
**Water quality — Determination of
volatile organic compounds in water
— Method using headspace solid-
phase micro-extraction (HS-SPME)
followed by gas chromatography-mass
spectrometry (GC-MS)**

*Qualité de l'eau — Détermination de composés organiques volatils
dans l'eau — Méthode utilisant une micro-extraction en phase solide
(MEPS) de l'espace de tête suivie d'une chromatographie en phase
gazeuse-spectrométrie de masse (CG-SM)*



COPYRIGHT PROTECTED DOCUMENT

© ISO 2016, Published in Switzerland

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office
Ch. de Blandonnet 8 • CP 401
CH-1214 Vernier, Geneva, Switzerland
Tel. +41 22 749 01 11
Fax +41 22 749 09 47
copyright@iso.org
www.iso.org

Contents

Page

Foreword	iv
Introduction	v
1 Scope	1
2 Normative references	3
3 Principle	3
4 Interferences	4
4.1 Sampling	4
4.2 Extraction	4
4.3 Gas chromatography and mass spectrometry	5
5 Reagents	5
6 Apparatus	7
7 Sampling and sample pretreatment	8
8 Procedure	8
8.1 Sample preparation and extraction	8
8.2 Gas chromatography	9
8.3 Identification of individual compounds by means of mass spectrometry (GC-MS)	9
8.4 Blank value measurements	11
9 Calibration	11
9.1 General	11
9.2 Calibration of the total procedure using the internal standard	12
10 Calculation of the results	13
11 Expression of results	13
12 Test report	14
Annex A (informative) Examples of suitable SPME fibres	15
Annex B (informative) Examples of GC columns	16
Annex C (informative) Examples of internal standards	17
Annex D (informative) Suitable gas chromatographic conditions and example chromatograms for compounds of Table 1	19
Annex E (informative) General information on SPME	33
Annex F (informative) Performance data	34
Bibliography	43