

Application Report 16

Phthalate Esters on Equity-5

Phthalate esters are frequently listed as suspected endocrine disruptors, and the US EPA has included several on their list of priority pollutants. In this application, all 17 of the phthalate esters listed in US EPA Methods 8061A, 506 and 606 were separated on an Equity-5 column. These methods require confirmation on a second column or by GC/MS. The resolution and low bleed offered by the Equity-5 make it a good choice as the primary column for this method.

Key Words

phthalate, endocrine disruptors, Equity, Method 8061, 28089-U

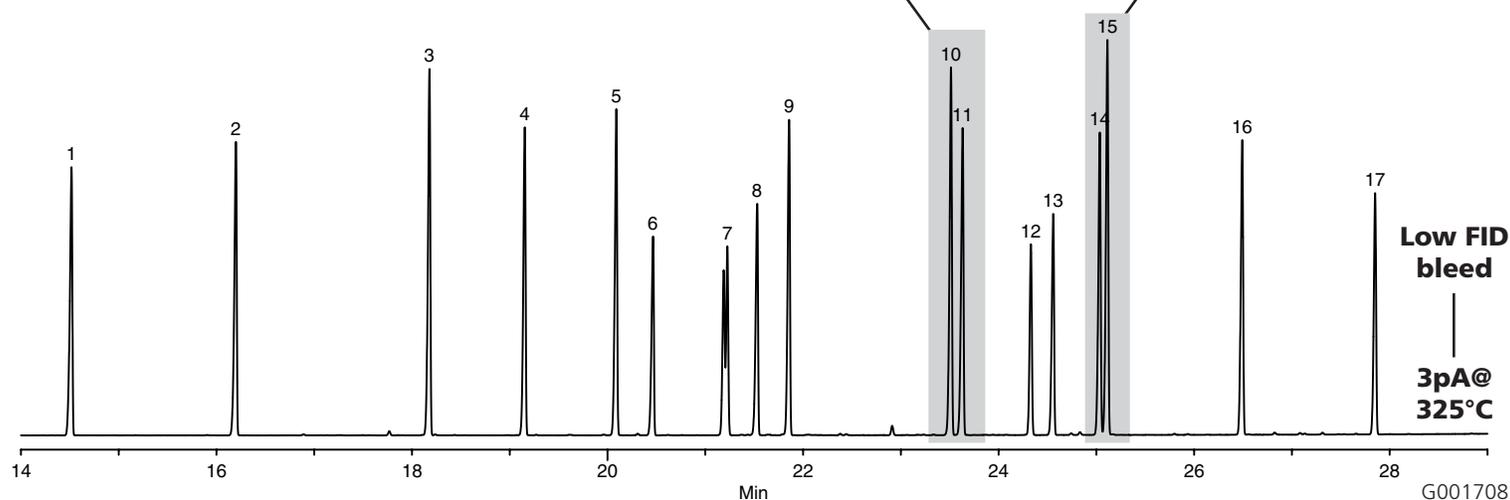
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Raw Data File Name:

C:\data\1\GS100App\frot0055.D
(HPCS53)

Acquisition System: GC 9499

Excellent peak shapes and resolution



Conditions

Column: Equity-5, 30m x 0.25mm ID, 0.25 μ m
Cat. No.: 28089-U
Oven: 40°C (1 min) to 325°C @ 10°C/min
Inj.: 250°C
Det.: FID, 325°C
Flow: Helium, Constant flow, 1.3mL/sec @ 40°C
Injection: 1.0 μ L, splitless (0.75 min)
Liner: Splitless, 4mm ID single taper
Sample: 50ng on-column of a custom phthalate ester mix

Peak IDs

1. Dimethyl phthalate
2. Diethyl phthalate
3. Benzyl benzoate
4. Diisobutyl phthalate
5. Dibutyl phthalate
6. Bis(2-methoxyethyl)phthalate
7. Bis(4-methyl-2-pentyl)phthalate isomers
8. Bis(2-ethoxyethyl)phthalate
9. Diamyl phthalate
10. Di-n-hexyl phthalate
11. Butyl benzyl phthalate
12. Hexyl-2-ethylhexyl phthalate
13. Bis(2-butoxyethyl)phthalate
14. Dicyclohexyl phthalate
15. Bis(2-ethylhexyl)phthalate
16. Di-n-octyl phthalate
17. Di-n-nonyl phthalate