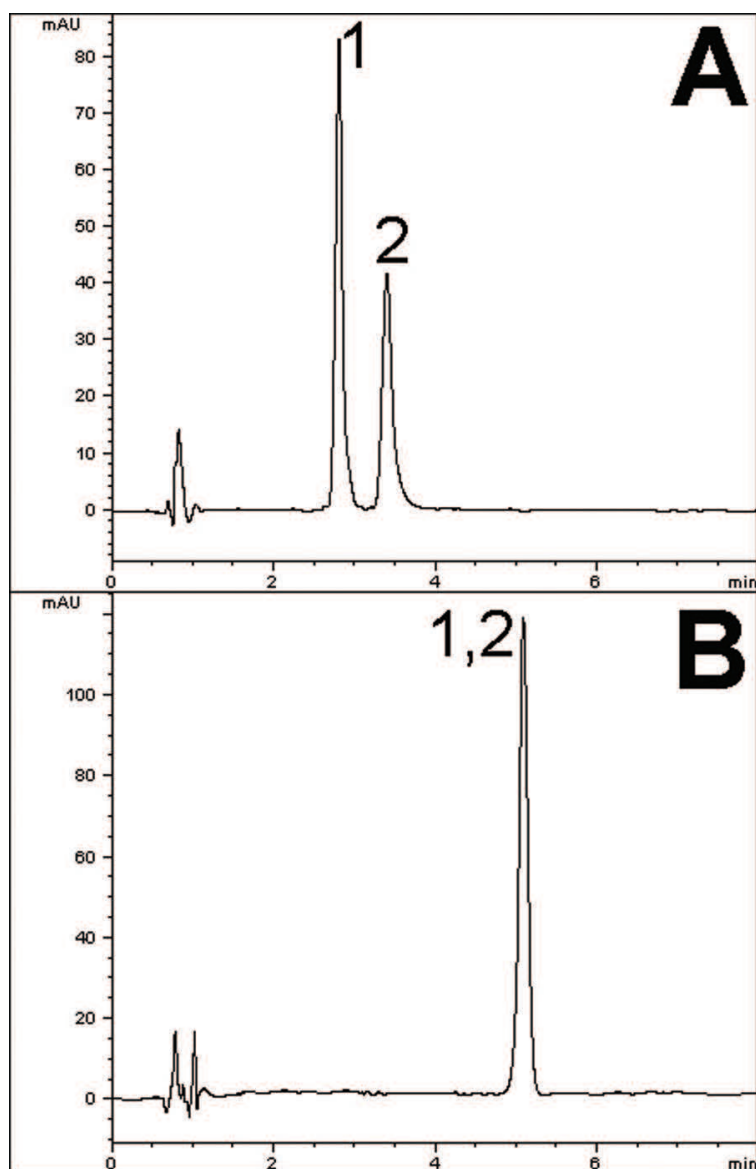


Pyrilamine & 4-Amino-3-Chloropyridine analysis with HPLC - AppNote

Unique Selectivity on a Cogent Amide Stationary Phase

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.



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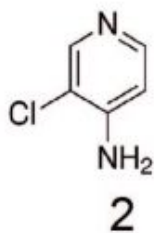
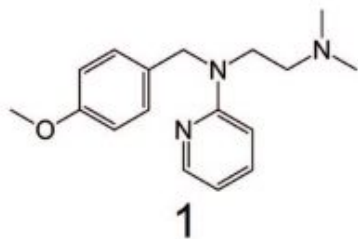
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Peaks:

1. Pylamine
2. 4-Amino-3-Chloropyridine

Method Conditions

Column: Cogent Amide™, 4µm, 100Å

Catalog No.: 40036-05P

Dimensions: 4.6 x 50mm

Mobile Phase:

A: 90% DI Water / 10% Acetonitrile / 0.1% Formic Acid (v/v)

B: B: Acetonitrile / 0.1% Formic Acid (v/v)

Gradient:

| Time (Minutes) | %B |
|----------------|----|
| 0 | 90 |
| 1 | 90 |
| 7 | 50 |
| 8 | 90 |

Post Time: 3 minutes

Flow rate: 1.0 mL/minute

Detection: UV 244 nm

Injection vol.: 2µL

Sample Preparation:

100 mg/L Pylamine and 4-Amino-3-Chloropyridine reference standards in diluent of 50/50 solvent A/solvent B. Peak identities confirmed with individual standards.

Note: Amine-containing compounds such as Pylamine 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 workarounds.

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Attachment

No 352 Ppyrilamine and 4-Amino-3-Chloropyridine.pdf 0.4 Mb [Download File](#)

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