

Application Report 18

US EPA Method 8141 Organophosphorus Pesticides on Equity-1701

Interest in organophosphorus pesticides, which are common in home and agriculture use, stems from their classification as acetylcholinesterase inhibitors. In this application, the Equity-1701 was used to analyze the 47 organophosphorus pesticides listed in US EPA Method 8141. The Equity-1701 yielded excellent peak shapes, as well as low background on a nitrogen-phosphorus detector (NPD.)

Key Words

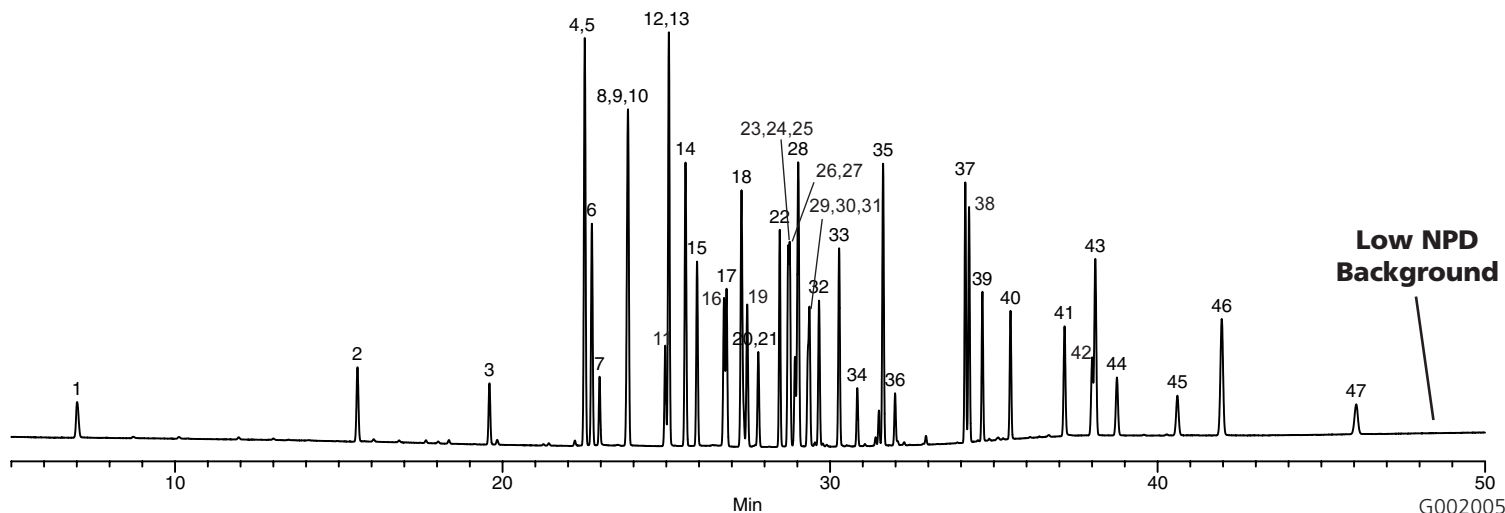
organophosphorus pesticides, Method 8141, Equity, 28372-U.

Author: J. Walbridge/K. Kiefer

Raw Data File Name:

178141\sig2BE15

Acquisition System: GC1776



Conditions

Column: Equity-1701, 30m x 0.25mm ID, 0.25µm
Cat. No.: 28372-U
Oven: 120°C (3 min) to 280°C @ 5°C/min
Inj.: 250°C
Det.: NPD, 300°C
Flow: Helium, constant flow, 25cm/sec @ 120°C
Injection: 2µL, splitless (0.5 min)
Liner: 4mm double taper
Sample: Custom mix diluted to 40ppm (hexane/acetone 85:15)

Peak IDs

1. Dichlorvos	25. Chlorpyrifos
2. Mevinphos	26. Methyl parathion
3. Trichlorfon	27. Trichloronate
4. Demeton O	28. Phosphamidon isomer
5. Thionazin	29. Malathion
6. Ethoprop	30. Fenitrothion
7. TEPP	31. Fenthion
8. Naled	32. Ethyl Parathion
9. Phorate	33. Chlorfenvinphos
10. Sulfotepp	34. Tokuthion
11. Demeton S	35. Crotoxyphos
12. Terbufos	36. Stirophos
13. Diazinon	37. Ethion
14. Fonophos	38. Bolstar
15. Dicrotophos	39. Carbophenothion
16. Disulfoton	40. Fensulfothion
17. Dichlorofenthion	41. Famphur
18. Monocrotophos	42. Leptophos
19. Chlorpyrifos methyl	43. EPN
20. Dimethoate	44. Phosmet
21. Phosphamidon isomer	45. Azinphos-methyl
22. Ronnel	46. Azinphos-ethyl
23. Merphos	47. Coumaphos
24. Aspon	