

ISO 12966-4:2015-06 (E)

Animal and vegetable fats and oils - Gas chromatography of fatty acid methyl esters - Part 4: Determination by capillary gas chromatography

Contents		Page
Foreword		iv
1	Scope	1
2	Normative references	1
3	Principle	1
4	Reagents and materials	1
4.1	Reference fatty acid methyl esters (FAMES)	2
4.2	Internal standards	2
5	Apparatus	3
6	Sampling	4
7	Preparation of test sample	4
8	Preparation of methyl esters from fats, oils, and fatty acids	4
9	Procedure	4
9.1	General	4
9.2	GC conditions	4
9.3	Performance check	5
10	Calculations	5
10.1	Qualitative analysis and peak identification	5
10.2	Quantitative analysis	5
10.2.1	Calculation of the composition of fatty acid methyl esters	5
10.2.2	Calculation of the composition of fatty acid methyl esters using correction factors	6
10.2.3	Calculation of the composition of fatty acid methyl esters using an internal standard	6
11	Precision	7
11.1	Results of interlaboratory test	7
11.2	Repeatability	7
11.3	Reproducibility	7
12	Test report	7
Annex A (informative)	Theoretical flame ionization detector correction factor (TCF) for fatty acid methyl esters (FAMES)	9
Annex B (informative)	Examples of chromatograms	10
Annex C (informative)	Comparison of FAME composition with two different GC columns	12
Annex D (informative)	Results of an interlaboratory trial	14
Bibliography		20