

■ Rtx®-CLPesticides



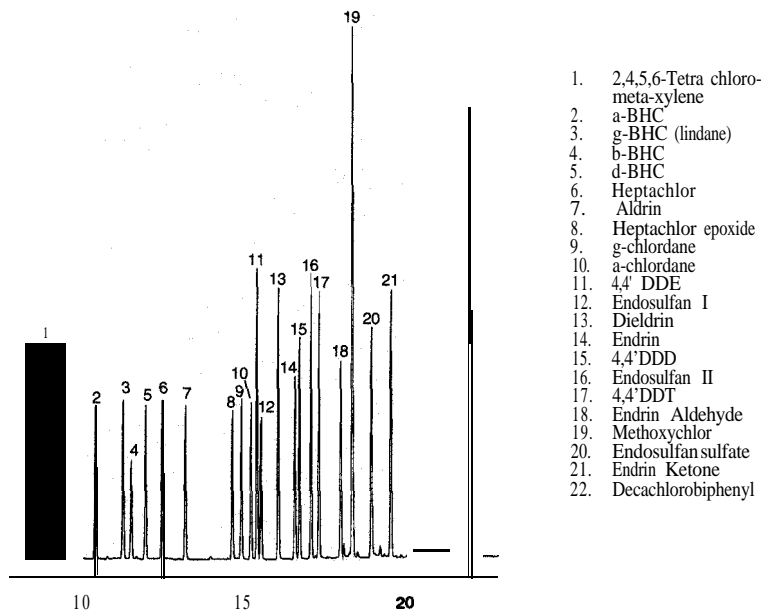
- Achieve baseline resolution of 22 chlorinated pesticides in EPA 8081 in under 25 minutes.
- Exceptional inertness for endrin, DDT, & methoxychlor.
- Exceeds performance criteria for EPA 8081,608, and CLP.

The Rtx-CLPesticides column is specially designed to overcome the coelutions and component breakdown problems typically found in the chlorinated pesticide analyses for EPA methods 8081, 608, and CLP. By achieving baseline resolution of the 22 target analytes, more accurate qualitative data can be obtained, providing reliable identification without GC-MS.

ECD column bleed is extremely low at temperatures greater than 300° C which is critical for baking out the column to remove high boiling compounds commonly found in pesticide/PCB extracts. An analysis time of under 25 minutes gives a 15% increase in throughput compared to other stationary phases. A pronounced change in peak elution compared to "1701" or phenyl phases make this the pesticide column of choice.

Applications: EPA methods 808 1,608, and CLP.

The 30m, 0.32mm ID, 0.50um Rtx-CLPesticides column provides baseline resolution of 22 chlorinated pesticides in less than 25 minutes.



1. 2,4,5,6-Tetra chloro-meta-xylene
2. a-BHC
3. g-BHC (lindane)
4. b-BHC
5. d-BHC
6. Heptachlor
7. Aldrin
8. Heptachlor epoxide
9. g-chlordane
10. a-chlordane
11. 4,4' DDE
12. Endosulfan I
13. Dieldrin
14. Endrin
15. 4,4' DDD
16. Endosulfan II
17. 4,4' DDT
18. Endrin Aldehyde
19. Methoxychlor
20. Endosulfan sulfate
21. Endrin Ketone
22. Decachlorobiphenyl

On column concentration: 16-160 pg Organochlorine Pesticide Mix AB#2 (cat.# 32292)
 Oven program: 30°C(1) 9.0C/min to 300°C (10)
 Injection port: Direct injection using a Uniliner sleeve (cat.# 20335) at 200°C
 Detector: ECD at 300°C with Anode Purge
 Dead time: 1.4 minutes
 Head pressure: 17.0 psi (constant)
 Flow rate: He @ 2.1 ml/min @ 120°C

WHAT YOU WANT WHEN YOU WANT IT

When Dr. Joe Comeau, Corporate Technical Director of ITS Environmental Laboratories, first saw the data generated by the Rtx-CLPesticides, his words were "**When can I get this column!**" Fortunately for both ITS Environmental and your lab, the answer is "Now."

