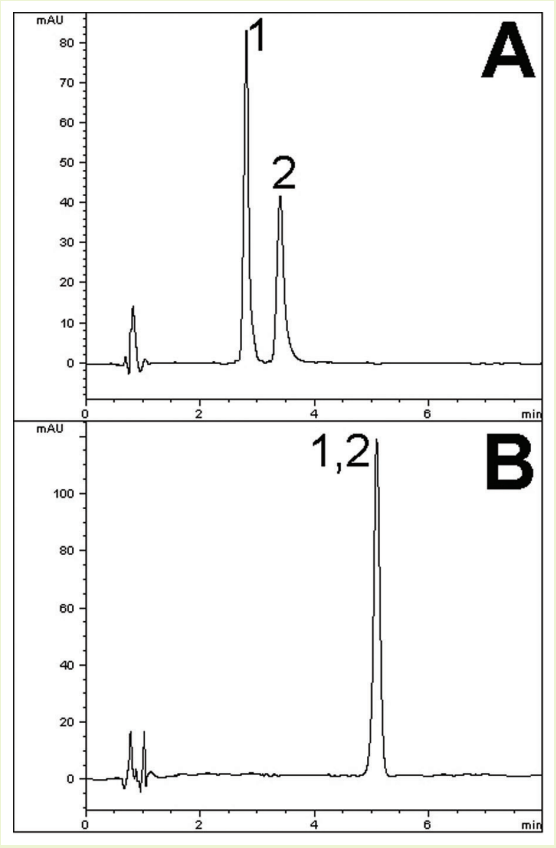
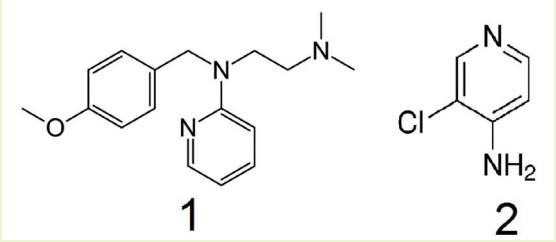
Pyrilamine and 4-Amino-3-Chloropyridine

Unique selectivity from a unique stationary phase





Note: Amine-containing compounds such as pyrilamine and 4-amino-3-chloropyridine can be difficult to analyze using conventional silica-based stationary phases. These columns have residual silanol groups on the surface that can interact electrostatically with amines, causing peak tailing. Chromatographers use a number of strategies to avoid these issues, such as use of ion pair agents or endcapping. However, Cogent TYPE-C Silica phases are virtually free of silanols, and therefore good peak shapes can be obtained without these workaround method strategies.

Method Conditions

Column: **Cogent Amide™**, 4µm, 100Å

Catalog No.: 40036-05P

Dimensions: 4.6 x 50 mm

Solvents: A: 90% DI H_2O / 10% acetonitrile / 0.1% formic acid (v/v)
B: Acetonitrile / 0.1% formic acid (v/v)

Gradient:

time (min.)	%B
0	90
1	90
7	50
8	90

Post Time: 3 min

Injection vol.: 2µL

Flow rate: 1.0mL/min

Detection: UV 244 nm

Sample: 100 mg/L pyrilamine and 4-amino-3-chloropyridine reference standards in diluent of 50/50 solvent A/solvent B. Peak identities confirmed with individual standards

Peaks: 1. Pyrilamine
2. 4-Amino-3-chloropyridine

Discussion

The Cogent Amide column offers unique selectivity that may not be readily attainable with other phases. Two test solutes shown in this application note (pyrilamine and 4-amino-3-chloropyridine) were baseline separated on the Cogent Amide column (Figure A), but they co-eluted with no resolution on a different Cogent column using otherwise equivalent method conditions (Cogent Diamond Hydride™, Figure B). The presence of the amide ligand provides additional selectivity that can make a significant difference in resolving closely-eluting compounds such as these.

MANUFACTURED BY:
MICROSOLV TECHNOLOGY CORPORATION
9158 Industrial Blvd NE
Leland, NC 28451
p: 1.732.380.8900
f: 1.910.769.9435
customers@mtc-usa.com
www.Cogent-HPLC.com