Application Report 388

US EPA Method 608, 8081, OLM04.2 Organochlorine Pesticides on the SPB-608

This is the analysis of a 22-component standard containing 20 pesticides and 2 surrogate compounds commonly analyzed by US EPA Method 8081. The run conditions shown in this application were also used in a separate application to separate the same compounds on a 30 m x 0.25 mm I.D. x 0.25 µm SLB-5ms. Between both the SPB-608 and SLB-5ms, all 22 compounds were resolved, making the two columns a possible combination for the dual column analysis of pesticides by US EPA Method 8081.

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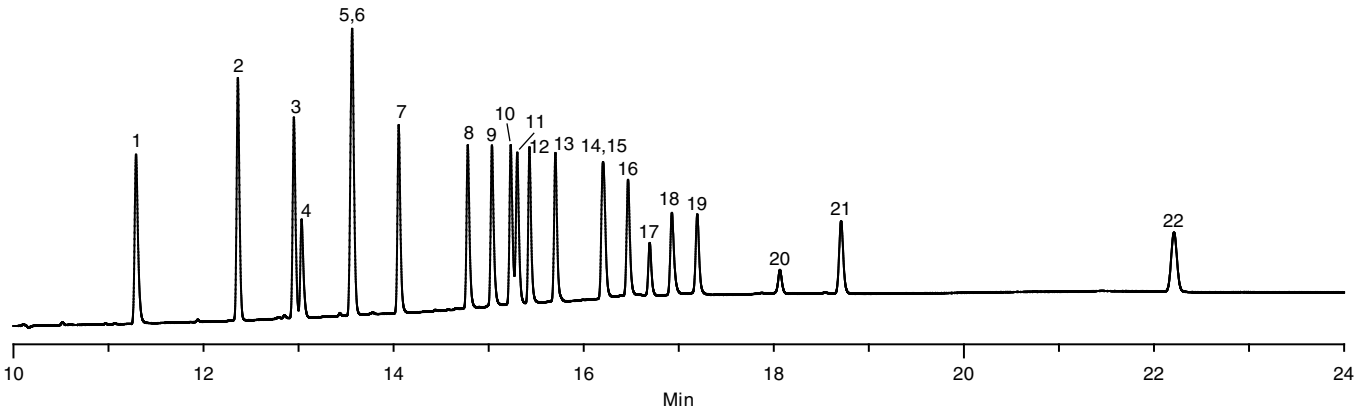
Acquisition System: 6249
Notebook Reference: 1569-016

Key Words

organochlorine pesticides, US EPA Method 8081, SPB-608, 46845-U, 24103-U



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Conditions

column: SPB-608, 30 m x 0.25 mm I.D., 0.25 µm (24103-U)
oven: 100 °C (2 min.), 15 °C/min. to 300 °C (5 min.)
inj.: 250 °C
det.: ECD, 300 °C
carrier gas: helium, 0.9 mL/min, constant flow
injection: 2.0 µL, splitless (0.75 min.)
liner: 4 mm I.D., single taper
sample: chlorinated pesticide standard (46845-U), diluted to 50 ppb in n-hexane

Peak IDs

1. 2,4,5,6-tetrachloro-m-xylene (surr.)
2. α-BHC
3. γ-BHC
4. β-BHC
5. δ-BHC
6. Heptachlor
7. Aldrin
8. Heptachlor epoxide
9. γ-chlordane
10. α-chlordane
11. Endosulfan I
12. 4,4′-DDE
13. Dieldrin
14. Endrin
15. 4,4′-DDD
16. Endosulfan II
17. 4,4′-DDT
18. Endrin aldehyde
19. Endosulfan sulfate
20. Methoxychlor
21. Endrin ketone
22. Decachlorobiphenyl (surr.)