FAMEs, $C_{18} - C_{20}$
Analysis of hydrogenated vegetable oil

Application Note

Food Testing & Agriculture

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Introduction
Gas chromatography with an Agilent CP-Sil 88 CB column separates four $C_{18}$ to $C_{20}$ fatty acid methyl esters in hydrogenated vegetable oil in 18 minutes.
Conditions

Technique: GC-capillary

Column: Agilent CP-Sil 88 for FAME, 0.25 mm x 50 m fused silica WCOT CP-Sil 88 (df = 0.2 μm)
(Part no. CP7488)

Temperature: 140 °C → 180 °C, 8 °C/min

Carrier Gas: He, 130 kPa (1.3 bar, 19 psi)

Injector: Splitter, 74 mL/min
T = 250 °C

Detector: FID
T = 250 °C

Sample Size: 0.7μL

Concentration range: 7 mg/mL

Courtesy: G. S. M. J. E. Duchateau, Physical & Analytical Sciences/Unilever, Research Lab, Vlaardingen, The Netherlands

Peak identification

1. C18:0
2. C16:1 w 9 cis
3. C18:2 w 9 cis, 12 cis
4. C20:0