

Australian Standard®

Food microbiology

Method 24.1: Microbiology of food and animal feeding stuffs—Horizontal method for the detection and enumeration of *Listeria monocytogenes*—Detection method (ISO 11290-1:1996, MOD)

AS 5013.24.1—2009

PREFACE

This Standard was prepared by the Standards Australia Committee FT-024 Food Products, and Constituted Subcommittee FT-024-01, Food Microbiology, to supersede in part AS/NZS 1766.2.15—1998, *Food microbiology, Method 2.15: Examination of specific organisms—Listeria monocytogenes in dairy products* and AS/NZS 1766.2.16.1—1998, *Food microbiology, Method 2.16.1: Examination for specific organisms—Food and animal feeding stuffs—Horizontal method for the detection and enumeration of Listeria monocytogenes—Detection method*.

This Standard is an adoption with national modifications and reproduced from ISO 11290-1:1996, *Microbiology of food and animal feeding stuffs—Horizontal method for the detection and enumeration of Listeria monocytogenes, Part 1: Detection method* including Amendment 1:2004, which is added at the end of the ISO text. ISO 11290-1:1996 was confirmed on 20 June 2005.

Additional requirements for Australian conditions are listed in Appendix ZZ.

The objective of this revision is to incorporate the ISO Amendment 1:2004, which modifies the isolation media and the bacteriology test, and adds precision data.

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

- Its number appears on the cover and title page while the International Standard number appears only on the cover.
- In the source text 'this part of ISO 11290' should read 'this Australian Standard'.
- A full point substitutes for a comma when referring to a decimal marker.
- Substitute 'mL' for 'ml' whenever it appears.

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

<i>Reference to International Standard</i>		<i>Australian Standard</i>	
ISO		AS	
6887	Microbiology—General guidance for the preparation of dilutions for microbiological examination	5013	Food microbiology
		5013.11.1	Method 11.1: Microbiology of food and animal feeding stuff—Preparation of test samples initial suspension and decimal dilutions for microbiological examination—General rules for the preparation of the initial suspension and decimal dilutions
7218	Microbiology—General guidance for microbiological examination	5013.14	Method 14: Microbiology of food and animal feeding stuffs—General rules for microbiological examinations

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.

The terms ‘normative’ and ‘informative’ have been used in this Standard to define the application of the annex or appendix to which they apply. A ‘normative’ annex or appendix is an integral part of a Standard, whereas an ‘informative’ annex or appendix is only for information.

CONTENTS

1	Scope	1
2	Normative references	1
3	Definitions	1
4	Principle	2
5	Culture media and reagents	2
6	Apparatus and glassware	
7	Sampling	3
8	Preparation of test sample	3
9	Procedure	3
10	Expression of results	7
11	Test report	7
Annexes		
A	Diagram of procedure	8
B	Composition and preparation of culture media and reagents	9
C	Henry illumination test	16

INTRODUCTION

Because of the large variety of food and feed products, this horizontal method may not be appropriate in every detail for certain products for which it may be necessary to use different or specific methods. Nevertheless, in all cases, every attempt should be made to apply this horizontal method as far as possible and that deviations from this will only be made if absolutely necessary for justified technical reasons.

When this part of ISO 11290 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 it 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 11290 so that eventually the only remaining deviations from this horizontal method will be those necessary for well-established technical reasons.

WARNING — In order to safeguard the health of laboratory personnel, it is strongly recommended that tests for detecting *Listeria monocytogenes* are undertaken in properly equipped laboratories, under the control of a skilled microbiologist, and that great care is taken in the disposal of all incubated materials. In particular, it is strongly recommended that pregnant personnel do not manipulate cultures of *L. monocytogenes*.

1 Scope

This part of ISO 11290 specifies a horizontal method for the detection of *Listeria monocytogenes*.

Subject to the limitations discussed in the introduction, this part of ISO 11290 is applicable to products intended for human consumption or animal feeding.

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this part of ISO 11290. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this part of ISO 11290 are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 6887:1983, *Microbiology — General guidance for the preparation of dilutions for microbiological examination*.

ISO 7218:1996, *Microbiology of food and animal feeding stuffs — General rules for microbiological examinations*.

3 Definitions

For the purposes of this part of ISO 11290, the following definitions apply.

3.1 *Listeria monocytogenes*: Microorganisms which form typical colonies on solid selective media and which display the morphological, physiological and biochemical characteristics described when tests are carried out in accordance with this part of ISO 11290.

3.2 detection of *Listeria monocytogenes*: Determination of the presence or absence of these microorganisms, in a given mass or volume of product, when tests are carried out in accordance with this part of ISO 11290.