DIN EN 17517:2021-12 (E)

Animal feeding stuffs: Methods of sampling and analysis - Determination of mineral oil saturated hydrocarbons (MOSH) and mineral oil aromatic hydrocarbons (MOAH) with on-line HPLC-GC-FID analysis

Contents

Page

European foreword 3

Introduction 4

1 Scope 5

2 Normative references 5

3 Terms and definitions 5

4 Principle 6

5 Reagents 6

6 Apparatus 9

7 Sampling 10

8 Preparation of the test sample 10

9 Preparation of the analytical sample 10
9.1 Fat extraction from feed sample 10
9.2 Procedure for fats and fat extracts 11
9.3 Blank 11

10 Liquid chromatography and gas chromatography 12
10.1 Liquid chromatography setup 12
10.2 Working conditions for HPLC 12
10.3 HPLC-GC-interface 13
10.4 Gas chromatography setup 14
10.5 Working conditions for GC 14
10.6 Solvent vapor exit 15
10.7 Peak identification 15
10.8 Performance of the HPLC-GC system 15
10.9 Quantitative determination of hydrocarbons attributed to mineral oil origin 16

11 Precision 17
11.1 Interlaboratory test 17
11.2 Repeatability 17
11.3 Reproducibility 17

12 Test report 17

Annex A (informative) Examples of chromatograms 19

Annex B (informative) Precision data 25

Annex C (informative) Determination of saturated hydrocarbons of mineral oil - Manual alternative method to on line HPLC-GC-FID analysis 28

Bibliography 40