ISO 8261.

## 2 Normative references

The following referenced documents are indispensable for the application 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 6887-1:1999, *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*

ISO 6887-2:2003, *Microbiology of food and animal feeding stuffs — Preparation of test samples, initial suspension and decimal dilutions for microbiological examination — Part 2: Specific rules for the preparation of meat and meat products*

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

## 3 Terms and definitions

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

### 3.1 laboratory sample

sample prepared for sending to the laboratory and intended for inspection or testing

[ISO 7002]

### 3.2 test portion

measured (volume or mass) representative sample taken from the laboratory sample for use in the preparation of the initial suspension

### 3.3 initial suspension (primary dilution)

suspension, solution or emulsion obtained after a weighed or measured quantity of the product under examination (or of a test sample prepared from the product) has been mixed with, normally, a nine-fold quantity of diluent, allowing large particles, if present, to settle

### 3.4 further decimal dilutions

suspensions or solutions obtained by mixing a measured volume of the initial suspension (3.3) with a nine-fold volume of diluent and by repeating this operation with further dilutions, until a decimal dilution series, suitable for the inoculation of culture media, is obtained

## 4 Principle

An initial suspension (3.3) is prepared to obtain as uniform a distribution as possible of the microorganisms contained in the test sample.

A pre-enrichment or enrichment suspension is prepared in the same way, using the medium recommended by the method of analysis concerned, except in special cases mentioned in each product section of this part of ISO 6887.

If necessary, decimal dilutions (3.4) are prepared in order to reduce the number of microorganisms per unit volume to allow, after incubation, observation of any growth (in the case of liquid media) or colonies (in the case of agar plates or agar tubes), as stated in each specific standard.