

## Semivolatiles

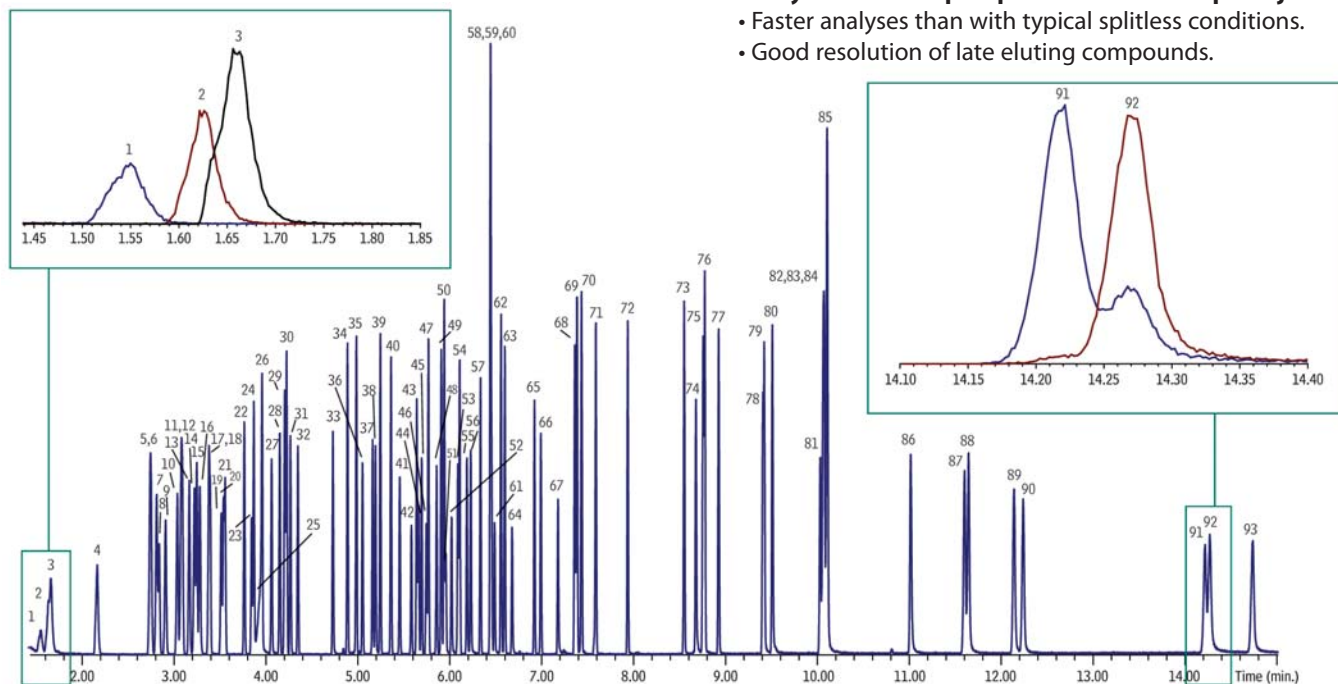
## EPA Method 8270

## Rxi®-5Sil MS (Split Injection)

## Peaks

1. 1,4-Dioxane	24. 2,4-Dimethylphenol	48. 3-Nitroaniline	71. Carbazole
2. N-Nitrosodimethylamine	25. Benzoic acid	49. Acenaphthene-d10 (IS)	72. di- <i>n</i> -Butyl phthalate
3. Pyridine	26. Bis(2-chloroethoxy)methane	50. Acenaphthene	73. Fluoranthene
4. 2-Fluorophenol (SS)	27. 2,4-Dichlorophenol	51. 2,4-Dinitrophenol	74. Benzidine
5. Phenol-d6 (SS)	28. 1,2,4-Trichlorophenol	52. 4-Nitrophenol	75. Pyrene-d10 (SS)
6. Phenol	29. Naphthalene-D8 (IS)	53. 2,4-Dinitrotoluene	76. Pyrene
7. Aniline	30. Naphthalene	54. Dibenzofuran	77. <i>p</i> -Terphenyl-d14 (SS)
8. Bis(2-chloroethyl) ether	31. 4-Chloroaniline	55. 2,3,5,6-Tetrachlorophenol	78. 3,3'-Dimethylbenzidine
9. 2-Chlorophenol	32. Hexachlorobutadiene	56. 2,3,4,6-Tetrachlorophenol	79. Butyl benzyl phthalate
10. 1,3-Dichlorobenzene	33. 4-Chloro-3-methylphenol	57. Diethyl Phthalate	80. Bis(2-ethylhexyl) adipate
11. 1,4-Dichlorobenzene-D4 (IS)	34. 2-Methylnaphthalene	58. 4-Chlorophenyl phenyl ether	81. 3,3'-Dichlorobenzidine
12. 1,4-Dichlorobenzene	35. 1-Methylnaphthalene	59. Fluorene	82. Benz[ <i>a</i> ]anthracene
13. Benzyl Alcohol	36. Hexachlorocyclopentadiene	60. 4-Nitroaniline	83. Bis(2-ethylhexyl)phthalate
14. 1,2-Dichlorobenzene	37. 2,4,6-Trichlorophenol	61. 4,6-Dinitro-2-methylphenol	84. Chrysene-D12 (IS)
15. 2-Methylphenol	38. 2,4,5-Trichlorophenol	62. N-Nitrosodiphenylamine (Diphenylamine)	85. Chrysene
16. Bis(2-chloroisopropyl) ether	39. 2-Fluorobiphenyl (SS)	63. 1,2-Diphenylhydrazine (as Azobenzene)	86. Di- <i>n</i> -octyl phthalate
17. 4-Methylphenol/3-Methylphenol	40. 2-Chloronaphthalene	64. 2,4,6-Tribromophenol (SS)	87. Benzo[ <i>b</i> ]fluoranthene
18. N-Nitrosodi-N-propylamine	41. 2-Nitroaniline	65. 4-Bromophenyl phenyl ether	88. Benzo[ <i>k</i> ]fluoranthene
