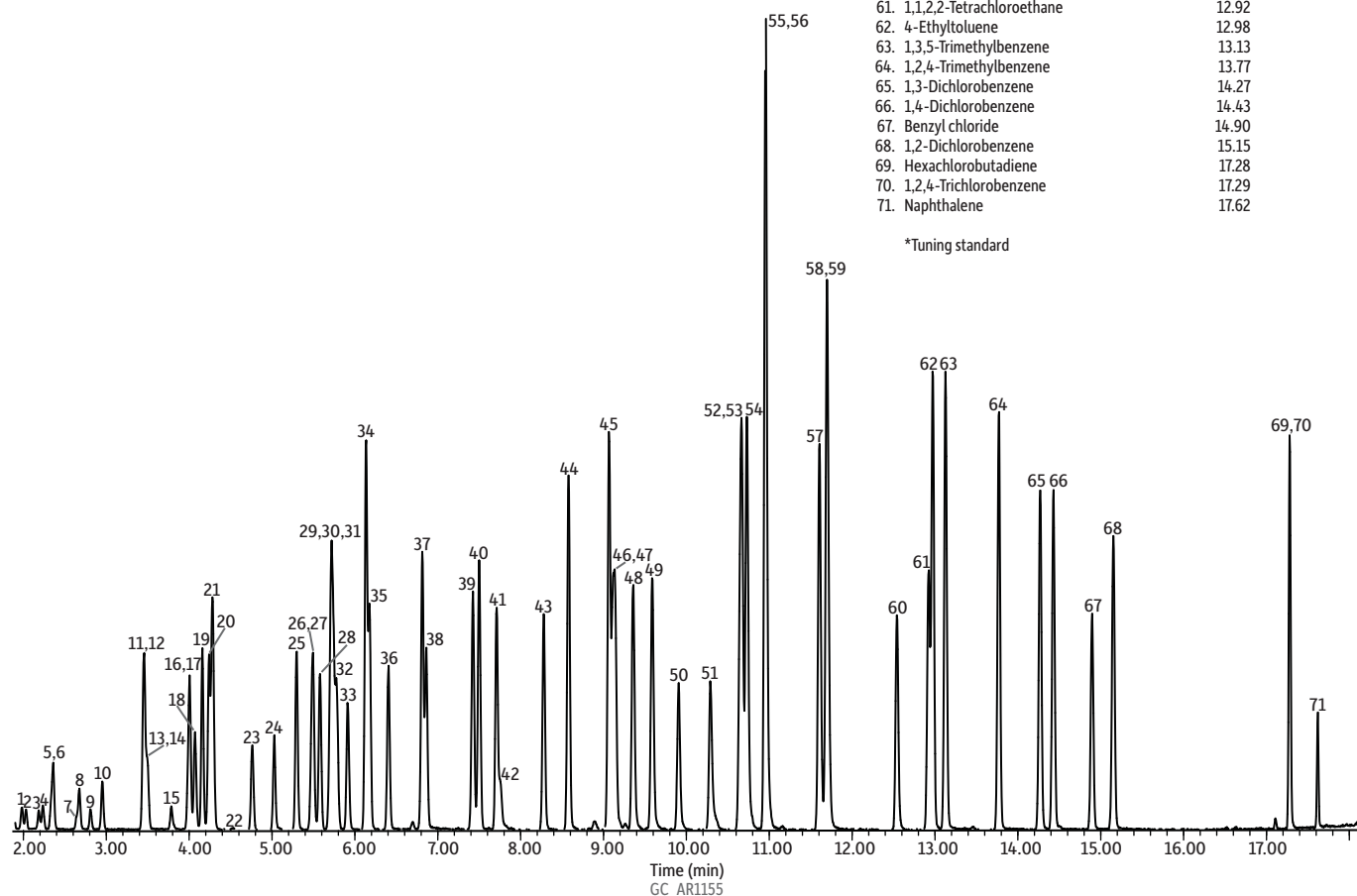


TO-15 65 Component Mix on Rtx®-VMS (30 m, 1.2 mL/min)

