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 Termsanddefinitions 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 ProcedurefordeterminationofPAHsfromfatsandoils:Methodspecificforcoconutoil 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)Recoveryvalues,flowcharts,chromatogramsandinjectionsequences 15

Annex B (informative) Results of the interlaboratory test 20

Bibliography 23