



Analysis of FAME in soya bean oil

Application Note

Food Testing & Agriculture

Authors

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Introduction

FAME components can be separated on several stationary phases. Highest resolution for FAME will be obtained using polar phases, like the Agilent CP-Sil 88. The Agilent CP-Select CB for FAME is a 100% bonded polar phase with a selectivity comparable to the CP-Sil 88, but with a unique stability as it is 100% immobilized. As a result the CP-Select CB for FAME can be used repeatedly with splitless or on-column injection techniques without losing efficiency.

The bonded polar phase is also stable up to 290 °C, allowing a fast bake-out. Column bleed is very low providing excellent quantification for trace compounds especially in combination with sensitive MS detectors. Another characteristic of the CP-Select CB for FAME is the high loadability, which is at least a factor 3 higher allowing better separations for FAME isomers eluting close together.



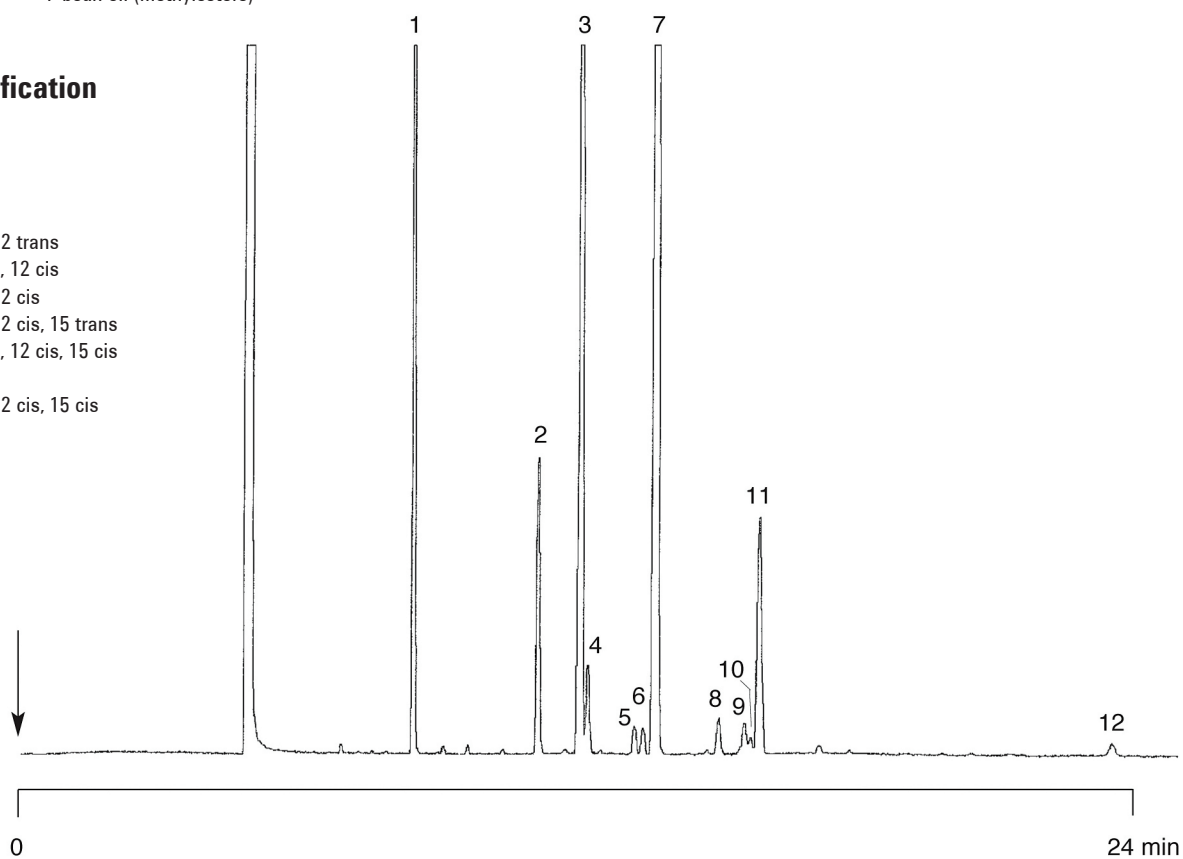
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Conditions

Technique : GC-capillary
Column : Agilent CP-Select CB for FAME, 0.25 mm x 50 m
fused silica WCOT (Part no. CP7419)
Temperature : 185 °C
Carrier Gas : He, 130 kPa (1.3 bar, 19 psi)
Injector : Split, 1:100
T = 250 °C
Detector : FID
T = 250 °C
Sample Size : 1 µL
Sample : bean oil (methylesters)

Peak identification

1. C16:0
2. C18:0
3. C18:1 9 cis
4. C18:1 11 cis
5. C18:2 9 cis, 12 trans
6. C18:2 9 trans, 12 cis
7. C18:2 9 cis, 12 cis
8. C18:3 9 cis, 12 cis, 15 trans
9. C18:3 9 trans, 12 cis, 15 cis
10. C20:0
11. C18:3 9 cis, 12 cis, 15 cis
12. C22:0



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This information is subject to change without notice.

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