

ISO 9697:2015-04 (E)

Water quality - Gross beta activity in non-saline water - Test method using thick source

| Contents | | Page |
|---|---|-------------|
| Foreword | | iv |
| Introduction | | v |
| 1 | Scope | 1 |
| 2 | Normative references | 1 |
| 3 | Symbols, definitions, and units | 2 |
| 4 | Principle | 3 |
| 5 | Reagents and equipment | 3 |
| 5.1 | Reagents | 3 |
| 5.2 | Equipment | 3 |
| 6 | Procedure | 4 |
| 6.1 | Sampling | 4 |
| 6.2 | Pretreatment | 4 |
| 6.3 | Concentration stage | 4 |
| 6.4 | Sulfation stage | 5 |
| 6.5 | Ignition stage | 5 |
| 6.6 | Source preparation | 5 |
| 6.7 | Measurement | 5 |
| 6.8 | Determination of counting background | 6 |
| 6.9 | Preparation of calibration sources | 6 |
| 6.10 | Sensitivity and bias | 6 |
| 6.11 | Optimization of the determination | 6 |
| 7 | Source control | 7 |
| 7.1 | Contamination check | 7 |
| 7.2 | Potential disequilibrium of radionuclides | 7 |
| 8 | Expression of results | 7 |
| 8.1 | Calculation of activity concentration | 7 |
| 8.2 | Standard uncertainty | 8 |
| 8.3 | Decision threshold | 9 |
| 8.4 | Detection limit | 9 |
| 8.5 | Confidence limits | 9 |
| 9 | Test report | 10 |
| Annex A (informative) Example of performance criteria | | 11 |
| Bibliography | | 12 |