ISO 20595:2018-01 (E)

Water quality - Determination of selected highly volatile organic compounds in water - Method using gas chromatography and mass spectrometry by static headspace technique (HS-GC-MS)

Contents

Page

Foreword iv

Introduction v

1 Scope 1

2 Normative references 3

3 Termsanddefinitions 3

4 Principle 3

5 Interferences 4
5.1 General 4
5.2 Interferences in the laboratory 4
5.3 Interferences by the matrix 4
5.4 Interferences in the headspace 4
5.5 Interferences during gas chromatography and mass spectrometry 4

6 Reagents 4

7 Apparatus 6

8 Sampling 6

9 Procedure 7
9.1 Sample preparation 7
9.2 GC-MS operating conditions 7
9.3 Control measures 7
9.3.1 Blank value control 7
9.3.2 Control over the total procedure 7
9.4 Identification of individual compounds 8
9.4.1 General 8
9.4.2 Identification of individual compounds with mass spectrometric detector 8

10 Calibration 10
10.1 General 10
10.2 Calibration with internal standard 11

11 Evaluation 12

12 Expression of results 12

13 Test report 12

Annex A (informative) Example of GC column, headspace vial and septum 13

Annex B (informative) Examples of internal standards 14

Annex C (informative) Example of headspace and gas chromatographic conditions 16

Annex D (informative) Performance data 17

Bibliography 24