ISO 18363-4:2021 (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

Contents

Foreword

Introduction

1 Scope

2 Normative references

3 Terms and definitions

4 Principle

5 Reagents

- 5.1 General
- 5.2 Standard and reference compounds
- 5.3 Standard solutions
- 5.3.1 General
- 5.3.2 Stock solutions
- 5.3.3 Working solutions
- 5.4 Other reagents
- 5.5 Reagent solutions

6 Apparatus

7 Sample and storage

- 7.1 Sampling
- 7.2 Preparation of the test sample
- 7.3 Storage conditions

8 Procedure

- 8.1 Test sample preparation
- 8.2 Preparation of the calibration curve
- 8.3 Gas chromatography and mass spectrometry settings

9 Expression of results

- 9.1 General
- 9.2 Quantification of 2-MCPD- and 3-MCPD esters
- 9.3 Quantification of glycidyl esters
- 9.4 Quality control

10 Notes

11 Precision

- 11.1 General
- 11.2 Repeatability
- 11.3 Between-day reproducibility

Annex A (normative) Supporting tables

Annex B (informative) Statistical results of the ISO collaborative study

Annex C (informative) Chromatograms