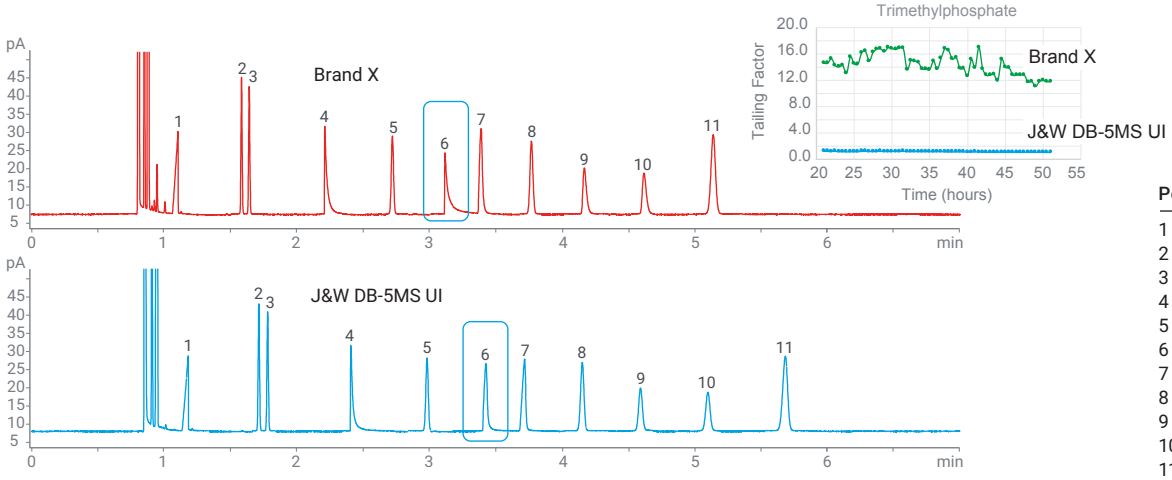
The Ideal Partner for Pesticides and Other Semivolatile GC Analysis

Agilent J&W DB-5ms Ultra Inert GC columns

Is your GC column struggling to keep performance for semivolatiles analysis?

GC analysis of semivolatiles requires a column with robustness and thermal stability. Operating at the maximum temperature for extended periods can cause some GC phases to break down, leading to significant peak tailing for active compounds.

Agilent J&W DB-5ms Ultra Inert GC column offers consistent peak shapes for challenging semivolatile analytes–even after constant use at maximum temperatures. Here, we compared an Agilent DB-5ms UI column to a Brand X 5ms column after 50 hours at 350 °C. Increased peak tailing for trimethylphosphate was observed with Brand X, as well as a higher tailing factor over time. Neither problem was observed with the Agilent column—demonstrating its superior robustness for difficult analytes. The DB-5ms UI column performance translates into less reruns, minimal method recalibration, and more runs performed with the same GC column.



Peak	Name
1	Propionic Acid
2	1-Octene
3	n-Octane
4	4-Methylpyridine
5	n-Nonane
6	Trimethylphosphate
7	1,2-Pentanediol
8	n-Propylbenzene
9	1-Heptanol
10	3-Octanone
11	n-Decane

Conditions

GC System:	Agilent 8890/FID	Inlet:	Split Mode, 250°C, 250:1	Detector:	FID, 325 °C, hydrogen: 30 mL/min, air: 400 mL/min
Column:	Agilent J&W DB-5ms Ultra Inert 30m x 0.25mm x 0.25 µm (121-5522UI)	Carrier:	Helium, constant flow, 1.3 mL/min		
		Oven:	65 °C (10 min)		

To learn how Agilent Inert Flow Path solutions can give you the utmost confidence in your results, visit www.agilent.com/chem/inert

DE44421.4833680556

Published in the USA, August 24, 2021
5994-3909EN

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