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**Microbiology of food and animal feeding  
stuffs — Horizontal method for the  
enumeration of coagulase-positive  
staphylococci (*Staphylococcus aureus*  
and other species) —**

**Part 2:**

Technique using rabbit plasma fibrinogen agar  
medium

*Microbiologie des aliments — Méthode horizontale pour le dénombrement  
des staphylocoques à coagulase positive (Staphylococcus aureus et autres  
espèces) —*

*Partie 2: Technique utilisant le milieu gélosé au plasma de lapin et au  
fibrinogène*



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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 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 6888-1 was prepared by Technical Committee ISO/TC 34, *Agricultural food products*, Subcommittee SC 9, *Microbiology*.

This first edition of ISO 6888-2, together with ISO 6888-1, cancels and replaces ISO 6888:1983, which has been technically revised.

ISO 6888 consists of the following parts, under the general title *Microbiology of food and animal feeding stuffs — Horizontal method for the enumeration of coagulase-positive staphylococci (Staphylococcus aureus and other species)*:

- Part 1: Technique using Baird-Parker agar medium
- Part 2: Technique using rabbit plasma fibrinogen agar medium

## 0 Introduction

**0.1** 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 6888 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 part of ISO 6888 so that eventually the only remaining departures from this horizontal method will be those necessary for well-established technical reasons.

**0.2** ISO 6888 describes two horizontal methods (part 1 and part 2) for the enumeration of coagulase-positive staphylococci among which enterotoxinogenic strains are encountered. It is mainly concerned with *Staphylococcus aureus*, but also with *S. intermedius* and certain strains of *S. hyicus*.

In the general case, use part 1 of ISO 6888. However, it is preferable to use the procedure described in part 2 only for foodstuffs (such as cheeses made from raw milk and certain raw meat products) likely to be contaminated by:

- staphylococci forming atypical colonies on a Baird-Parker agar medium;
- background flora which can obscure the colonies being sought.

**0.3** For the purposes of this part of ISO 6888, the characterization of staphylococci is based on a positive-coagulase reaction, but it is recognized that some strains of *Staphylococcus aureus* give weakly positive coagulase reactions. These latter strains may be confused with other bacteria but they may be distinguished from such other bacteria by the use of additional tests not included in this part of ISO 6888, such as the sensitivity to lysostaphin, the production of haemolysin, of thermostable nuclease and of acid from mannitol (see reference [1]).

# Microbiology of food and animal feeding stuffs — Horizontal method for the enumeration of coagulase-positive staphylococci (*Staphylococcus aureus* and other species) —

## Part 2:

Technique using rabbit plasma fibrinogen agar medium

### 1 Scope

This part of ISO 6888 describes a horizontal method for the enumeration of coagulase-positive staphylococci in products intended for human consumption or feeding of animals by counting of colonies obtained on a solid medium (rabbit plasma fibrinogen medium) after aerobic incubation at 35 °C or 37 °C (see reference [2]).

### 2 Normative references

The following normative documents contain provisions which, through reference in this text, constitute provisions of this part of ISO 6888. For dated references, subsequent amendments to, or revisions of, any of these publications do not apply. However, parties to agreements based on this part of ISO 6888 are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below. For undated references, the latest edition of the normative document referred to applies. Members of ISO and IEC maintain registers of currently valid International Standards.

ISO 6887-1, *Microbiology of food and animal feeding stuffs — Rules for the preparation of the test samples, of initial suspension and of decimal dilutions for microbiological examination — Part 1: General rules for the preparation of the initial suspension and of decimal dilutions.*

ISO 6888-1:1999, *Microbiology of food and animal feeding stuffs — Horizontal method for the enumeration of coagulase positive staphylococci (Staphylococcus aureus and other species) — Part 1: Technique using Baird-Parker agar medium.*

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

### 3 Terms and definitions

For the purposes of this part of ISO 6888, the following terms and definitions apply.

#### 3.1

##### **coagulase-positive staphylococci**

bacteria which form typical colonies in a rabbit plasma fibrinogen selective agar medium when the test is carried out according to the method specified in this part of ISO 6888

#### 3.2

##### **enumeration of the coagulase-positive staphylococci**

determination of the number of coagulase-positive staphylococci found per millilitre or per gram of sample when the test is carried out according to the method specified in this part of ISO 6888