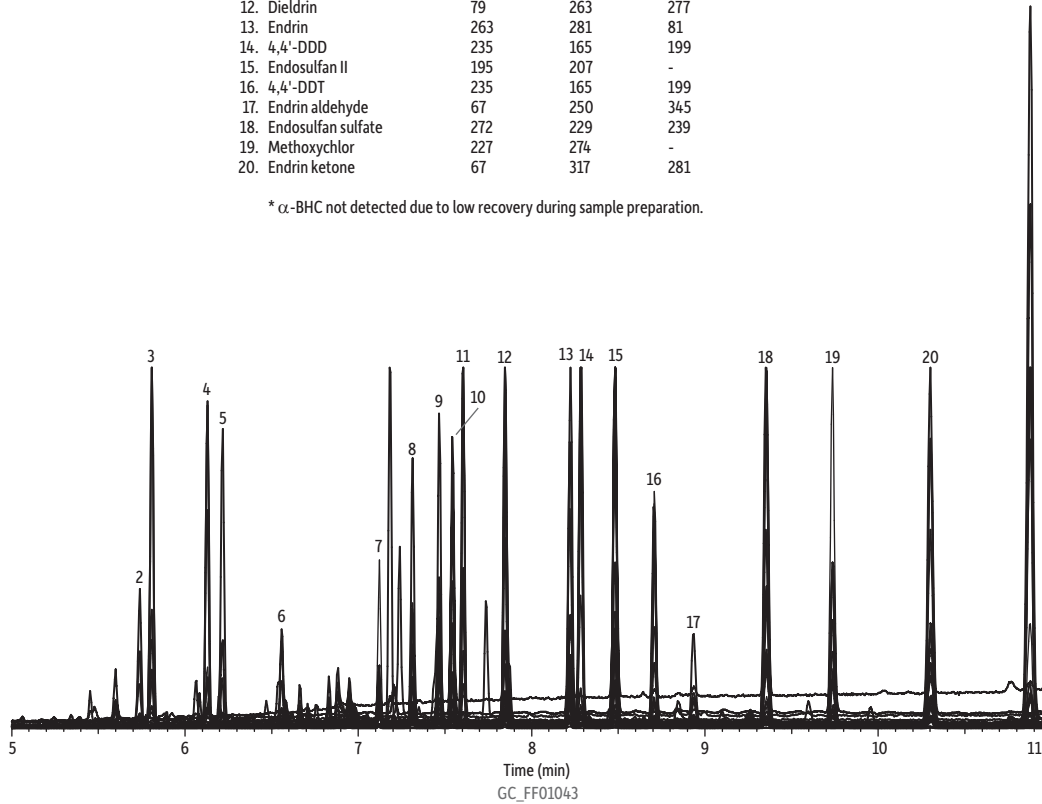


Chlorinated Pesticide Residues in Olive Oil Rtx-CLPesticides2

Peaks	Quant. ion	Qual. ion 1	Qual. ion 2
1. α -BHC*	219	181	109
2. γ -BHC	219	181	109
3. β -BHC	219	181	109
4. δ -BHC	219	181	109
5. Heptachlor	272	237	100
6. Aldrin	263	293	220
7. Heptachlor epoxide	263	237	81
8. δ -Chlordane	272	237	65
9. α -Chlordane	272	237	65
10. Endosulfan I	195	207	241
11. 4,4'-DDE	246	318	176
12. Dieldrin	79	263	277
13. Endrin	263	281	81
14. 4,4'-DDD	235	165	199
15. Endosulfan II	195	207	-
16. 4,4'-DDT	235	165	199
17. Endrin aldehyde	67	250	345
18. Endosulfan sulfate	272	229	239
19. Methoxychlor	227	274	-
20. Endrin ketone	67	317	281

* α -BHC not detected due to low recovery during sample preparation.



Columns Rtx®-CLPesticides2 30 m, 0.25 mm ID, 0.20 μ m (cat.# 11323)
Sample Olive oil spiked with Organochlorine Pesticide Mix AB # 3 (cat.# 32415)
Conc.: 10 μ g/mL
Injection
Inj. Vol.: 1 μ L splitless (hold 0.5 min)
Liner: Single Taper w/Wool (cat.# 22286-200.1)
Inj. Temp.: 225 °C
Oven
Oven Temp.: 140 °C (hold 0.5 min) to 268 °C at 20 °C/min to 290 °C at 3 °C/min to 330 °C at 20 °C/min (hold 5 min)
Carrier Gas He, constant flow
Flow Rate: 1 mL/min
Detector MS
Mode: SIM
Transfer Line
Temp.: 320 °C
Ionization Mode: EI
Notes Extraction and dSPE Cleanup for Pesticide Residues in Olive Oil

Test sample: A 1.5 mL sample of commercially obtained virgin olive oil was spiked with a standard organochlorine pesticide mix. The spiked sample was processed as follows:
 1. Dilute with 1.5 mL hexane.
 2. Add 6 mL of acetonitrile (ACN).
 3. Mix for 30 minutes on a shaker.
 4. Allow layers to separate (approximately 20 minutes), then collect the top (ACN) layer.
 5. Repeat the liquid-liquid extraction (steps 2-4) and combine both ACN extract layers.
 6. Place 1 mL of the combined ACN extract in a 1.5 mL tube containing 150 mg magnesium sulfate and 50 mg PSA.
 7. Shake the tube for 2 minutes.
 8. Centrifuge at 3,000 U/min for approximately 5 minutes.
 9. Remove the top layer and inject directly into the gas chromatograph system.