ᲡᲐᲥᲐᲠᲗᲕᲔᲚᲝᲡ ᲡᲢᲐᲜᲦᲐᲠᲢᲘ

წყლის ხარისხი - ნაწლავური ჩხირის და ჩხირის მსგავსი ბაქტერიის გამოვლენა. ნაწილი 2: ყველაზე შესაძლო რიცხვის გამოთვლის მეთოდი

საქართველოს სტანდარტების და მეტროლოგიის ეროვნული სააგენტო თბილისი

ᲡᲐᲘᲜᲤᲝᲠᲛᲐᲪᲘᲝ ᲛᲝᲜᲐᲪᲔᲛᲔᲑᲘ

- 1 **შემუშავებულია** საქართველოს სტანდარტების და მეტროლოგიის ეროვნული სააგენტოს სტანდარტების დეპარტამენტის მიერ
- 2 დამტკიცებულია და შემოღებულია სამოქმედოდ საქართველოს სტანდარტების და მეტროლოგიის ეროვნული სააგენტოს 2013 წლის 21 მარტის $\mathbb{N}^{\mathbb{R}}$ 20 განკარგულებით
- 3 მიღებულია გარეკანის მეთოდით სტანდარტიზაციის საერთაშორისო ორგანიზაციის სტანდარტი ისო 9308-2:2012 "წყლის ხარისხი ნაწლავური ჩხირის და ჩხირის მსგავსი ბაქტერიის გამოვლენა. ნაწილი 2: ყველაზე შესაძლო რიცხვის გამოთვლის მეთოდი"

4 პირველად

5 რეგისტრირებულია საქართველოს სტანდარტების და მეტროლოგიის ეროვნული სააგენტოს რეესტრში: 2013 წლის 21 მარტი №268-1.3-5426

წინამდებარე სტანდარტის სრული ან ნაწილობრივი აღწარმოება, ტირაჟირება და გავრცელება საქართველოს სტანდარტების და მეტროლოგიის ეროვნული სააგენტოს ნებართვის გარეშე არ დაიშვება

INTERNATIONAL STANDARD

ISO 9308-2

> Second edition 2012-07-01

Water quality — Enumeration of Escherichia coli and coliform bacteria —

Part 2: **Most probable number method**

Qualité de l'eau — Dénombrement des Escherichia coli et des organismes coliformes —

Partie 2: Méthode du nombre le plus probable





COPYRIGHT PROTECTED DOCUMENT

© ISO 2012

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office
Case postale 56 • CH-1211 Geneva 20
Tel. + 41 22 749 01 11
Fax + 41 22 749 09 47
E-mail copyright@iso.org
Web www.iso.org

Published in Switzerland

Contents Page Forewordiv Introduction......v 1 Scope......1 2 3 Terms and definitions2 Principle ______2 4 5 Apparatus and glassware......2 Culture media and reagents3 6 7 Sampling 3 8 Procedure 3 Expression of results4 9 Test report......4 10 Quality assurance......4 11 Annex A (informative) Further microbiological information on coliform bacteria......5 Annex B (normative) The Quanti-Tray⁵⁾ Sealer and calculation of results6 Annex C (informative) Composition of the Colilert-18 medium42 Annex D (informative) Validation of Colilert-18/Quanti-Tray⁸⁾ for the enumeration of E.coli and coliform bacteria from water.......44

Bibliography.......46

Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

ISO 9308-2 was prepared by Technical Committee ISO/TC 147, *Water quality*, Subcommittee SC 4, *Microbiological methods*.

This second edition cancels and replaces the first edition (ISO 9308-2:1990), which has been technically revised.

ISO 9308 consists of the following parts, under the general title *Water quality* — *Enumeration of Escherichia coli and coliform bacteria*:

- Part 1: Membrane filtration method for waters with low bacterial background flora
- Part 2: Most probable number method
- Part 3: Miniaturized method (Most Probable Number) for the detection and enumeration of E. coli in surface and waste water

Introduction

The presence and extent of faecal pollution is an important factor in assessing the quality of a body of water and the risk to human health from infection. Examination of water samples for the presence of *Escherichia coli* (*E. coli*), which normally inhabits the bowel of man and other warm-blooded animals, provides an indication of such pollution. Examination for coliform bacteria can be more difficult to interpret because some coliform bacteria live in soil and surface fresh water and are not always intestinal. Therefore, the presence of coliform bacteria, although not a proof of faecal contamination, may indicate a failure in treatment or ingress of water into the distribution system.

The International Organization for Standardization (ISO) draws attention to the fact that it is claimed that compliance with this document may involve the use of patents concerning Colilert-18 and Quanti-Tray and Quanti-Tray 2000 given in this document.

ISO takes no position concerning the evidence, validity and scope of these patent rights.

The holder of this patent right has assured the ISO that he/she is willing to negotiate licences either free of charge or under reasonable and non-discriminatory terms and conditions with applicants throughout the world. In this respect, the statement of the holder of this patent right is registered with ISO. Information may be obtained from:

IDEXX Laboratories, Inc.
One IDEXX Drive
Westbrook, Maine 04092 USA

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights other than those identified above. ISO shall not be held responsible for identifying any or all such patent rights.

ISO (http://www.iso.org/patents) and IEC (http://patents.iec.ch) maintain on-line databases of patents relevant to their standards. Users are encouraged to consult the databases for the most up to date information concerning patents.