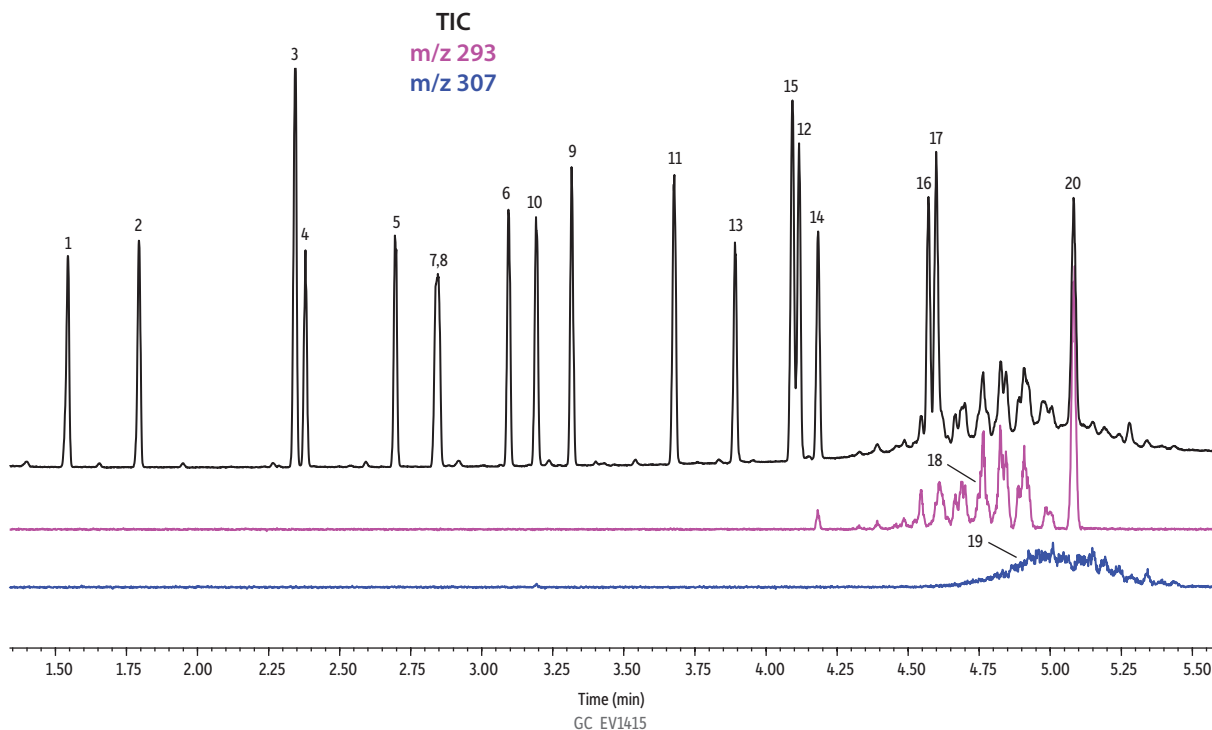


# EPA and EU Phthalates on Rtx®-50

- Peaks**
1. Dimethyl phthalate
  2. Diethyl phthalate
  3. Benzyl benzoate
  4. Diisobutyl phthalate
  5. Di-*n*-butyl phthalate
  6. Bis(2-methoxyethyl) phthalate
  7. Bis[4-methyl-2-pentyl] phthalate isomer 1
  8. Bis[4-methyl-2-pentyl] phthalate isomer 2
  9. Bis(2-ethoxyethyl) phthalate
  10. Di-*n*-pentyl phthalate

- Peaks**
11. Di-*n*-hexyl phthalate
  12. Butyl benzyl phthalate
  13. Hexyl-2-ethylhexyl phthalate
  14. Bis(2-butoxyethyl) phthalate
  15. Bis(2-ethylhexyl) phthalate
  16. Dicyclohexyl phthalate
  17. Di-*n*-octyl phthalate
  18. Diisononyl phthalate
  19. Diisodecyl phthalate
  20. Dinonyl phthalate



**Column** Rtx®-50, 30 m, 0.25 mm ID, 0.25 µm (cat.# 10523)  
**Sample** Benzyl benzoate (cat.# 31847)  
 EPA Method 8061A phthalate esters mixture (cat.# 33227)  
**Diluent:** Methylene chloride  
**Conc.:** 50.0 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.:** 200 °C (hold 0.5 min) to 320 °C at 30 °C/min (hold 1 min)  
**Carrier Gas** He, constant linear velocity  
**Linear Velocity:** 66.7 cm/sec, 39.5 psi, 272.3 kPa @ 200 °C  
**Detector** MS  
**Mode:** Scan

Scan Program:

Group	Start Time (min)	Scan Range (amu)	Scan Rate (scans/sec)
1	0.9	59-400	-

**Transfer Line**  
**Temp.:** 300 °C  
**Analyzer Type:** Quadrupole  
**Source Temp.:** 280 °C  
**Electron Energy:** 70 eV  
**Solvent Delay**  
**Time:** 0.9 min  
**Tune Type:** PFTBA  
**Ionization Mode:** EI  
**Instrument** Shimadzu 2010 GC & QP2010+ MS  
**Notes** The flow rate of 66.7 cm/sec is equivalent to 3 mL/min @ 200 °C.  
 The MS scan interval is 0.1 sec.

**Acknowledgement**

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