

# 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)

---

<b>Contents</b>		<b>Page</b>
Foreword .....		iv
Introduction .....		v
<b>1</b>	<b>Scope .....</b>	<b>1</b>
<b>2</b>	<b>Normative references .....</b>	<b>3</b>
<b>3</b>	<b>Terms and definitions .....</b>	<b>3</b>
<b>4</b>	<b>Principle .....</b>	<b>3</b>
<b>5</b>	<b>Interferences .....</b>	<b>4</b>
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
<b>6</b>	<b>Reagents .....</b>	<b>4</b>
<b>7</b>	<b>Apparatus .....</b>	<b>6</b>
<b>8</b>	<b>Sampling .....</b>	<b>6</b>
<b>9</b>	<b>Procedure .....</b>	<b>7</b>
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
<b>10</b>	<b>Calibration .....</b>	<b>10</b>
10.1	General .....	10
10.2	Calibration with internal standard .....	11
<b>11</b>	<b>Evaluation .....</b>	<b>12</b>
<b>12</b>	<b>Expression of results .....</b>	<b>12</b>
<b>13</b>	<b>Test report .....</b>	<b>12</b>
<b>Annex A (informative) Example of GC column, headspace vial and septum .....</b>		<b>13</b>
<b>Annex B (informative) Examples of internal standards .....</b>		<b>14</b>

<b>Annex C (informative) Example of headspace and gas chromatographic conditions .....</b>	<b>16</b>
<b>Annex D (informative) Performance data .....</b>	<b>17</b>
<b>Bibliography .....</b>	<b>24</b>