



**Waters—Examination for *Legionella*
spp. including *Legionella pneumophila***



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- ACT Health
- Australian Society for Microbiology
- Australian Water Association
- National Association of Testing Authorities
- National Measurement Institute
- NSW Forensic and Analytical Science Service
- PathWest Laboratory Medicine, WA
- Plastics and Chemicals Industries Association
- Queensland Health
- Queensland University of Technology
- University of Melbourne
- VicWater
- Water NSW
- Water Research Australia
- Water Services Association of Australia

Additional Interests:

- Commercial Testing Laboratories
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This Standard was issued in draft form for comment as DR AS 3896:2016.

Standards Australia wishes to acknowledge the participation of the expert individuals that contributed to the development of this Standard through their representation on the Committee and through the public comment period.

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Australian Standard[®]

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PREFACE

This Standard was prepared by the Standards Australia Committee FT-020, Water Microbiology, to supersede AS/NZS 3896:2008.

The objectives of this revision are—

- (a) to review the selective media and the volume of the inoculum used in this method;
- (b) to incorporate culture media and reagents and to remove reference to AS 4276.2;
- (c) to update reference cultures; and
- (d) to update the references.

Committee FT-020 did not recommend the adoption of ISO 11731:1998, *Water quality—Detection and enumeration of Legionella*, and ISO 11731-2:2004, *Water quality—Detection and enumeration of Legionella, Part 2: Direct membrane filtration method for waters with low bacterial counts*, either alone or combined as Australian Standards because these two ISO Standards do not align with current health policy and legislative requirements.

This Standard is suitable for the testing of treated and untreated water samples. If low levels of *Legionella* spp. are anticipated in a water sample, AS 5132, *Waters—Examination for Legionella spp. including Legionella pneumophila—Using concentration*, may be more appropriate.

The term ‘informative’ has been used in this Standard to define the application of the appendix to which it applies. An ‘informative’ appendix is only for information and guidance.

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FOREWORD

This Standard stems from a need, expressed by health authorities and other stakeholders, for a standard method for the enumeration of legionellae in waters to facilitate the monitoring of the effectiveness of measures adopted for preventing the proliferation of legionellae in waters.

Legionella pneumophila serogroup 1 causes ‘Legionnaire’s’ disease. However, some other *Legionella* are potentially pathogenic and may cause legionellosis. This revised Standard is designed to estimate the number of *L. pneumophila* and a range of other *Legionella spp.*, the presence of which may indicate poorly managed water systems.

The method is suitable for use in a laboratory equipped to carry out routine microbiological work.

Some *Legionella* can be identified with commercially available systems, while others may require specialized testing not normally available in routine testing laboratories.

Strain characterization of *Legionella* isolates required as part of outbreak investigations is not within the scope of this Standard. This is normally carried out by public health microbiology laboratories. Other laboratories that isolate *Legionella* strains related to outbreaks should refer any *Legionella* isolates to a laboratory with *Legionella* strain characterization capability.

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