GC Application

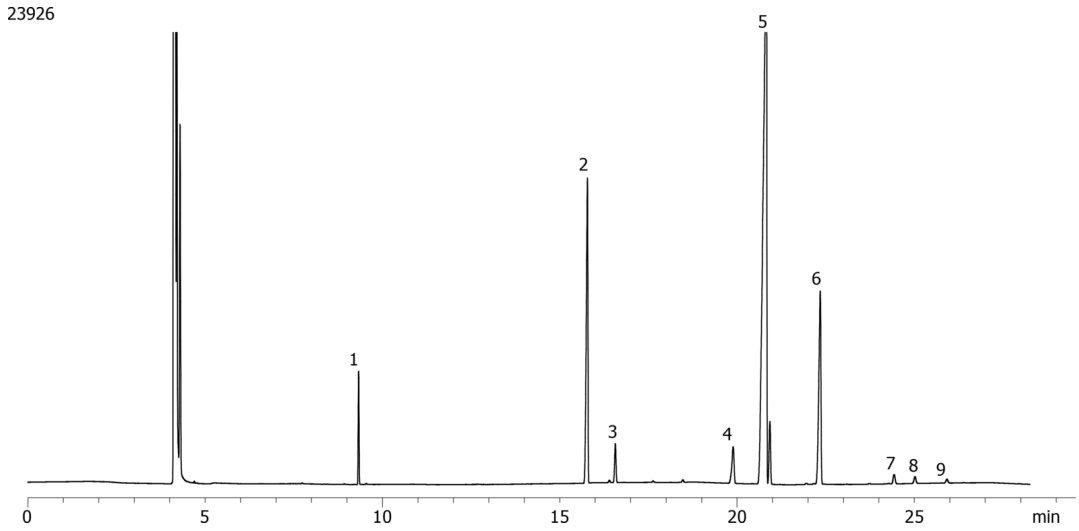
ID No.: **23926**

FAMEs In Regular Olive Oil by GC/FID on Zebron ZB-FAME (60 m)

Products used in this application:

Column: Zebron ZB-FAME, GC Cap.Column 60m x 0.25mm x 0.2um, Ea
Phase: Proprietary Pesticides Phase
Dimensions: 60 meters x 0.25 mm x 0.2 µm
Order No: 7KG-G033-10
Oven Profile: 100 °C for 2 min to 165 °C @ 10 °C/min to 200 °C @ 1.5 °C/min to 280 °C @ 15 °C/min for 1 min
Carrier Gas: Constant Flow Helium, 1.2 mL/min
Injection: Split 50:1 1 µL @ 240°C
Detection: Flame Ionization (FID) (260°C)
Analyst Note: 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. Strata® Si-1 Tube, 1 g/6 mL (Part No.: 8B-S012-JCH) on a vacuum or positive pressure manifold
2. Wash cartridge with 6 mL of hexane
3. Load oil solution (0.12 g of oil in 0.5 mL of hexane)
4. Elute with 10 mL of hexane/diethyl ether (87:13)
5. Evaporate eluate under a steady stream of nitrogen
6. Dissolve purified oil residue in 1mL of heptane
7. Add 0.1 mL of 2N potassium hydroxide in methanol to purified oil solution
8. Cap tube and shake vigorously for 15 seconds
9. Leave to separate until upper layer becomes clear
10. Extract upper layer for GC analysis



ANALYTES:

1. C11:0 (I.S.)
2. C16:0
3. C16:1 cis 9
4. C18:0
5. C18:1 cis 9
6. C18:2 cis 9,12
7. C18:3 cis 9,12,15
8. C20:0
9. C20:1 cis 11

Sample Preparation Details

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PRODUCT DESCRIPTION:

Strata® SI-1 Silica (55 µm, 70 Å), 1 g / 6 mL, Tubes , 30/Pk

Order No.: 8B-S012-JCH

SOLID PHASE EXTRACTION (SPE) PRODCEDURE:

Note: The solvent volumes shown below are for a 1 g bed mass.
The solvent volumes will need to be adjusted for a smaller or larger bed mass.

Condition:

Load:

Add 0.12 g oil to 0.5 mL Hexane and load onto cartridge

Wash:

Dry:

Elute:

Final Prep and Analysis:

To reconstituted sample, add 0.1 mL of 2 N Potssium hydroxide in methanol. Cap tube and shake vigorously for 15 seconds. Leave to separate until upper layer becomes clear. Extract upper layer

Inject: 1 µL on HPLC Flame Ionization (FID) @ (260°C)

	ANALYTES:	Spiked Conc. (ng/mL)	Log P	pKa	% Rec	%RSC (n=0)
1	C11:0 (I.S.)	0				
2	C16:0	0				
3	C16:1 cis 9	0				
4	C18:0	0				
5	C18:1 cis 9	0				
6	C18:2 cis 9,12	0				
7	C18:3 cis 9,12,15	0				
8	C20:0	0				
9	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.*