

Australian/New Zealand Standard™

AS/NZS 4276.18

Water microbiology

Method 18: *Aeromonas* by membrane filtration including selected speciation

PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee FT-020, Water Microbiology, as part of a series of methods for the microbiological examination of waters for domestic and industrial use.

The objective of preparing this Standard is to establish a standard method to enumerate and identify *Aeromonas* spp. by the membrane filtration method.

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.

METHOD

1 SCOPE

This Standard sets out a method, using membrane filtration, for enumerating *Aeromonas* spp., *A. hydrophila*, *A. veronii* biotype *veronii*, *A. veronii* biotype *sobria*, *A. jandeei*, *A. caviae* and *A. schubertii* in water in general.

NOTES:

- 1 Membrane filtration is suitable for enumerating micro-organisms only when the turbidity of the water is low, i.e. approximately 30 – 50 Nephelometric Turbidity Units.
- 2 Bacterial counts derived from membranes with less than 20 or more than 80 are approximate.
- 3 A flow diagram of the procedure is shown in Appendix A.

2 REFERENCED DOCUMENTS

The following documents are referred to in this Standard:

AS	
4276	Water microbiology
4276.1	Part 1: General information and procedures
4276.2	Part 2: Culture media, diluents and reagents

3 PRINCIPLE

The initial isolation is performed by filtration through a membrane filter and placing the membrane filter on the specified culture medium and incubating under anaerobic conditions, after which the agar plates are transferred to aerobic conditions and then incubated. Typical and atypical morphologies are counted and recorded and representative isolates are selected for confirmation, using specific media.