

APPLICATION

Banned Carcinogenic Aromatic Amines by LC/UV Using a Kinetex[®] EVO C18 Core-Shell LC Column

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Overview

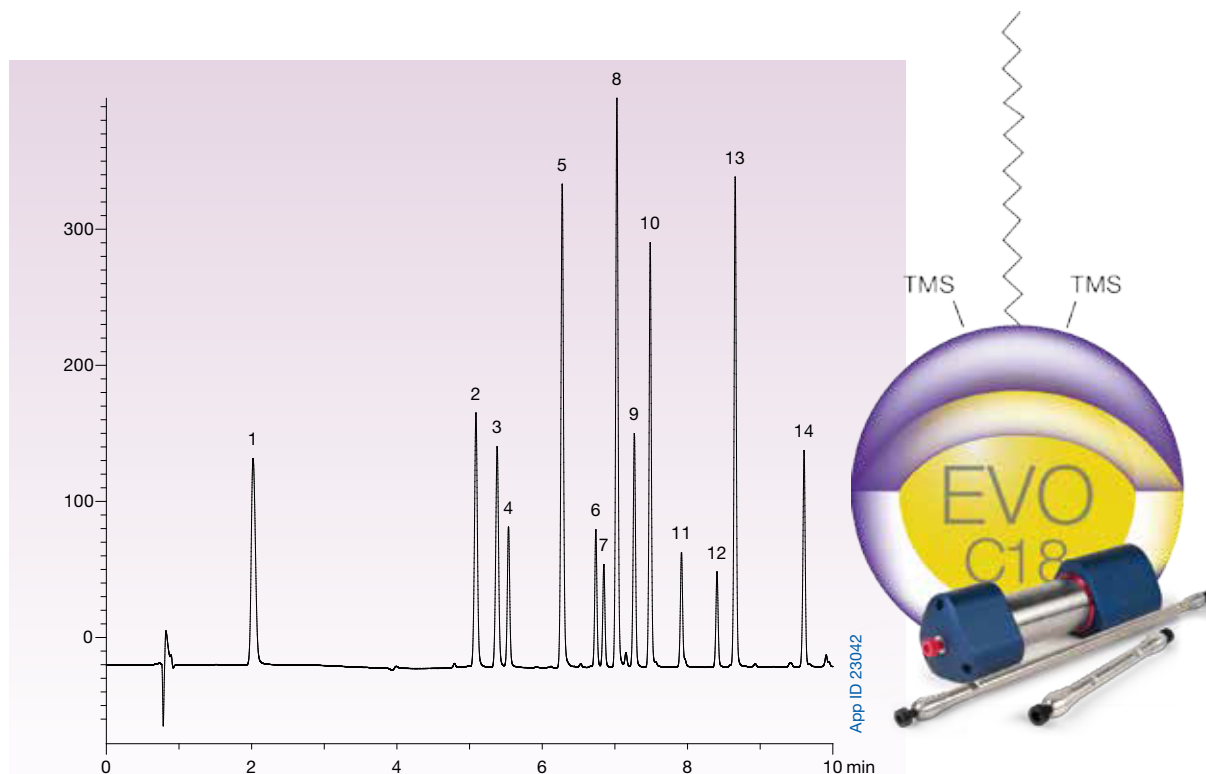
Aromatic amines have numerous manufacturing applications including the production of dyes, polymers, surfactants, drugs and pesticides. However, these compounds present a risk to consumers since many aromatic amines have been classified as carcinogenic. Regulatory agencies including the FDA and EU have placed restrictions on the use of certain aromatic amines. Below is a fast analysis of 14 banned carcinogenic aromatic amines using a Kinetex EVO C18 core-shell HPLC/UHPLC column. The high-performance and unique selectivity of the Kinetex EVO C18 HPLC column gives us narrow peak widths along with excellent resolution between all 14 aromatic amines. Additionally, the fast analysis time lends to a potential increase in productivity for higher throughput laboratories. In the event that an even faster UHPLC method is preferred, this methodology can be transferred to a shorter Kinetex 1.7 µm EVO C18 column because of the direct scalability between the Kinetex particle sizes.

