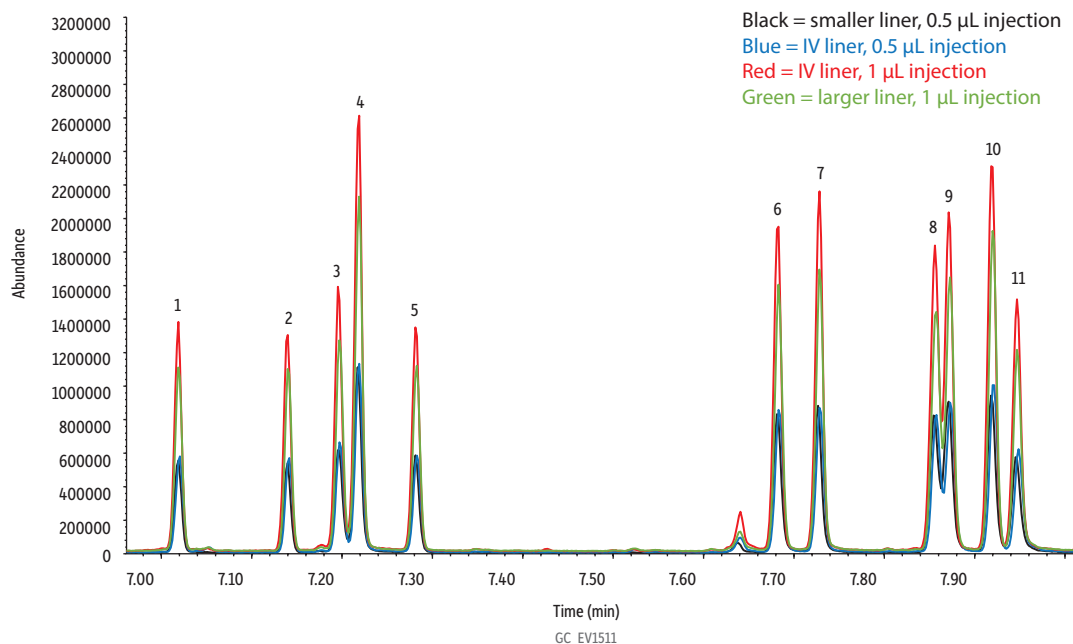


Comparison: Semivolatiles on Narrow-Bore Rxi-SVOCms - IV Liner Article Figure 4

Improved Peak Height and Peak Symmetry When Using an IV Liner



Peaks	tr (min)	Conc. (µg/mL)	Peaks	tr (min)	Conc. (µg/mL)
1. Tolclofos-methyl 57018-04-9	7.02	1	6. Fluoranthene 206-44-0	7.68	1
2. Pirimiphos methyl 29232-93-7	7.14	1	7. Methidathion 950-37-8	7.73	2
3. Di-n-butylphthalate 84-74-2	7.2	1	8. Pyrene-d10 1718-52-1	7.86	1
4. Malathion 121-75-5	7.22	2	9. Pyrene 129-00-0	7.87	1
5. Chlorpyrifos 2921-88-2	7.28	1	10. Prothiofos 34643-46-4	7.92	2
			11. Profenofos 41198-08-7	7.95	2

Column Rxi-SVOCms GC capillary column, 20 m, 0.15 mm ID, 0.15 µm (cat.# 46616)
Standard/Sample Method 525.2 semivolatiles mix (revised), acetone, 1 mL/ampul (cat.# 31899)
 Method 525.2 internal standard mix, 1000 µg/mL, acetone, 1 mL/ampul (cat.# 31825)
 Method 525.2 surrogate standard mix, 1000 µg/mL, acetone, 1 mL/ampul (cat.# 31826)
 Organophosphorus pesticide mix, European formulation, acetone, 1 mL/ampul (cat.# 32418)
Diluent: Acetone

Injection
Inj. Vol.: 0.5-1 µL splitless (hold 3 min)
Liner: Three Topaz single taper, splitless inlet liners with quartz wool and premium deactivation were compared. All were 78.5 mm long with a 6.5 mm OD and the following IDs: 2.0 mm (cat.# 23316); 3.0 mm (cat.# 27231); and 4.0 mm (cat.# 23303).

Inj. Temp.: 250 °C
Purge Flow: 15 mL/min
Oven
Oven Temp.: 45 °C (hold 0.5 min) to 260 °C at 30 °C/min to 330 °C at 4 °C/min

Carrier Gas
Flow Rate: He, constant flow
 0.84 mL/min
Linear Velocity: 40.807 cm/sec @ 45 °C
Dead Time: 0.82 min @ 45 °C

Detector
Mode: MS
Scan Program: Scan

Group	Start Time (min)	Scan Range (amu)	Scan Rate (scans/sec)
1	1.5	50-550	9.9

Transfer Line Temp.: 250 °C
Analyzer Type: Quadrupole
Source Type: Extractor
Source Temp.: 230 °C
Quad Temp.: 150 °C
Electron Energy: 929 eV
Solvent Delay Time: 1.5 min
Tune Type: PFTBA
Ionization Mode: EI
Instrument Agilent 7890A GC & 5975C MSD
Sample Preparation 2 µL of cat.# 31899, 31825, 31826 and 20 µL of cat.# 32418 were added to 1974 µL of acetone. Splitless injections were performed with a 10 µL SGE autosampler syringe (cat.# 24795).