

# Volatile Organics

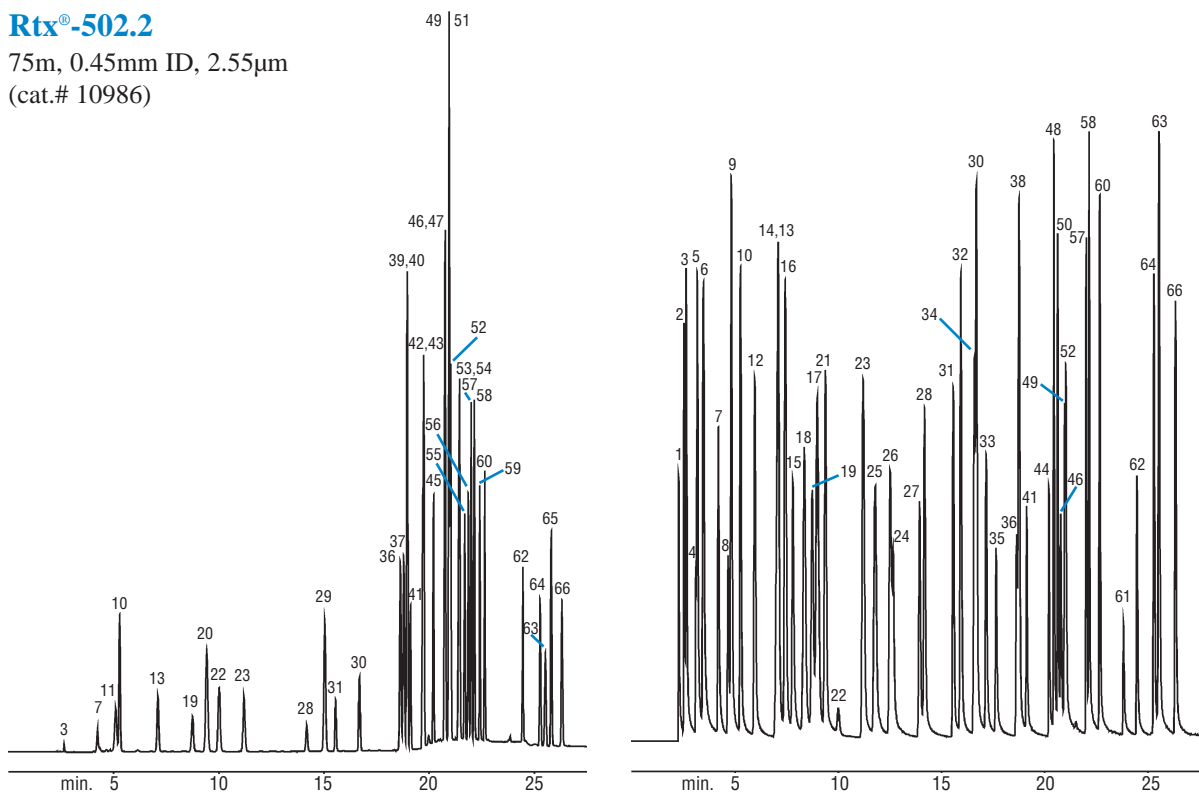
## EPA Method 8021A/502.2

### Rtx®-502.2

Confirmational column to the Rtx®-VGC.

### Rtx®-502.2

75m, 0.45mm ID, 2.55µm  
(cat.# 10986)