Find more information on Kinetex core-shell HPLC and UHPLC columns at:

www.phenomenex.com/kinetex

LC/UV Conditions

Column:	Kinetex 2.6 µm EVO C18	
Dimensions:	150 x 2.1 mm	
Part No.:	00F-4725-AN	
Mobile Phase:	A: 10 mM Ammonium Acetate/Acetonitrile (95:5) B: Acetonitrile	
Gradient:	Time (min)	% B
	0	5
	10	95
Flow Rate:	0.4 mL/min	
Temperature:	50 °C	
Detection:	UV @ 240 nm	
Sample:	<ol style="list-style-type: none"> 1. 4-Methyl-m-phenylenediamine 2. o-Anisidine 3. o-Toluidine 4. Benzidine 5. 4-Chloroaniline 6. 3,3-Dimethoxybenzidine 7. 3,3-Dimethylbenzidine 8. 2-Naphthylamine 9. 2,4,5-Trimethylaniline 10. 4,4'-methylene-dio-toluidine 11. 4-Aminobiphenyl 12. 3,3-Dichlorobenzidine 13. 2,2'-Dichloro-4,4'-methylene-dianiline 14. o-Aminoazotoluene 	



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Ordering Information

Kinetex[®] EVO C18 Core-Shell LC Columns

5 µm Minibore Columns (mm)				SecurityGuard [™] ULTRA Cartridges [‡]
30 x 2.1	50 x 2.1	100 x 2.1	150 x 2.1	3/pk
00A-4633-AN	00B-4633-AN	00D-4633-AN	00F-4633-AN	AJO-9298 for 2.1 mm ID

5 µm MidBore [™] Columns (mm)			SecurityGuard [™] ULTRA Cartridges [‡]
50 x 3.0	100 x 3.0	150 x 3.0	3/pk
00B-4633-YO	00D-4633-YO	00F-4633-YO	AJO-9297 for 3.0 mm ID

5 µm Analytical Columns (mm)				SecurityGuard [™] ULTRA Cartridges [‡]
50 x 4.6	100 x 4.6	150 x 4.6	250 x 4.6	3/pk
00B-4633-EO	00D-4633-EO	00F-4633-EO	00G-4633-EO	AJO-9296 for 4.6 mm ID

2.6 µm Minibore Columns (mm)				SecurityGuard [™] ULTRA Cartridges [‡]
30 x 2.1	50 x 2.1	100 x 2.1	150 x 2.1	3/pk
00A-4725-AN	00B-4725-AN	00D-4725-AN	00F-4725-AN	AJO-9298 for 2.1 mm ID

2.6 µm MidBore [™] Columns (mm)			SecurityGuard [™] ULTRA Cartridges [‡]
50 x 3.0	100 x 3.0	150 x 3.0	3/pk
00B-4725-YO	00D-4725-YO	00F-4725-YO	AJO-9297 for 3.0 mm ID

2.6 µm Analytical Columns (mm)				SecurityGuard [™] ULTRA Cartridges [‡]
50 x 4.6	100 x 4.6	150 x 4.6		3/pk
00B-4725-EO	00D-4725-EO	00F-4725-EO		AJO-9296 for 4.6 mm ID

1.7 µm Minibore Columns (mm)			SecurityGuard [™] ULTRA Cartridges [‡]
50 x 2.1	100 x 2.1	150 x 2.1	3/pk
00B-4726-AN	00D-4726-AN	00F-4726-AN	AJO-9298 for 2.1 mm ID

[‡] SecurityGuard ULTRA Cartridges require holder, Part No.: AJO-9000

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Trademarks

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Kinetex EVO is patented by Phenomenex. U.S. Patent Nos. 7,563,367 and 8,658,038 and foreign counterparts.

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