Rtx@-CLPesticides (Fused Silica)

Stable to 340°C

ID	df(um)	temp. limits	30-Meter
0.25mm	0.25	-20 to 320/340C	11123
0.32mm	0.50	-20 to 310/330C	11139
0.53mm	0.50	-20 to 300/320C	11140

**Fast, efficient
analysis of
Organophosphorus
Pesticides in EPA
Method 8141A**

■ **Rtx-OPPesticides**

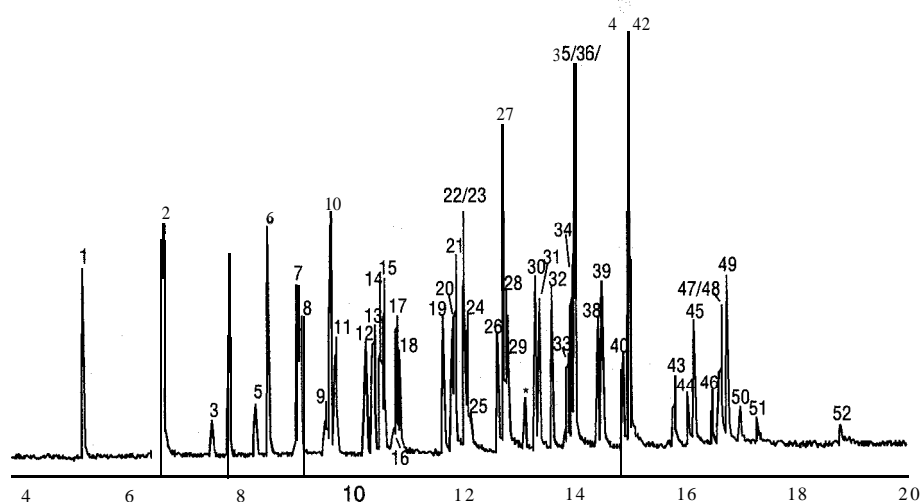
- Efficient analysis of 55 components in EPA Method 8141A. Includes: 49 organophosphorous pesticides, 4 internal standards, and 2 triazines.
- Quick analysis-less than 20 minute run time for 55 compounds.
- Flexible column configuration-0.32mm ID allows for direct injection with FPD or NPD detection and GC/MS confirmation.
- Maximum Temperature of 300°C.

The Rtx-OPPesticides column continues the “new age” of column development at Restek. Following in the wake of the Rtx-CLPesticides column, the Rtx-OPPesticides column offers the best resolution of 55 target analytes in EPA method 8141A in under 20 minutes. The 30m, 0.32mm, 0.5um configuration allows for the versatility of analyzing by direct injection with FPD or NPD detection as well as GC/M confirmation. Like the RtxCCLPesticides column, the Rtx-OPPesticides column has an extended upper temperature limit (330°C) allowing analysts to bake out high molecular weight contamination typically associated with organophosphorous pesticide samples. The ability to condition these columns to a higher temperature between runs has proven time and time again that analysts get more injections out of the Rtx-OPPesticides column.

If your lab is analyzing organophosphorous pesticides, you can increase your sample throughput and column lifetime by ordering the Rtx-OPPesticides column.

Applications: organophosphorous pesticides

The Rtx-OPPesticides column separates 43 organophosphorus pesticides at 100ppb in less than 20 minutes by FPD.



1. dichlorvos
2. hexamethylphosphoramide
3. trichlofon
4. mevinphos
5. demeton-S
6. zinophos
7. ethoprop
8. phorate
9. naled
10. sulfotepp
11. tributylphosphate (standard)
12. diazinon
13. terbufos
14. fonofos
15. TEPP
16. dioxation
17. disulfoton
18. demeton-0
19. dichlofenthion
20. chlorpyrifos methyl
21. dimethoate
22. dicrotophos
23. monocrotophos
24. ronnel
25. merphos
26. chlorpyrifos
27. aspon
28. fenthion
29. trichloronate
30. methyl parathion
31. malathion
32. fenitrothion
33. tokuthion
34. phosphomidon
35. chlofenvinphos
36. parathion
37. merphos oxone (merphos breakdown product)
38. stirohos
39. crot&yphos
40. bolstar
41. carbouhenthion
42. etbion
43. triphenylphosphate (standard)
44. leptophos
45. fensulfothion
46. tri-o-cresyl phosphate
47. phosmet
48. EPN
49. famfur
50. azinphos methyl
51. azinphos ethyl
52. coumaphos

* phosphomidon breakdown product

Nitrogen-containing compounds

- A. 1-bromo-2-nitrobenzene
- B. simazine
- C. atmzine

30m, 0.32mm ID, 0.50um Rtx-OPPesticides (a.# 11239). **Sample:** 1.0ul direct injection of a custom 8141A OP Pesticides mix. **Concentration:** 100ppb. **Oven temp.:** 100°C to 180°C @ 100C/min. (hold 2 min.) to 300°C @ 18C/min. (hold 2 min.). **Il& Det. temp.:** 250C **Detector:** FPD. **Flow rate:** 5cc/min, helium.

Rtx-OPPesticide (Fused Silica)

Stable to 330°C

ID	df (um)	temp. limits	30-Meter
0.32mm	0.50	-20 to 310C	11239

□ **GC Columns**