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Water quality — Enumeration of *Legionella*

Qualité de l'eau — Dénombrement des Legionella



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Contents

	Page
Foreword	v
Introduction	vi
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 Principle	2
4.1 General.....	2
4.2 Examination.....	2
4.3 Confirmation.....	2
5 Apparatus and glassware	2
6 Culture media and reagents	3
7 Sampling	4
8 Procedure	4
8.1 Samples.....	4
8.2 Concentration of water samples.....	5
8.2.1 General.....	5
8.2.2 Membrane filtration and direct placing of the membrane filter on culture media.....	5
8.2.3 Membrane filtration followed by a washing procedure.....	5
8.3 Sample pre-treatment.....	6
8.3.1 Heat treatment.....	6
8.3.2 Acid treatment.....	6
8.4 Culture.....	6
8.4.1 General.....	6
8.4.2 Samples with a high concentration of <i>Legionella</i> species and a low concentration of interfering microorganisms.....	6
8.4.3 Samples with a low concentration of <i>Legionella</i> species and a low concentration of interfering microorganisms.....	6
8.4.4 Samples with a high concentration of interfering microorganisms.....	7
8.4.5 Samples with an extremely high concentration of interfering microorganisms.....	7
8.4.6 Incubation.....	7
8.4.7 Examination of the plates.....	7
8.5 Confirmation of presumptive <i>Legionella</i> colonies on culture media: BCYE agar and BCYE-cys agar.....	8
9 Expression of results	8
10 Test report	9
11 Quality assurance	10
11.1 General.....	10
11.2 Performance testing of <i>Legionella</i> culture media.....	10
11.3 Preparing working culture and test suspension for performance testing.....	10
Annex A (informative) <i>Legionella</i> species	12
Annex B (normative) Culture media	14
Annex C (normative) Diluents	20
Annex D (normative) Acid solution	21
Annex E (informative) Scraping or rubbing the bacteria from membrane filters	22
Annex F (informative) Centrifugation technique	23

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Annex G (informative) Indirect immunofluorescent antibody assay for the identification of <i>Legionella</i> species	24
Annex H (informative) Performance data	27
Annex I (informative) Pre-treatment of water related matrices	31
Annex J (normative) Decision matrix	32
Bibliography	38

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Foreword

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This document was prepared by Technical Committee ISO/TC 147, *Water quality*, Subcommittee SC 4, *Microbiological methods*.

This second edition of ISO 11731 cancels and replaces ISO 11731:1998 and ISO 11731-2:2004, which have been technically revised.

Introduction

After the first recognized outbreak of Legionnaires' disease in 1976, the isolated bacterium was named *Legionella pneumophila*. Legionellae are widely found in natural and artificial aquatic environments, soils, composts and can cause legionellosis. Legionellae can grow intracellularly in protozoa like *Acanthamoeba castellanii*, *Hartmannella* species or *Naegleria* species. At least 61 different *Legionella* species have been described. In 26 of these species, some strains infecting humans have been reported. *Legionella pneumophila* can be subtyped into at least 15 different serogroups; nine other species also can be subtyped into at least two separate serogroups. Monitoring for legionellae is important for public health reasons to identify environmental sources which can pose a risk of legionellosis, such as evaporative cooling towers, hot- and cold-water distribution systems in buildings and associated equipment such as spa pools, dental units, air conditioning units, etc. Monitoring is also important for validation of control measures and ongoing verification that controls remain effective.