



# 7 EPA Methods on 1 Column Pair

## Analyze Pesticides, PCBs, Herbicides and More on a Single Rtx<sup>®</sup>-CLPesticides Column Set

Get improved resolution, faster analyses, and less downtime by using Rtx<sup>®</sup>-CLPesticides and Rtx<sup>®</sup>-CLPesticides2 columns for multiple methods. Instead of changing columns between GC/ECD methods, you can save time by analyzing chlorinated pesticides, PCBs, herbicides, and other halogenated compounds on a single column set. Rtx<sup>®</sup>-CLPesticides and Rtx<sup>®</sup>-CLPesticides2 columns have a unique selectivity and outperform other column sets offered specifically for multiple GC/ECD methods.

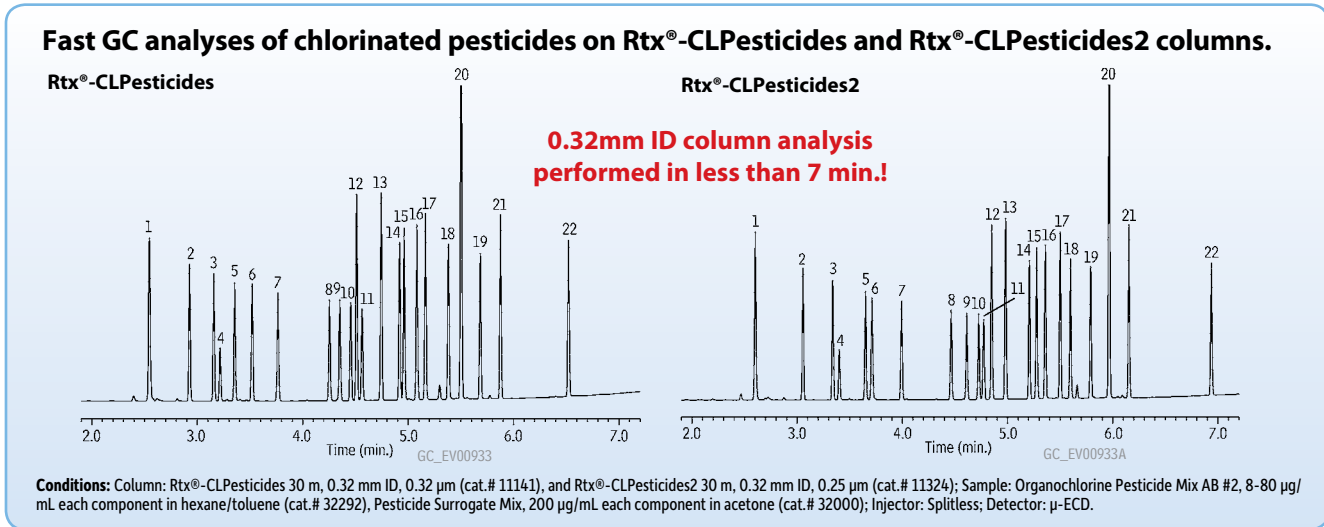
For complete comparisons and chromatograms for all methods, visit [www.restek.com/RtxCLP7](http://www.restek.com/RtxCLP7)

