

Food microbiology

Method 12.3: Microbiology of food and animal feeding stuffs—Horizontal method for the enumeration of coagulase-positive staphylococci (*Staphylococcus aureus* and other species)—Detection and MPN technique for low numbers

PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee FT-004, Food Microbiology to supersede AS 1766.2.4—1994, *Food microbiology, Method 2.4: Examination for specific organisms—Coagulase positive staphylococci*.

This Standard is identical with and reproduced from ISO 6888-3:2003, *Microbiology of food and animal feeding stuffs—Horizontal method for the enumeration of coagulase-positive staphylococci (Staphylococcus aureus and other species), Part 3: Detection and MPN technique for low numbers*.

This Standard was prepared by the Australian members of the Joint Standards Australia/Standards New Zealand Committee FT-004. After consultation with stakeholders in both countries, Standards Australia and Standards New Zealand decided to develop this Standard as an Australian Standard rather than an Australian/New Zealand Standard.

The objective of this Standard is to specify a horizontal method for the enumeration and detection of coagulase-positive staphylococci, using the most probable number (MPN) technique. It is applicable to—

- (a) products intended for human consumption and the feeding of animals; and
- (b) environmental samples in the area of food production and food handling.

As this Standard is reproduced from an International Standard, the following applies:

- (i) Its number appears on the cover and title page while the International Standard number appears only on the cover.
- (ii) In the source text, ‘this part of ISO 6888’ should read ‘this Australian Standard’.
- (iii) A full point substitutes for a comma when referring to a decimal marker.
- (iv) Substitute ‘mL’ for ‘ml’ wherever it appears.

References to International Standards should be replaced by references to equivalent Australian Standards as follows:

<i>Reference International Standard</i>	<i>Australian Standard</i>
ISO	AS
6887 Microbiology of food and animal feeding stuffs—Preparation of test samples, initial suspension and decimal dilutions for microbiological examination	5013 Food microbiology 5013.11.1 Method 11.1: Microbiology of food and animal feeding stuffs—Preparation of test samples, initial suspension and decimal dilutions for microbiological examination—General rules for the preparation of the initial suspension and decimal dilutions
6887-1 Part 1: General rules for the preparation of the initial suspension and decimal dilutions.	
6888 Microbiology of food and animal feeding stuffs—Horizontal method for the enumeration of coagulase-positive staphylococci (<i>Staphylococcus aureus</i> and other species)	5013.12.1 Method 12.1: Microbiology of food and animal feeding stuffs—Horizontal method for the enumeration of coagulase-positive staphylococci (<i>Staphylococcus aureus</i> and other species)—Technique using Baird-Parker agar medium
6888-1 Part 1: Technique using Baird-Parker agar medium	
6888-2 Part 2: Technique using rabbit plasma fibrinogen agar medium	5013.12.2 Method 12.2: Microbiology of food and animal feeding stuffs—Horizontal method for the enumeration of coagulase-positive staphylococci (<i>Staphylococcus aureus</i> and other species)—Technique using rabbit plasma fibrinogen agar medium
7218 Microbiology—General guidance for microbiological examinations	5013.14 Method 14: Microbiology of food and animal feeding stuffs—General rules for microbiological examinations
8261 Milk and milk products—General guidance for the preparation of test samples, initial suspensions and decimal dilutions for microbiological examination	5013.17 Method 17: Milk and milk products—General guidance for the preparation of test samples, initial suspensions and decimal dilutions for microbiological examination

With the exception of the above ISO documents, which have been adopted as Australian Standards, the ISO documents listed as normative references in Clause 2 have not been adopted as Australian Standards.

The laboratory should have a clearly defined quality control system to ensure that the apparatus, culture media, reagents and technique are suitable for the test. The use of positive controls is part of this system.

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 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.

1 Scope

This part of ISO 6888 specifies a horizontal method for the enumeration and detection of coagulase-positive staphylococci, using the most probable number (MPN) technique. It is applicable to

- products intended for human consumption and the feeding of animals, and
- environmental samples in the area of food production and food handling.

This method is recommended for products where staphylococci are expected to be stressed and in low numbers as, for example, in dried products. Coagulase-positive staphylococci will primarily be *Staphylococcus aureus* but *Staphylococcus intermedius* and some strains of *Staphylococcus hyicus* also produce coagulase.

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

ISO 8261, *Milk and milk products — General guidance for the preparation of test samples, initial suspensions and decimal dilutions for microbiological examination*

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 6888-2:1999, *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*

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

ISO/TS 11133-1, *Microbiology of food and animal feeding stuffs — Guidelines on preparation and production of culture media — Part 1: General guidelines on quality assurance for the preparation of culture media in the laboratory*