GC\_EV00419

- |                                       |                                  |
|---------------------------------------|----------------------------------|
| 1. dichlorodifluoromethane            | 34. 1,3-dichloropropane          |
| 2. chloromethane                      | 35. 1,2-dibromoethane            |
| 3. vinyl chloride                     | 36. chlorobenzene                |
| 4. bromomethane                       | 37. ethylbenzene                 |
| 5. chloroethane                       | 38. 1,1,1,2-tetrachloroethane    |
| 6. trichlorofluoromethane             | 39. <i>m</i> -xylene             |
| 7. 1,1-dichloroethene                 | 40. <i>p</i> -xylene             |
| 8. allyl chloride                     | 41. 1-chloro-2-fluorobenzene(SS) |
| 9. methylene chloride                 | 42. <i>o</i> -xylene             |
| 10. <i>trans</i> -1,2-dichloroethene  | 43. styrene                      |
| 11. methyl <i>tert</i> -butyl ether   | 44. bromoform                    |
| 12. 1,1-dichloroethane                | 45. isopropylbenzene             |
| 13. <i>cis</i> -1,2-dichloroethene    | 46. bromobenzene                 |
| 14. 2,2-dichloropropane               | 47. <i>n</i> -propylbenzene      |
| 15. bromochloromethane                | 48. 1,1,2,2-tetrachloroethane    |
| 16. chloroform                        | 49. 2-chlorotoluene              |
| 17. carbon tetrachloride              | 50. 1,2,3-trichloropropane       |
| 18. 1,1,1-trichloroethane             | 51. 1,3,5-trimethylbenzene       |
| 19. 1,1-dichloropropene               | 52. 4-chlorotoluene              |
| 20. benzene                           | 53. <i>tert</i> -butylbenzene    |
| 21. 1,2-dichloroethane                | 54. 1,2,4-trimethylbenzene       |
| 22. fluorobenzene (SS)                | 55. <i>sec</i> -butylbenzene     |
| 23. trichloroethene                   | 56. <i>p</i> -isopropyltoluene   |
| 24. dibromomethane                    | 57. 1,3-dichlorobenzene          |
| 25. 1,2-dichloropropane               | 58. 1,4-dichlorobenzene          |
| 26. bromodichloromethane              | 59. <i>n</i> -butylbenzene       |
| 27. 1-bromo-2-chloroethane (SS)       | 60. 1,2-dichlorobenzene          |
| 28. <i>cis</i> -1,3-dichloropropene   | 61. 1,2-dibromo-3-chloropropane  |
| 29. toluene                           | 62. 2-bromo-1-chlorobenzene (SS) |
| 30. tetrachloroethene                 | 63. hexachlorobutadiene          |
| 31. <i>trans</i> -1,3-dichloropropene | 64. 1,2,4-trichlorobenzene       |
| 32. 1,1,2-trichloroethane             | 65. naphthalene                  |
| 33. dibromochloromethane              | 66. 1,2,3-trichlorobenzene       |

Primary column: 75m, 0.45mm ID, 2.55µm Rtx®-VGC (cat.# 19409)  
 Confirmation column: 75m, 0.45mm ID, 2.55µm Rtx®-502.2 (cat.# 10986)  
 Conc.: 10ppb in 5mL of RO water  
 Concentrator: Tekmar LSC3100 Purge and Trap  
 Trap: Vocarb 3000  
 Purge: 11 min. @ 40mL/min.  
 Dry purge: 1 min. @ 40mL/min.  
 Desorb preheat: 245°C  
 Desorb: 250°C for 2 min.  
 Bake: 260°C for 8 min.  
 Interface: direct connection from concentrator to column  
 Transfer line: Siltek 0.32mm fused silica transfer line direct to columns w/ Press-Tight "Y" connector

Gas chromatograph: Finnigan 9001  
 Carrier gas: helium @ ~10 mL/min. constant pressure  
 Adjust dichlorodifluoromethane to a retention time of 2.28 min. @ 50°C on the Rtx®-VGC column.  
 Oven temp.: 50°C (hold 2 min.) to 70 @ 2°C/min. to 130 @ 9°C/min. to 200 @ 40°C/min. (final hold 5 min.)

Detectors: µGold Tandem PID/Hall 2000  
 PID: makeup 7mL/min., purge 7mL/min., set @ 0.35mV base temp 200°C.  
 ELCD Hall 2000: RxnGas 25mL/min., RxnTemp. 940°C, Propanol Flow 470µL/min.

Acknowledgement: Finnigan 9001 GC, µGold Tandem Photoionization/HALL® 2000 Electrolytic Conductivity Detector provided courtesy of Thermo Finnigan GC & GC/MS Division, 2215 Grand Avenue Pkwy, Austin, Texas 78728