

DIN EN ISO 21268-3:2020-09 (E)

Soil quality - Leaching procedures for subsequent chemical and ecotoxicological testing of soil and soil-like materials - Part 3: Up-flow percolation test (ISO 21268-3:2019)

| Contents | | Page |
|--|--|------|
| European foreword | | 4 |
| Foreword | | 5 |
| Introduction | | 6 |
| 1 Scope | | 7 |
| 2 Normative references | | 8 |
| 3 Terms and definitions | | 8 |
| 4 Principle | | 9 |
| 5 Reagents and materials | | 10 |
| 6 Apparatus | | 10 |
| 7 Sample pre-treatment | | 12 |
| 7.1 Preparation of laboratory sample and specification of particle size | | 12 |
| 7.2 Preparation of the test sample | | 13 |
| 7.3 Test portion | | 13 |
| 7.4 Determination of dry matter content | | 13 |
| 8 Procedure | | 14 |
| 8.1 Temperature | | 14 |
| 8.2 Preparation of the eluent | | 14 |
| 8.3 Preparation of the column | | 14 |
| 8.4 Packing of the column | | 14 |
| 8.5 Start of the test | | 15 |
| 8.6 Sample Collection and Liquid/Solid separation step | | 16 |
| 8.7 Collection of additional eluate fractions | | 17 |
| 8.8 Further preparation of the eluates for analysis | | 18 |
| 8.9 Blank test | | 18 |
| 9 Calculation | | 18 |
| 10 Test report | | 19 |
| 11 Analytical determination | | 19 |
| 11.1 General | | 19 |
| 11.2 Blank test information | | 19 |
| 12 Performance characteristics | | 20 |
| 12.1 General | | 20 |
| 12.2 Validation trials performed in Japan | | 21 |
| 12.2.1 Round robin tests performed in accordance with ISO/TS 21268-3:2007 | | 21 |
| 12.2.2 Robustness testing and validation results considering equilibration period and flow rate | | 21 |
| 12.3 Validation results obtained in Germany (DIN 19528 ^[5]) | | 22 |
| 12.3.1 General | | 22 |
| 12.3.2 Results for validation trial 1 | | 23 |
| 12.3.3 Results for validation trial 2 | | 26 |

| | |
|---|-----------|
| Annex A (informative) Suggestions for packing the column, water saturation and establishment of equilibrium conditions | 31 |
| Annex B (informative) Justification of the choices made in developing the test procedure | 33 |
| Annex C (informative) Calculation of centrifugation duration depending on centrifugation speed and rotor dimensions..... | 37 |
| Annex D (informative) Additional information on robustness testing and validation results based on waste materials..... | 39 |
| Bibliography | 40 |