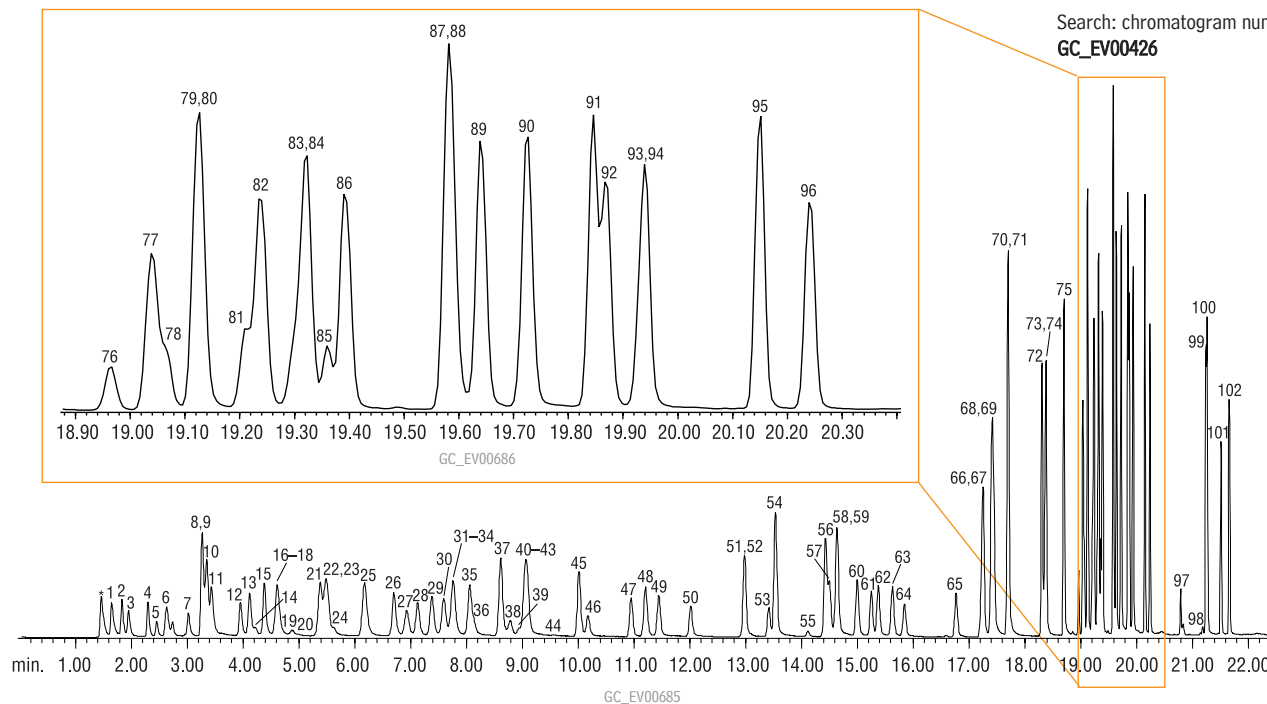


Volatile Organics US EPA Method 8260 (80ppb Standard) Rtx®-VMS

for **more info**EPA Method 8240 chromatograms
www.restek.com/chromatogramsSearch: chromatogram number
GC_EV00426

Column: Rtx®-VMS, 30m, 0.25mm ID, 1.4µm (cat.# 19915)
Sample: Calibration, internal standard, surrogate standard mixes (cat.# 30475B, 30465, 30006, 30240, 30074)

Purge and trap conditions:**O.I. Analytical 4560 with 4551A Autosampler**

Trap: #10 (Tenax/silica gel/carbon molecular sieve)
Purge time: 11 min.
Purge flow rate: 38mL/min.
Desorb flow rate: 32mL/min.
Desorb time: 1.0 min.
Bake time: 10 min.
Sample size: 10mL
Water management: 110°C purge, 0°C desorb, 240°C bake
Split ratio: 1:25

Temperatures:

Sample: 40°C
Trap: 20°C purge, 190°C desorb, 210°C bake

6-Port valve: 110°C
Transfer line: 110°C
Sparge mount: 45°C
Desorb preheat: 150°C
Valve manifold: 50°C
Other conditions: pre-purge, pre-heat, dry purge OFF

Chromatography:

Inj. temp.: 250°C
Carrier gas: helium, constant flow
Flow rate: 1.3 mL/min.
Dead time: 1.47 min. @ 35°C
Oven temp.: 35°C (hold 7 min.) to 90°C @ 4°C/min. (no hold) to 220°C @ 45°C/min. (hold 1 min.).

Det.: Agilent 5971A GC/MS
Transfer line temp.: 280°C
Scan range: 35-260amu
Tune: PFTBA/BFB

restek
innovation!

