DIN EN ISO 13165-3:2025-05 (E)

Water quality - Radium-226 - Part 3: Test method using coprecipitation and gamma-ray spectrometry (ISO 13165-3:2024)

Contents

Page

Foreword ..... **iv**

Introduction ..... **v**

1 Scope **1**

2 Normative references **1**

3 Terms and definitions **2**

4 Symbols **2**

5 Principle **3**

6 Reagents and equipment **4**
6.1 Reagents 4
6.2 Equipment 4

7 Sampling **5**
7.1 General 5
7.2 Sample collection 5
7.3 Sample transportation and storage 5

8 Procedure **5**
8.1 Blank sample preparation 5
8.2 Sample preparation 5
8.3 Counting procedure 6

9 Quality assurance and quality control programme **6**
9.1 General 6
9.2 Interferences 6
9.3 Method verification 7
9.4 Demonstration of analyst capability 7

10 Expression of results **7**
10.1 General 7
10.2 Water-soluble ^{226}Ra activity concentration 7
10.3 Standard uncertainty of activity concentration 8
10.4 Decision threshold 8
10.5 Detection limit 9
10.6 Limits of the coverage intervals 9
10.6.1 Limits of the probabilistically symmetric coverage interval 9
10.6.2 Shortest coverage interval 10
10.7 Corrections for contributions from other radionuclides and background 10
10.7.1 General 10
10.7.2 Contribution from other radionuclides 10
10.7.3 Contribution from background 11

11 Test report **12**

Annex A (informative) **Uranium-238 decay chain** **14**

Bibliography **15**