ISO 22032:2026-05 (E)

Water quality - Determination of polybrominated diphenyl ethers (PBDE) in sediment, suspended particulate matter and biota - Method using gas chromatography coupled with tandem mass spectrometry (GC-MS/MS) or with high resolution mass spectrometry (GC-HRMS)

Contents

Page

Foreword iv

Introduction v

1 Scope 1

2 Normative references 1

3 Termsanddefinitions 2

4 Principle 2

5 Interferences 3

6 Reagents and standards 3

7 Apparatus 6

8 Sampling and sample pretreatment 7

9 Procedure 7
9.1 Extraction of sediment or particulate matter samples by pressurized liquid extraction (PLE) or Soxhlet 7
9.2 Extraction of biota samples 8
9.2.1 PLE, Soxhlet or Twisselmann extraction 8
9.2.2 Cold extraction alternative (biota) 8

10 Clean-up of sample extracts 8

11 Measurement and integration of the chromatogram 10

12 Calibration 10
12.1 General 10
12.2 Estimation of the linear range 11
12.3 Calibration of the measuring method using an internal standard, ... 11
12.4 Injection standard 11

13 Identification 11

14 Quantification 11
14.1 Quantification using internal standards, including quality checks of the recovery of the internal standards 11
14.2 Testing the validity of calibration 12

15 Expression of results 12

16 Test report 12

Annex A (normative) Program for pressurized liquid extraction 13

Annex B (normative) Clean-up methods 15

Annex C (informative) Typical GC-MS conditions and m/z values for identification and quantification 20

Annex D (informative) Examples of linearity check and calibration working solutions 26

Annex E (informative) Performance data 28

Bibliography 31