

ISO 17943:2016-04 (E)

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)

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