

DIN EN ISO 18363-4:2021-11 (E)

Animal and vegetable fats and oils - Determination of fatty-acid-bound chloropropanediols (MCPDs) and glycidol by GC/MS - Part 4: Method using fast alkaline transesterification and measurement for 2-MCPD, 3-MCPD and glycidol by GC-MS/MS (ISO 18363-4:2021)

Contents		Page
European foreword	.....	3
Foreword	.....	4
Introduction	.....	5
1 Scope	.....	7
2 Normative references	.....	7
3 Terms and definitions	.....	7
4 Principle	.....	8
5 Reagents	.....	8
5.1 General	.....	8
5.2 Standard and reference compounds	.....	8
5.3 Standard solutions	.....	9
5.3.1 General	.....	9
5.3.2 Stock solutions	.....	9
5.3.3 Working solutions	.....	9
5.4 Other reagents	.....	10
5.5 Reagent solutions	.....	10
6 Apparatus	.....	11
7 Sample and storage	.....	11
7.1 Sampling	.....	11
7.2 Preparation of the test sample	.....	11
7.3 Storage conditions	.....	12
8 Procedure	.....	12
8.1 Test sample preparation	.....	12
8.2 Preparation of the calibration curve	.....	13
8.3 Gas chromatography and mass spectrometry settings	.....	13
9 Expression of results	.....	14
9.1 General	.....	14
9.2 Quantification of 2-MCPD- and 3-MCPD esters	.....	14
9.3 Quantification of glycidyl esters	.....	16
9.4 Quality control	.....	18
10 Notes	.....	19
11 Precision	.....	20
11.1 General	.....	20
11.2 Repeatability	.....	20
11.3 Between-day reproducibility	.....	20
Annex A (normative) Supporting tables	.....	21
Annex B (informative) Statistical results of the ISO collaborative study	.....	23
Annex C (informative) Chromatograms	.....	26
Bibliography	.....	28