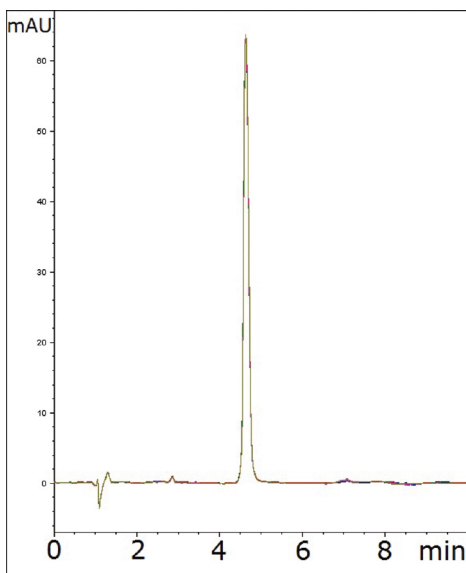
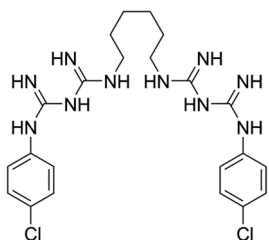


## Chlorhexidine

Rapid, Reliable assay without ion-pairing agents



Overlay of 5 separate runs shown.

**Note:**

Chlorhexidine is an antiseptic which is used in a variety of common products, including contact lens solutions and mouthwash.

### Method Conditions

<b>Column:</b>	Cogent Diamond Hydride™, 4µm, 100A								
<b>Catalog No.:</b>	70000-7.5P								
<b>Dimensions:</b>	4.6 x 75 mm								
<b>Solvents:</b>	A: DI H <sub>2</sub> O/ 0.1% formic acid B: 97% Acetonitrile/ 3% DI H <sub>2</sub> O/ 0.1% formic acid								
<b>Gradient:</b>	<table border="1" style="margin-left: 20px;"> <thead> <tr> <th>time (min.)</th> <th>%B</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>75</td> </tr> <tr> <td>5</td> <td>10</td> </tr> <tr> <td>6</td> <td>75</td> </tr> </tbody> </table>	time (min.)	%B	0	75	5	10	6	75
time (min.)	%B								
0	75								
5	10								
6	75								

<b>Injection Vol.:</b>	2 microL
<b>Flow Rate:</b>	1.0 mL/min
<b>Detection:</b>	UV 239 nm
<b>Sample:</b>	<p><b>Stock solution:</b> 1 mg/mL chlorhexidine in methanol diluent.</p> <p><b>Working solution:</b> A 100 µL aliquot of the stock was diluted to 0.1 mg/mL using 900 µL 50% solvent A/ 50% solvent B mixture diluent.</p>
<b>Peak:</b>	Chlorhexidine
<b>t<sub>0</sub>:</b>	1.0 min

### Discussion

Chlorhexidine contains numerous amine functionalities that can have a detrimental effect on peak shape. The reversed-phase USP assay method uses triethylamine in the mobile phase for this reason. However, the method developed here in aqueous normal phase (ANP) mode uses only formic acid as the mobile phase additive. The figure illustrates how retention by an ANP mechanism can often avoid peak shape issues encountered in reversed phase. In addition, the method shows excellent repeatability, as is shown by the five-run overlay in the figure.

For more information visit [www.MTC-USA.com](http://www.MTC-USA.com)

Cat. No.	Description
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70000-7.5P	Diamond Hydride™ HPLC Column, 100A, 4µm, 4.6 x 75 mm
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