Peaks	Retention Time (min)	Peaks	Retention Time (min)	Peaks	Retention Time (min)
1. Propylene	1.98	21. Hexane	4.24	41. Methyl methacrylate	7.71
2. Dichlorodifluoromethane (Freon® 12)	2.03	22. Methyl <i>tert</i> -butyl ether (MTBE)	4.28	42. 1,4-Dioxane	7.76
3. 1,2-Dichlorotetrafluoroethane (Freon® 114)	2.19	23. 1,1-Dichloroethane	4.76	43. <i>cis</i> -1,3-Dichloropropene	8.28
4. Chloromethane	2.24	24. Vinyl acetate	5.03	44. Toluene	8.58
5. Vinyl chloride	2.34	25. <i>cis</i> -1,2-Dichloroethene	5.30	45. Tetrachloroethene	9.07
6. 1,3-Butadiene	2.36	26. Cyclohexane	5.48	46. 4-Methyl-2-pentanone (MIBK)	9.12
7. Acetaldehyde (contaminant)	2.64	27. Bromochloromethane (IS)	5.49	47. <i>trans</i> -1,3-Dichloropropene	9.15
8. Bromomethane	2.68	28. Chloroform	5.58	48. 1,1,2-Trichloroethane	9.36
9. Chloroethane	2.81	29. Carbon tetrachloride	5.70	49. Dibromochloromethane	9.59
10. Trichlorofluoromethane (Freon® 11)	2.96	30. Ethyl acetate	5.72	50. 1,2-Dibromoethane	9.91
11. 1,1-Dichloroethene	3.45	31. Tetrahydrofuran	5.74	51. 2-Hexanone (MBK)	10.29
12. Ethanol	3.46	32. 1,1,1-Trichloroethane	5.78	52. Chlorobenzene- <i>d</i> 5 (IS)	10.65
13. Carbon disulfide	3.46	33. 2-Butanone (MEK)	5.91	53. Chlorobenzene	10.67
14. 1,1,2-Trichlorotrifluoroethane (Freon® 113)	3.50	34. Heptane	6.13	54. Ethylbenzene	10.73
15. Acrolein	3.79	35. Benzene	6.18	55. <i>m</i> -Xylene	10.96
16. Isopropyl alcohol	3.99	36. 1,2-Dichloroethane	6.41	56. <i>p</i> -Xylene	10.96
17. Methylene chloride	4.01	37. Trichloroethylene	6.82	57. <i>o</i> -Xylene	11.61
18. Acetone	4.07	38. 1,4-Difluorobenzene (IS)	6.86	58. Styrene	11.70
19. <i>trans</i> -1,2-Dichloroethene	4.16	39. 1,2-Dichloropropane	7.43	59. Bromoform	11.71
20. Acetonitrile (contaminant)	4.24	40. Bromodichloromethane	7.50	60. 4-Bromofluorobenzene*	12.54



Column Rtx®-VMS, 30 m, 0.25 mm ID, 1.40 µm (cat.# 19915)
Sample TO-15 65 component mix (cat.# 34436)
 TO-14A internal standard/tuning mix (cat.# 34408)
Diluent: Nitrogen
Conc.: 10.0 ppbv 400 mL injection
Injection Direct
Oven
Oven Temp.: 32 °C (hold 1 min) to 150 °C at 8 °C/min to 230 °C at 33 °C/min
Carrier Gas He, constant flow
Flow Rate: 1.2 mL/min
Linear Velocity: 40 cm/sec @ 32 °C
Detector MS
Mode: Scan
Scan Program:

Group	Start Time (min)	Scan Range (amu)	Scan Rate (scans/sec)
1	0	35-250	3.32

Transfer Line Temp.: 230 °C

Analyzer Type: Quadrupole
Source Temp.: 230 °C
Quad Temp.: 150 °C
Electron Energy: 69.9 eV
Solvent Delay
Time: 1.0 min
Tune Type: BFB
Ionization Mode: EI
Preconcentrator Nutech 8900 DS
Trap 1 Settings
Type/Sorbent : Glass beads
Cooling temp: -155 °C
Preheat temp: 5 °C
Preheat time: 0 sec
Desorb temp: 20 °C
Desorb flow: 5 mL/min
Desorb time: 360 sec
Bakeout temp: 200 °C
Flush flow: 120 mL/min
Flush time: 60 sec
Sweep flow: 120 mL/min
Sweep time: 60 sec

Trap 2 Settings
Type/Sorbent: Tenax®
Cooling temp: -35 °C
Desorb temp: 190 °C
Desorb time: 30 sec
Bakeout temp: 200 °C
Bakeout time: 10 sec
Cryofocuser
Cooling temp: -160 °C
Inject time: 140 sec
Internal Standard
Purge flow: 100 mL/min
Purge time: 6 sec
Vol.: 100 mL
ISTD flow: 100 mL/min
Standard
Size: 200 mL
Purge flow: 100 mL/min
Purge time: 6 sec
Sample flow: 100 mL/min
Instrument HP6890 GC & 5973 MSD
Acknowledgement Nutech