

## Restek innovation!

Speed Up & Simplify  
GC Method Development  
Restek's EZGC<sup>®</sup>  
Online Suite

[www.restek.com/ezgc](http://www.restek.com/ezgc)

**Rtx<sup>®</sup>-440 Columns** (fused silica)(midpolarity proprietary Crossbond<sup>®</sup> phase)

- General-purpose columns with unique selectivity for pesticides, PAHs, or other semivolatiles. Ideal for low/trace-level analyses.
- Low-bleed, high-resolution columns with unique selectivity.
- Wide temperature range: 20 °C to 340 °C.

ID	df	temp. limits	30-Meter cat.#
0.25 mm	0.25 μm	20 to 320/340 °C	12923
	0.50 μm	20 to 320/340 °C	12938
0.32 mm	0.25 μm	20 to 320/340 °C	12924
	0.50 μm	20 to 320/340 °C	12939
0.53 mm	0.50 μm	20 to 320/340 °C	12940

ID	df	temp. limits	20-Meter cat.#
0.18 mm	0.18 μm	20 to 320 °C	42902

**Organochlorine Pesticides by EPA Method 8081A on Rtx<sup>®</sup>-440 (dual column w/ Rtx<sup>®</sup>-CLPesticides2)**

**Column** Rtx<sup>®</sup>-440, 30 m, 0.32 mm ID, 0.50 μm (cat.# 12939)  
**Sample** Organochlorine pesticide mix AB #2, 8–80 μg/mL in ethyl acetate (cat.# 32292)  
 Chlorobenzilate, 1,000 μg/mL in methanol (cat.# 32211)  
 Hexachlorobenzene, 1,000 μg/mL in acetone (cat.# 32231)  
 Hexachlorocyclopentadiene, 1,000 μg/mL in methanol (cat.# 32232)  
 2,4'-DDD, 1,000 μg/mL in methanol (cat.# 32098)  
 2,4'-DDE, 1,000 μg/mL in methanol (cat.# 32099)  
 2,4'-DDT, 1,000 μg/mL in methanol (cat.# 32200)  
 2,4,5,6-Tetrachloro-*m*-xylene, 200 μg/mL in acetone (cat.# 32027)  
 Decachlorobiphenyl (BZ #209), 200 μg/mL in acetone (cat.# 32029)  
 Diallylate (*cis* & *trans*), 1,000 μg/mL in hexane (cat.# custom)  
 Isodrin, 1,000 μg/mL in hexane (cat.# custom)  
 Kepone, 1,000 μg/mL in hexane (cat.# custom)  
 Mirex, 1,000 μg/mL in hexane (cat.# custom)

**Injection**  
 Inj. Vol.: 1.0 μL splitless (hold 0.75 min)  
 Liner: Siltek<sup>®</sup> single taper (cat.# 20961-214.1)  
 Inj. Temp.: 275 °C  
**Oven**  
 Oven Temp.: 140 °C (hold 1 min) to 240 °C at 30 °C/min (hold 2 min) to 330 °C at 30 °C/min (hold 4 min)  
**Carrier Gas**  
 Hz, constant pressure  
 Linear Velocity: 51 cm/sec @ 140 °C  
**Detector**  
 ECD @ 330 °C  
**Instrument**  
 Shimadzu 2010 GC  
**Notes**  
 Rtx<sup>®</sup>-CLPesticides2 analysis shown in chromatogram GC\_EV00796.

**Peaks**

1. Hexachlorocyclopentadiene
2. 2,4,5,6-Tetrachloro-*m*-xylene (SS)
3. *cis*-Diallylate
4. *trans*-Diallylate
5. α-BHC
6. Hexachlorobenzene
7. γ-BHC
8. β-BHC
9. δ-BHC
10. Heptachlor
11. Aldrin
12. Isodrin
13. Heptachlor epoxide
14. 2,4'-DDE
15. *trans*-Chlordane
16. *cis*-Chlordane
17. Endosulfan I
18. 4,4'-DDE
19. 2,4'-DDD
20. Dieldrin
21. Chlorobenzilate
22. Endrin
23. 2,4'-DDT
24. 4,4'-DDD
25. Endosulfan II
26. Kepone
27. Endrin aldehyde
28. 4,4'-DDT
29. Endosulfan sulfate
30. Methoxychlor
31. Endrin ketone
32. Mirex
33. Decachlorobiphenyl (SS)

\* For information regarding the nomenclature used for *cis*-chlordane and *trans*-chlordane, visit [www.restek.com/chlordane-notice](http://www.restek.com/chlordane-notice)

