



BSI Standards Publication

Water quality — Enumeration of *Legionella*

National foreword

This British Standard is the UK implementation of EN ISO 11731:2017. It is identical to ISO 11731:2017. It supersedes BS EN ISO 11731-2:2008 and BS 6068-4.12:1998 (dual numbered as ISO 11731:1998), which are withdrawn.

BSI, as a member of CEN, is obliged to publish EN ISO 11731:2017 as a British Standard. However, attention is drawn to the fact that during the development of this European Standard, the UK committee voted against its approval as a European Standard.

The standard has many potential variations and interpretations, not only between the method options specified but also within each specified method. This will lead to differences in approach being taken by different laboratories, which are all theoretically valid interpretations of this standard.

The criteria for the selection of the method variants are based on prior knowledge of the sample characteristics or are based on the sample matrix or type. This assumes that prior knowledge of the sample type is available, which may not always be the case for samples received by laboratories from third parties. In addition, this assumes that samples within each of the water type categories have a similar constituency or that the constituency of individual samples may not change between sampling events (for example in periodic routine sampling).

The standard brings together the procedures described in ISO 11731:1998 and EN ISO 11731:2008. There are also additional requirements for some method variations within the standard that were not previously required, such as additional media requirements. Instructions on the choice of approach are described in Annex J and are summarised in Figure J.1. This shows 10 method variations which consist of 14 potential procedures and three media types, with the selection of method being based on sample matrix and constituency.

In respect to sampling and transport of samples for *Legionella* analysis, the UK committee believes that ISO 11731:1998 and EN ISO 11731:2008 are currently more appropriate. The action level in UK guidance is 100 cfu/l. To detect this level reliably requires that the portion inoculated onto the selective isolation medium would be equivalent to at least 30 ml of the original water sample.

Additionally, the user should be aware that the acid treatment step (for the membrane filtration with washing procedure) is now a 1 in 10 dilution which may affect the theoretical limits of detection of the method. This may therefore not match the action levels stated in national guidelines. This standard also does not definitively specify an incubation time but gives a range of 7 to 10 days. A note has been added to subclause 8.4.6 to identify that natural samples may require the full 10 days.

The UK participation in its preparation was entrusted to Technical Committee EH/3/4, Microbiological methods.

A list of organizations represented on this committee can be obtained on request to its secretary.

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

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Supersedes EN ISO 11731-2:2008

English Version

Water quality - Enumeration of Legionella (ISO 11731:2017)

Qualité de l'eau - Dénombrement des Legionella (ISO 11731:2017)

Wasserbeschaffenheit - Zählung von Legionellen (ISO 11731:2017)

This European Standard was approved by CEN on 12 February 2017.

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This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

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