Good choice for alcohols & oxygenates!

free literature

Analysis of Trace Oxygenates in Petroleum-Contaminated Wastewater, Using Purge-and-Trap/GC/MS (US EPA Methods 5030B & 8260)

This 8-page note describes a practical, effective approach to monitoring oxygenates in wastewater. We evaluated the Rtx®-VMS stationary phase for oxygenates recovery, adjusted purge and trap conditions to increase responses for oxygenates, and optimized GC conditions to eliminate coelutions of ion-sharing analytes. The result is a sensitive, accurate analysis for gasoline oxygenates in wastewater, in the presence of much higher total gasoline content.

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lit. cat.# 59856

- | | | | |
|---|-------------------------------------|---------------------------------------|---|
| *carbon dioxide | 26. <i>cis</i> -1,2-dichloroethene | 52. 2-chloroethyl vinyl ether | 78. <i>cis</i> -1,4-dichloro-2-butene |
| 1. dichlorodifluoromethane | 27. 2,2-dichloropropane | 53. toluene-d8 | 79. 1,4-dichlorobutane |
| 2. chloromethane | 28. bromochloromethane | 54. toluene | 80. <i>n</i> -propylbenzene |
| 3. vinyl chloride | 29. chloroform | 55. 2-nitropropane | 81. 1,1,2,2-tetrachloroethane |
| 4. bromomethane | 30. carbon tetrachloride | 56. tetrachloroethene | 82. 2-chlorotoluene |
| 5. chloroethane | 31. tetrahydrofuran | 57. 2-bromo-1-chloropropane | 83. 1,2,3-trichloropropane |
| 6. trichlorofluoromethane | 32. methyl acrylate | 58. 4-methyl-2-pentanone | 84. 1,3,5-trimethylbenzene |
| 7. diethylether | 33. 1,1,1-trichloroethane | 59. <i>trans</i> -1,3-dichloropropene | 85. <i>trans</i> -1,4-dichloro-2-butene |
| 8. 1,1-dichloroethene | 34. dibromofluoromethane | 60. 1,1,2-trichloroethane | 86. 4-chlorotoluene |
| 9. carbon disulfide | 35. 1,1-dichloropropene | 61. ethyl methacrylate | 87. <i>tert</i> -butylbenzene |
| 10. Freon® 113 | 36. 2-butanone | 62. dibromochloromethane | 88. pentachloroethane |
| 11. iodomethane | 37. benzene | 63. 1,3-dichloropropane | 89. 1,2,4-trimethylbenzene |
| 12. allyl chloride | 38. propionitrile | 64. 1,2-dibromoethane | 90. <i>sec</i> -butylbenzene |
| 13. methylene chloride | 39. methacrylonitrile | 65. 2-hexanone | 91. <i>p</i> -isopropyltoluene |
| 14. acetone | 40. 1,2-dichloroethane-d4 | 66. chlorobenzene-d5 | 92. 1,3-dichlorobenzene |
| 15. <i>trans</i> -1,2-dichloroethene | 41. pentafluorobenzene | 67. chlorobenzene | 93. 1,4-dichlorobenzene-d4 |
| 16. methyl-d3- <i>tert</i> -butyl-ether | 42. <i>tert</i> -amyl-methyl ether | 68. ethylbenzene | 94. 1,4-dichlorobenzene |
| 17. methyl acetate | 43. 1,2-dichloroethane | 69. 1,1,1,2-tetrachloroethane | 95. <i>n</i> -butylbenzene |
| 18. methyl- <i>tert</i> -butyl-ether | 44. isobutyl alcohol | 70. <i>m</i> -xylene | 96. 1,2-dichlorobenzene |
| 19. <i>tert</i> -butyl alcohol | 45. trichloroethene | 71. <i>p</i> -xylene | 97. 1,2-dibromo-3-chloropropane |
| 20. acetonitrile | 46. 1,4-difluorobenzene | 72. <i>o</i> -xylene | 98. nitrobenzene |
| 21. diisopropyl ether | 47. dibromomethane | 73. bromoform | 99. hexachlorobutadiene |
| 22. chloroprene | 48. 1,2-dichloropropane | 74. styrene | 100. 1,2,4-trichlorobenzene |
| 23. 1,1-dichloroethane | 49. bromodichloromethane | 75. isopropylbenzene | 101. naphthalene |
| 24. acrylonitrile | 50. methyl methacrylate | 76. 4-bromo-1-fluorobenzene (SS) | 102. 1,2,3-trichlorobenzene |
| 25. ethyl- <i>tert</i> -butyl ether | 51. <i>cis</i> -1,3-dichloropropene | 77. bromobenzene | |

Acknowledgments: Purge & trap courtesy of O.I. Analytical.