

ISO 15753:2016-04 (E)

Animal and vegetable fats and oils - Determination of polycyclic aromatic hydrocarbons

| Contents | | Page |
|--|---|-------------|
| Foreword | | iv |
| 1 | Scope | 1 |
| 2 | Normative references | 1 |
| 3 | Terms and definitions | 1 |
| 4 | Principle | 2 |
| 5 | Reagents and materials | 2 |
| 6 | Apparatus | 3 |
| 7 | Sampling | 4 |
| 8 | Sample preparation | 5 |
| 9 | Procedure for determination of PAHs from fats and oils: General method | 5 |
| 9.1 | Preliminary remarks | 5 |
| 9.2 | Blank | 5 |
| 9.3 | Determination of recovery values (without matrix) | 5 |
| 9.4 | Extraction (liquid/liquid extraction) | 5 |
| 9.5 | Purification on C18-bonded phase cartridge (solid/liquid extraction) | 6 |
| 9.6 | Purification on Florisil-bonded phase cartridge (solid/liquid extraction) | 7 |
| 10 | Procedure for determination of PAHs from fats and oils: Method specific for coconut oil | 8 |
| 10.1 | First extraction (liquid/liquid extraction) | 8 |
| 10.2 | Second extraction (liquid/liquid extraction) | 8 |
| 10.3 | Purification on C18-bonded phase cartridge (solid/liquid extraction) | 8 |
| 10.4 | Purification on Florisil-bonded phase cartridge (solid/liquid extraction) | 9 |
| 11 | High-performance liquid chromatography (HPLC) | 10 |
| 11.1 | Operating conditions | 10 |
| 11.2 | Detection parameters | 10 |
| 11.3 | Analysis of samples and standards | 12 |
| 11.4 | Confirmation of the presence of PAHs | 12 |
| 12 | Expression of results | 12 |
| 13 | Precision | 13 |
| 13.1 | Interlaboratory test | 13 |
| 13.2 | Repeatability | 13 |
| 13.3 | Reproducibility | 13 |
| 14 | Test report | 13 |
| Annex A (informative) Recovery values, flowcharts, chromatograms and injection sequences | | 15 |
| Annex B (informative) Results of the interlaboratory test | | 20 |
| Bibliography | | 23 |