

Water quality — Determination of pH

ICS 13.060.50

National foreword

This British Standard is the UK implementation of EN ISO 10523:2012. It is identical to ISO 10523:2008. It supersedes BS ISO 10523:2008 which is withdrawn.

The UK participation in its preparation was entrusted by Technical Committee EH/3, Water quality, to Subcommittee EH/3/2, Physical chemical and biochemical methods.

A list of organizations represented on this subcommittee 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.

Compliance with a British Standard cannot confer immunity from legal obligations.

This British Standard was published under the authority of the Standards Policy and Strategy Committee on 30 June 2010

© The British Standards Institution 2012. Published by BSI Standards Limited 2012.

ISBN 978 0 580 75429 6

Amendments/corrigenda issued since publication

Date	Comments
30 April 2012	This corrigendum renumbers BS ISO 10523:2008 as BS EN ISO 10523:2012

English Version

Water quality - Determination of pH (ISO 10523:2008)

Qualité de l'eau - Détermination du pH (ISO 10523:2008)

Wasserbeschaffenheit - Bestimmung des pH-Wertes (ISO 10523:2008)

This European Standard was approved by CEN on 15 January 2012.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CEN member.

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.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.



EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

Management Centre: Avenue Marnix 17, B-1000 Brussels

PDF disclaimer

This PDF file may contain embedded typefaces. In accordance with Adobe's licensing policy, this file may be printed or viewed but shall not be edited unless the typefaces which are embedded are licensed to and installed on the computer performing the editing. In downloading this file, parties accept therein the responsibility of not infringing Adobe's licensing policy. The ISO Central Secretariat accepts no liability in this area.

Adobe is a trademark of Adobe Systems Incorporated.

Details of the software products used to create this PDF file can be found in the General Info relative to the file; the PDF-creation parameters were optimized for printing. Every care has been taken to ensure that the file is suitable for use by ISO member bodies. In the unlikely event that a problem relating to it is found, please inform the Central Secretariat at the address given below.



COPYRIGHT PROTECTED DOCUMENT

© ISO 2008

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

Foreword.....	iv
Introduction	v
1 Scope	1
2 Normative references	1
3 Terms and definitions.....	1
4 Principle.....	2
5 Interferences	2
6 Reagents	3
7 Apparatus	3
8 Sampling.....	4
9 Procedure	5
9.1 Preparation	5
9.2 Calibration and adjustment of the measuring equipment.....	5
9.3 Measurement of the samples	6
10 Expression of results	6
11 Test report	6
Annex A (informative) pH values of primary standard reference solutions.....	7
Annex B (informative) Operative measurements in flow systems	8
Annex C (informative) Field measurement (on-site measurement)	10
Annex D (informative) Measurements of the pH value in water with low ionic strength	11
Annex E (informative) Performance data	12
Bibliography	13

Foreword

The text of ISO 10523:2008 has been prepared by Technical Committee ISO/TC 147 “Water quality” of the International Organization for Standardization (ISO) and has been taken over as EN ISO 10523:2012 by Technical Committee CEN/TC 230 “Water analysis” the secretariat of which is held by DIN.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by August 2012, and conflicting national standards shall be withdrawn at the latest by August 2012.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

Endorsement notice

The text of ISO 10523:2008 has been approved by CEN as a EN ISO 10523:2012 without any modification.

Introduction

The measurement of the pH value of water is of great importance for many types of sample. High and low pH values are toxic for aquatic organisms, either directly or indirectly. The pH value is the most useful parameter in assessing the corrosive properties of an aquatic environment. Also, it is important for the effective operation of water treatment processes and their control (e.g. flocculation and chlorine disinfection), control of plumbosolvency of drinking waters and biological treatment of sewage and sewage discharges.

The electrometric methods addressed in this International Standard are based on measuring the potential difference of an electrochemical cell where one of the two half-cells is a measuring electrode and the other is a reference electrode. The potential of the measuring electrode is a function of the hydrogen ion activity of the measuring solution (Reference [5]).

In view of its great practical importance, universality and exactitude, only measuring using the pH glass electrode is described in this International Standard.

In the reference electrode, electrolytes applied can be in liquid, polymer or gel form.

This page deliberately set blank