DIN EN ISO 18363-2:2025-04 (E)

Animal and vegetable fats and oils - Determination of fatty-acid-bound chloropropanediols (MCPDs) and glycidol by GC/MS - Part 2: Method using slow alkaline transesterification and measurement for 2-MCPD, 3-MCPD and glycidol (ISO 18363-2:2025)

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 ... **9**
5.1 General ... 9
5.2 Solvents and chemicals ... 9
5.3 Standard and reference compounds ... 9
5.4 Working solutions ... 10
5.5 Other solutions ... 10

6 Apparatus ... **10**

7 Sample ... **11**
7.1 Sampling ... 11
7.2 Preparation of the test sample ... 11

8 Procedure ... **11**
8.1 Spiking with surrogate standard and homogenization ... 11
8.2 Ester cleavage and glycidol transformation ... 11
8.3 Matrix removal ... 12
8.4 Derivatization ... 12
8.5 Gas chromatography/mass spectrometry references ... 12

9 Expression of results ... **13**
9.1 Determination of bound glycidol ... 13
9.2 Determination of bound 2-MCPD ... 14
9.3 Determination of bound 3-MCPD ... 15
9.4 Determination of the degree of diester cleavage ... 15
9.5 Quality control ... 15

10 Notes ... **16**

Annex A (informative) **Examples of relevant chromatograms and data evaluation using "low-MCPD" palm oil** ... **18**

Annex B (informative) **Results of interlaboratory tests** ... **25**

Bibliography ... **27**