EPA Method	Column Pair	Analysis Time (min.)	Coelutions	Restek Advantage
<b>8081B</b>	Rtx-CLPesticides / Rtx-CLPesticides2	7 / 7	0 / 0	<ul style="list-style-type: none"> <li>• Increase sample throughput with 7 min. analyses.</li> <li>• <i>See reverse for chromatogram and time savings calculation!</i></li> </ul>
	DB-35ms / DB-XLB	15 / 16	0 / 0	
	ZB-MR1 / ZB-MR2	10 / 9	0 / 0	
<b>8081B (extended)</b>	Rtx-CLPesticides / Rtx-CLPesticides2	24 / 23	1 / 2	<ul style="list-style-type: none"> <li>• Best balance of speed and selectivity.</li> <li>• All compounds are resolved between both columns.</li> </ul>
	DB-35ms / DB-XLB	42 / 39	2 / 3	
	ZB-MR1 / ZB-MR2	NDP / 16	NDP / 3	
<b>8082A</b>	Rtx-CLPesticides / Rtx-CLPesticides2	7 / 7	0 / 0	<ul style="list-style-type: none"> <li>• Analyze PCBs 2x or 3x faster than on other ECD columns.</li> </ul>
	DB-35ms / DB-XLB	14 / 16	0 / 0	
	ZB-MR1 / ZB-MR2	24 / 21	0 / 0	
<b>8151A</b>	Rtx-CLPesticides / Rtx-CLPesticides2	13 / 13	1 / 0	<ul style="list-style-type: none"> <li>• Increase sample throughput with fastest run time.</li> </ul>
	DB-35ms / DB-XLB	16 / 17	0 / 0	
	ZB-MR1 / ZB-MR2	16 / 15	1 / 1	
<b>504.1</b>	Rtx-CLPesticides / Rtx-CLPesticides2	9 / 10	0 / 0	<ul style="list-style-type: none"> <li>• Reliably separate analytes from trihalomethane interferences.</li> </ul>
	DB-35ms / DB-XLB	NDP	NDP	
	ZB-MR1 / ZB-MR2	NDP	NDP	
<b>505</b>	Rtx-CLPesticides / Rtx-CLPesticides2	18 / 18	1 / 1	<ul style="list-style-type: none"> <li>• Fast, reliable analysis.</li> </ul>
	DB-35ms / DB-XLB	NDP	NDP	
	ZB-MR1 / ZB-MR2	NDP	NDP	
<b>508.1</b>	Rtx-CLPesticides / Rtx-CLPesticides2	23 / 24	2 / 2	<ul style="list-style-type: none"> <li>• All compounds resolved between both columns.</li> <li>• Best overall balance of speed and resolution.</li> </ul>
	DB-35ms / DB-XLB	22 / 24	2 / 4	
	ZB-MR1 / ZB-MR2	18 / NDP	2 / NDP	
<b>552.2</b>	Rtx-CLPesticides / Rtx-CLPesticides2	12 / 12	0 / 0	<ul style="list-style-type: none"> <li>• No coelutions—get accurate results for compounds that coelute on other columns.</li> </ul>
	DB-35ms / DB-XLB	8 / 9	2 / 1	
	ZB-MR1 / ZB-MR2	NDP	NDP	

*Comparison based on published competitor data. NDP = no data published*

# Cut Analysis Time in Half for Method 8081 Using Rtx<sup>®</sup>-CLPesticides Columns

The selectivity of the Rtx<sup>®</sup>-CLPesticides column set was originally tuned for the analysis of organochlorine pesticides by EPA Method 8081. This is one of the most common ECD methods used by environmental labs, and it provides an excellent example of the performance of the column pair. All compounds are fully resolved in just 7 minutes using standard 0.32 mm columns for analysis. This time savings translates into significantly higher sample throughput, which is an important consideration for environmental labs.



Sample throughput can be significantly improved by using Rtx<sup>®</sup>-CLPesticides and Rtx<sup>®</sup>-CLPesticides2 columns.

Vendor	Column Pair	Analysis Time	Coelutions	Runs/12 hr Shift*
Restek	Rtx-CLPesticides	7	0	42
	Rtx-CLPesticides2	7	0	
Agilent	DB-35ms	15	0	27
	DB-XLB	16	0	
Phenomenex	ZB-MR1	10	0	36
	ZB-MR2	9	0	

\* Assuming a 5 minute cool-down and equilibration time and a 5 minute high temperature hold after the last compound elutes, samples run per 12 hour sequence are calculated as follows:

Restek: 5 min. + 5 min. + 7 min. = 17 min./sample; 720 min./17 min. = 42 samples  
 Agilent: 5 min. + 5 min. + 16 min. = 26 min./sample; 720 min./26 min. = 27 samples  
 Phenomenex: 5 min. + 5 min. + 10 min. = 20 min./sample; 720 min./20 min. = 36 samples



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