

FAMES In Palm Oil by GC/FID on Zebron ZB-FAME

Column: Zebron ZB-FAME, GC Cap.Column 60m x 0.25mm x 0.2um, Ea

Phase:

Dimensions: 60 meters x 0.25 mm x 0.2 µm

Order No: 7KG-G033-10

Oven Profile: 180 °C isothermal

Carrier Gas: Constant Flow Helium, 1.2 mL/min

Injection: Split 100:1 1 µL @ 240°C

Detection: Flame Ionization (FID) (240°C)

Analyst Note: Recommended Accessories:
Recommended Liner: Zebron PLUS Single Taper with Wool, 4 mm ID
Liner Part No.: AG2-0A11-05 (for Agilent systems)
Inlet Seal: AG0-8620 (Gold Plated Easy Seal)
Septum: AG0-4696 (PhenoRed-400)

Sample Preparation:

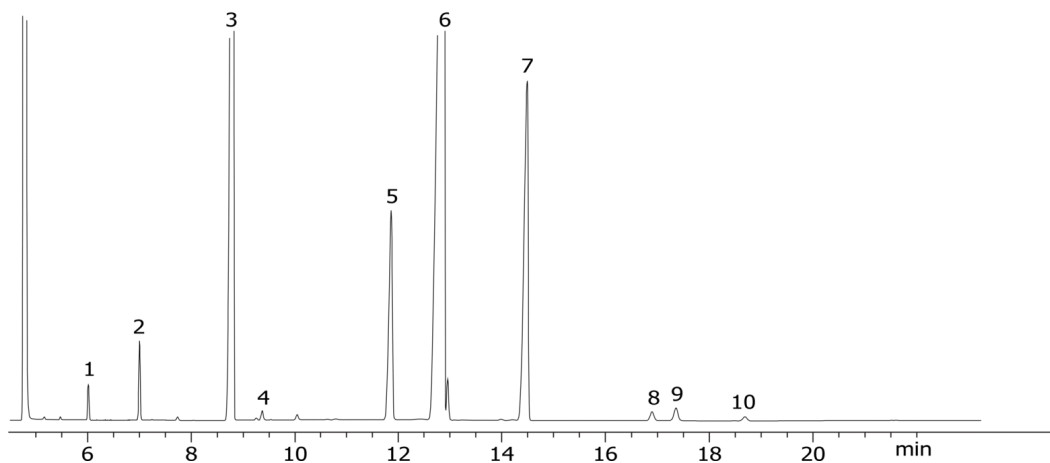
1. Weigh 0.2 g of sample into a glass test tube
2. Add 3.8 mL of hexane and vortex
3. Condition SPE tube (Strata® Si-1, 2 g/12 mL, Part No.: 8B-S012-KDG) under vacuum with 6 mL of hexane; do not let bed go dry
4. Load sample with light vacuum
5. Elute with 5 mL of hexane:ethyl acetate (87:13)
6. Evaporate under nitrogen at 35 °C
7. Reconstitute with 4 mL of hexane
8. Add 200 µL of 2 M potassium hydroxide/methanol solution and vortex
9. Leave at room temperature for 5 minutes
10. Add 2 mL of deionized water and vortex
11. Leave to separate until upper layer becomes clear
12. Extract upper layer for GC analysis



Products used in this application:



23969



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ANALYTES:

- 1 C12:0
- 2 C14:0
- 3 C16:0
- 4 C16:1 cis 9
- 5 C18:0
- 6 C18:1 cis 9
- 7 C18:2 cis 9,12
- 8 C18:3 cis 9,12,15
- 9 C20:0
- 10 C20:1 cis 11



Sample Preparation Details

for GC Application ID No.: 23969

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PRODUCT DESCRIPTION:

Strata® SI-1 Silica (55 µm, 70 Å), 2 g / 12 mL, Giga Tubes , 20/Pk

Order No.: 8B-S012-KDG

SOLID PHASE EXTRACTION (SPE) PROCEDURE:

Note: The solvent volumes shown below are for a 2 g bed mass.

The solvent volumes will need to be adjusted for a smaller or larger bed mass.

Condition:

Load:

Add 0.2 g oil to 3.8 mL Hexane, load onto cartridge

Wash:

Dry:

Elute:

Final Prep and Analysis:

To reconstituted sample, add 200 µL of 2 M potassium hydroxide in methanol, cap tube and vortex. Wait 5 minutes. Add 2 mL Milli-Q® water, vortex. Allow solution to settle then transfer

Inject: 1 µL on HPLC Flame Ionization (FID) @ (240°C)

ANALYTES:	Spiked Conc. (ng/mL)	Log P	pKa	% Rec	%RSC (n=0)
1 C12:0	0				
2 C14:0	0				
3 C16:0	0				
4 C16:1 cis 9	0				
5 C18:0	0				
6 C18:1 cis 9	0				
7 C18:2 cis 9,12	0				
8 C18:3 cis 9,12,15	0				
9 C20:0	0				
10 C20:1 cis 11	0				

Note: This method is designed as a convenient starting point for further investigation and can be tailored to meet your extraction goals. Call your local Phenomenex Representative for assistance in method development and optimization techniques.

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For more information contact your Phenomenex Representative at support@phenomenex.com



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www.phenomenex.com

support@phenomenex.com