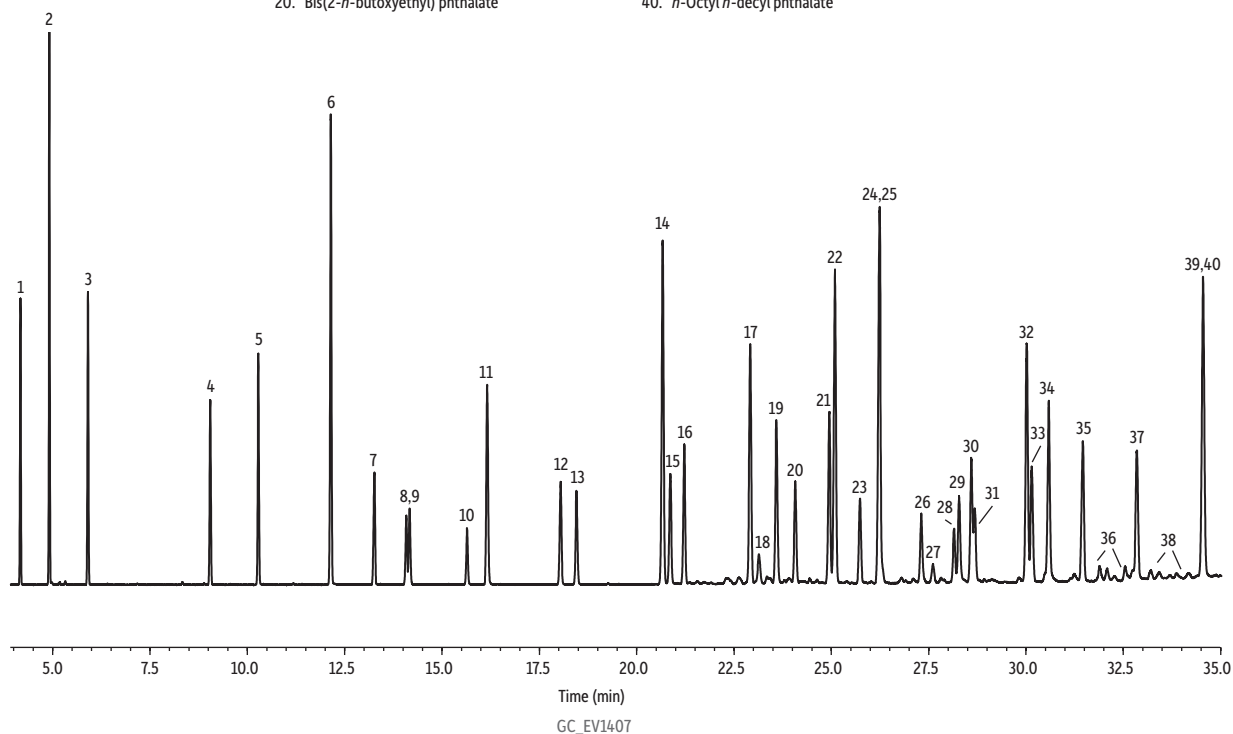


Phthalates (50 µg/mL) on Rtx-440 (Extended List, Full Scan Mode)

- | | |
|---|--|
| <p>Peaks</p> <ol style="list-style-type: none"> 1. Dimethyl phthalate 2. Dimethyl isophthalate 3. Diethyl phthalate 4. Benzyl benzoate 5. Diisobutyl phthalate 6. Di-<i>n</i>-butyl phthalate 7. Bis(2-methoxyethyl) phthalate 8. Bis[4-methyl-2-pentyl] phthalate isomer 1 9. Bis[4-methyl-2-pentyl] phthalate isomer 2 10. Bis(2-ethoxyethyl) phthalate 11. Di-<i>n</i>-pentyl phthalate 12. Butyl cyclohexyl phthalate 13. Butyl 2-ethylhexyl phthalate 14. Di-<i>n</i>-hexyl phthalate 15. Butyl octyl phthalate 16. Butyl benzyl phthalate 17. Hexyl-2-ethylhexyl phthalate 18. Butyl isodecyl phthalate 19. Bis(2-ethylhexyl)hexahydro phthalate 20. Bis(2-<i>n</i>-butoxyethyl) phthalate | <p>Peaks</p> <ol style="list-style-type: none"> 21. Dicyclohexyl phthalate 22. Bis(2-ethylhexyl) phthalate 23. Butyl-<i>n</i>-decyl phthalate 24. Diphenyl phthalate 25. Bis(4-methylcyclohexyl) phthalate isomer 1 26. Bis(4-methylcyclohexyl) phthalate isomer 2 27. Hexyl isodecyl phthalate 28. Benzyl 2-ethylhexyl phthalate 29. Bis(4-methylcyclohexyl) phthalate isomer 3 30. Bis(2-ethylhexyl) isophthalate 31. Bis(2-(ethoxyethoxy)ethyl) phthalate 32. Di-<i>n</i>-octyl phthalate 33. <i>n</i>-Hexyl decyl phthalate 34. Diphenyl isophthalate 35. Dibenzyl phthalate 36. Diisononyl phthalate 37. Di-<i>n</i>-octyl isophthalate 38. Diisodecyl phthalate 39. Dinonyl phthalate 40. <i>n</i>-Octyl <i>n</i>-decyl phthalate |
|---|--|



Column Rtx-440, 30 m, 0.25 mm ID, 0.25 µm (cat.# 12923)
Sample Phthalate standards mixture
 Benzyl benzoate (cat.# 31847)
 Diluent: Methylene chloride
 Conc.: 50 µg/mL (80 µg/mL for internal standard benzyl benzoate)
Injection
 Inj. Vol.: 1 µL split (split ratio 20:1)
 Liner: Premium 3.5 mm Precision liner w/wool (cat.# 23320.1)
 Inj. Temp.: 280 °C
 Split Vent Flow
 Rate: 3 mL/min
Oven
 Oven Temp.: 150 °C (hold 0.8 min) to 200 °C at 5 °C/min to 275 °C at 3 °C/min (hold 2 min)
Carrier Gas
 Linear Velocity: He, constant linear velocity
 48 cm/sec, 21.4 psi, 147.5 kPa @ 150 °C
Detector
 Mode: MS Scan

Scan Program:

Group	Start Time (min)	Scan Range (amu)	Scan Rate (scans/sec)
1	2.5	59-400	-

Transfer Line Temp.: 300 °C
 Analyzer Type: Quadrupole
 Source Temp.: 280 °C
 Electron Energy: 70 eV

Solvent Delay Time: 2.5 min
 Tune Type: PFTBA
 Ionization Mode: EI

Instrument Notes
 Shimadzu 2010 GC & QP2010+ MS
 The constant linear velocity of 48 cm/sec is equivalent to approximately 1.61 mL/min at 150 °C. The MS scan interval is 0.1 sec.

Acknowledgement
 The authors would like to thank Shimadzu Corporation for their consultation with the operation of the QP2010 Plus GC-MS instrument.