19. Hexachloroethane	42. 1,4-Dinitrobenzene	66. Hexachlorobenzene	89. Benzo[ <i>a</i> ]pyrene
20. Nitrobenzene-D5 (SS)	43. Dimethyl phthalate	67. Pentachlorophenol	90. Perylene-D12 (IS)
21. Nitrobenzene	44. 1,3-Dinitrobenzene	68. Phenanthrene-D10 (IS)	91. Dibenz[ <i>a,h</i> ]anthracene
22. Isophorone	45. 2,6-Dinitrotoluene	69. Phenanthrene	92. Indeno[1,2,3- <i>cd</i> ]pyrene
23. 2-Nitrophenol	46. 1,2-Dinitrobenzene	70. Anthracene	93. Benzo[ <i>ghi</i> ]perylene
	47. Acenaphthylene		

Great peak shape for early eluters—  
even with 80°C initial oven temp!



GC\_EV1182

## Analyze more samples per shift with fast split injection

- Faster analyses than with typical splitless conditions.
- Good resolution of late eluting compounds.

<b>Column</b>	Rxi®-5Sil MS, 30 m, 0.25 mm ID, 0.25 $\mu$ m (cat.# 13623)
<b>Sample</b>	8270 MegaMix® (cat.# 31850) Benzoic acid (cat.# 31879) 8270 Benzidines Mix (cat.# 31852) Acid Surrogate Mix (4/89 SOW) (cat.# 31025) 1,4-dioxane (cat.# 31853) Revised B/N Surrogate Mix (cat.# 31887) SV Internal Standard Mix (cat.# 31206)
<b>Diluent:</b>	Methylene chloride
<b>Conc.:</b>	40 $\mu$ g/mL (4 ng on-column)
<b>Injection</b>	
<b>Inj. Vol.:</b>	1.0 $\mu$ L split (split ratio 10:1)
<b>Liner:</b>	4mm Split Precision® Liner w/ Semivolatiles Wool (cat.# 21023-231.5)
<b>Inj. Temp.:</b>	270 °C
<b>Split Vent</b>	
<b>Flow Rate:</b>	60 mL/min.

<b>Oven</b>	
<b>Oven Temp:</b>	80 °C (hold 1 min.) to 280 °C at 25 °C/min. to 320 °C at 5 °C/min.
<b>Carrier Gas</b>	He, constant flow
<b>Flow Rate:</b>	1.2 mL/min.
<b>Detector</b>	MS
<b>Mode:</b>	Scan
<b>Transfer</b>	
<b>Line Temp.:</b>	280 °C
<b>Analyzer Type:</b>	Quadrupole
<b>Source Temp.:</b>	250 °C
<b>Quad Temp.:</b>	150 °C
<b>Tune Type:</b>	DFTPP
<b>Ionization Mode:</b>	EI
<b>Scan Range:</b>	35-400 amu
<b>Instrument</b>	Agilent 7890A GC & 5975C MSD