



## **Food microbiology—Meat and meat products**

### **Part 21: Enumeration of presumptive *Pseudomonas* spp.**

AS 5013.21:2017

This Australian Standard® was prepared by Committee FT-035, Food Microbiology. It was approved on behalf of the Council of Standards Australia on 1 September 2017.

This Standard was published on 19 September 2017.

The following are represented on Committee FT-035:

- ACT Health
- Australian Institute of Food Science and Technology
- Australian Society for Microbiology
- CSIRO
- Dairy Industry Association of Australia
- Department of Agriculture and Water Resources (Australian Government)
- Department of Health, WA
- Department of Health and Human Services, Tas.
- Meat and Livestock Australia
- National Association of Testing Authorities Australia
- Queensland Health Forensic and Scientific Services
- University of Melbourne
- Department of Health and Human Services, Vic.

This Standard was issued in draft form for comment as DR AS 5013.21:2017.

### **Keeping Standards up-to-date**

Ensure you have the latest versions of our publications and keep up-to-date about Amendments, Rulings, Withdrawals, and new projects by visiting:

[www.standards.org.au](http://www.standards.org.au)

[www.saiglobal.com](http://www.saiglobal.com) (sales and distribution)

ISBN 978 1 76035 899 0

Australian Standard®

## **Food microbiology—Meat and meat products**

### **Part 21: Enumeration of presumptive *Pseudomonas* spp.**

First published as AS 5013.21-2004.  
Second edition 2017.

#### **COPYRIGHT**

Standards Australia Ltd 2017

All rights are reserved. No part of this work may be reproduced or copied in any form or by any means, electronic or mechanical, including photocopying, without the written permission of the publisher, unless otherwise permitted under the Copyright Act 1968 (Cth).

Published by SAI Global Limited under licence from Standards Australia Limited, GPO Box 476, Sydney, NSW 2001, Australia.

## Preface

This Standard was prepared by the Standards Australia Committee FT-035, Food Microbiology, to supersede AS 5013.21—2004 *Food microbiology, Method 21: Meat and meat products— Enumeration of Pseudomonas spp.*

The objective of this Standard is to specify a method for the enumeration of presumptive *Pseudomonas* spp. present in meat and meat products, including poultry.

This Standard is identical with, and has been reproduced from, ISO 13720:2010, *Meat and meat products — Enumeration of presumptive Pseudomonas spp.*

As this document has been reproduced from an International Standard, the following applies:

- (a) In the source text 'this International Standard' should read 'this Australian Standard'.
- (b) A full point substitutes for a comma when referring to a decimal marker.

Australian or Australian/New Zealand Standards that are identical adoptions of international normative references may be used interchangeably. Refer to the online catalogue for information on specific.

The terms 'normative' and 'informative' are used in Standards to define the application of the appendices or annexes to which they apply. A 'normative' appendix or annex is an integral part of a Standard, whereas an 'informative' appendix or annex is only for information and guidance.

# Contents

<b>Preface</b> .....	<b>ii</b>
<b>Foreword</b> .....	<b>iv</b>
<b>1 Scope</b> .....	<b>1</b>
<b>2 Normative references</b> .....	<b>1</b>
<b>3 Terms and definitions</b> .....	<b>1</b>
<b>4 Principle</b> .....	<b>1</b>
<b>5 Diluent, culture medium and reagent</b> .....	<b>2</b>
5.1 General .....	2
5.2 Diluent .....	2
5.3 Cephalothin-sodium fusidate-cetrimide agar (see Reference <a href="#">[3]</a> ) .....	2
5.3.1 Basic medium .....	2
5.3.2 Inhibitor solutions .....	2
5.3.3 Complete medium .....	3
5.3.4 Preparation of CFC agar plates .....	3
5.3.5 Performance testing .....	3
5.4 Reagent for the detection of oxidase .....	4
5.4.1 Composition .....	4
5.4.2 Preparation .....	4
<b>6 Apparatus</b> .....	<b>4</b>
<b>7 Sampling</b> .....	<b>5</b>
<b>8 Preparation of test sample</b> .....	<b>5</b>
<b>9 Procedure</b> .....	<b>5</b>
9.1 Test portion, initial suspension and dilutions .....	5
9.2 Inoculation and incubation .....	5
9.3 Counting and selection of colonies .....	5
9.4 Confirmation .....	6
9.4.1 Oxidase reaction .....	6
9.4.2 Interpretation .....	6
<b>10 Expression of results</b> .....	<b>6</b>
<b>11 Test report</b> .....	<b>6</b>
<b>Bibliography</b> .....	<b>7</b>

## 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 13720 was prepared by Technical Committee ISO/TC 34, *Food products*, Subcommittee SC 9, *Microbiology*.

This second edition cancels and replaces the first edition (ISO 13720:1995), which has been technically revised.

# Australian Standard®

## Food microbiology—Meat and meat products

### Part 21: Enumeration of presumptive *Pseudomonas* spp.

#### 1 Scope

This International Standard specifies a method for the enumeration of presumptive *Pseudomonas* spp. present in meat and meat products, including poultry.

#### 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, *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, *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 requirements and guidance 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*

ISO/TS 11133-2, *Microbiology of food and animal feeding stuffs — Guidelines on preparation and production of culture media — Part 2: Practical guidelines on performance testing of culture media*

#### 3 Terms and definitions

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

##### 3.1

##### **presumptive *Pseudomonas* spp.**

bacteria which at 25 °C form colonies in cephalothin-sodium fusidate-cetrimide (CFC) agar and which show a positive oxidase reaction when tested according to the method described in this International Standard

#### 4 Principle

An initial suspension and decimal dilutions are prepared from the test sample.

The solid selective medium, CFC agar, is inoculated with a specified quantity of the initial suspension of the product.

Other plates are prepared under the same conditions, using decimal dilutions of the initial suspension.

The plates are incubated at 25 °C for 44 h ± 4 h.

Colonies of presumptive *Pseudomonas* spp. are confirmed by the oxidase test (positive).