

# Australian/New Zealand Standard™

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AS/NZS 4276.17.2

## Water microbiology

### Method 17.2: Spores of sulfite-reducing anaerobes (clostridia) including *Clostridium perfringens*—Estimation of most probable number (MPN) using the multiple tube dilution technique

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#### 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 spores of sulfite reducing anaerobes (clostridia) are widespread in the environment. They are present in human and animal faecal matter, in waste water and in soil. Unlike *Escherichia coli* and other coliform bacteria, the spores survive in water for long periods as they are more resistant than vegetative forms to the action of chemical and physical factors, and may be used as indicators of water quality.

*Clostridium perfringens* is an important member of this group and is associated with faecal contamination. If found at a time when other faecal indicator organisms are no longer detectable, it can indicate remote or intermittent pollution.

The Committee considered ISO 6461, *Water quality—Detection and enumeration of the spores of sulfite-reducing anaerobes (Clostridia)*, Part 1: *Method by enrichment in a liquid medium* and Part 2: *Method by membrane filtration* for adoption. As these two parts cover Clostridia in general, and as it is important for the method to cover *Clostridium perfringens*, the ISO Standards were not adopted as Australian/New Zealand Standards. Also the ISO Standards do not cover confirmation steps necessary for a test method. This method is derived from ISO 6461 but differs from it in that it contains an additional procedure and media for confirmation testing for *C.perfringens*. The confirmation procedure is derived from the referenced sources.

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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