DIN EN ISO 22125-1:2024-05 (E)

Water quality - Technetium-99 - Part 1: Test method using liquid scintillation counting (ISO 22125-1:2019)

Contents

Page

European foreword ... **3**

Foreword ... **4**

Introduction ... **5**

1 Scope ... **7**

2 Normative references ... **7**

3 Terms, definitions and symbols ... **8**

4 Principle ... **9**

5 Sampling and storage ... **10**

6 Procedure ... **10**
6.1 Sample preparation for measurement ... 10
6.2 Sample measurement ... 11

7 Quality assurance and quality control program ... **11**
7.1 General ... 11
7.2 Variables that could influence the measurement ... 11
7.3 Instrument verification ... 11
7.4 Contamination ... 11
7.5 Interference control ... 11
7.6 Method verification ... 11
7.7 Demonstration of analyst capability ... 12
7.8 Sample measurement ... 12

8 Expression of results ... **12**
8.1 Sample activity, recovery and uncertainties ... 12
8.2 Decision threshold ... 14
8.3 Detection limit ... 15
8.4 Confidence interval limits ... 15
8.5 Calculation using the activity per unit of volume ... 15
8.6 Conversion of activity concentration to mass concentration ... 16
8.7 Conversion of mass concentration to volume unit ... 16

9 Test report ... **16**

Annex A (informative) **Method 1 — TEVA resin** ... **18**

Annex B (informative) **Method 2 — TRU resin** ... **21**

Annex C (informative) **Method 3 — Anion exchange resin** ... **24**

Bibliography ... **26**