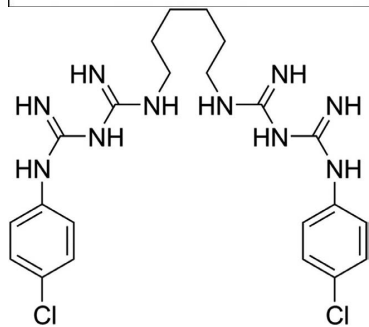
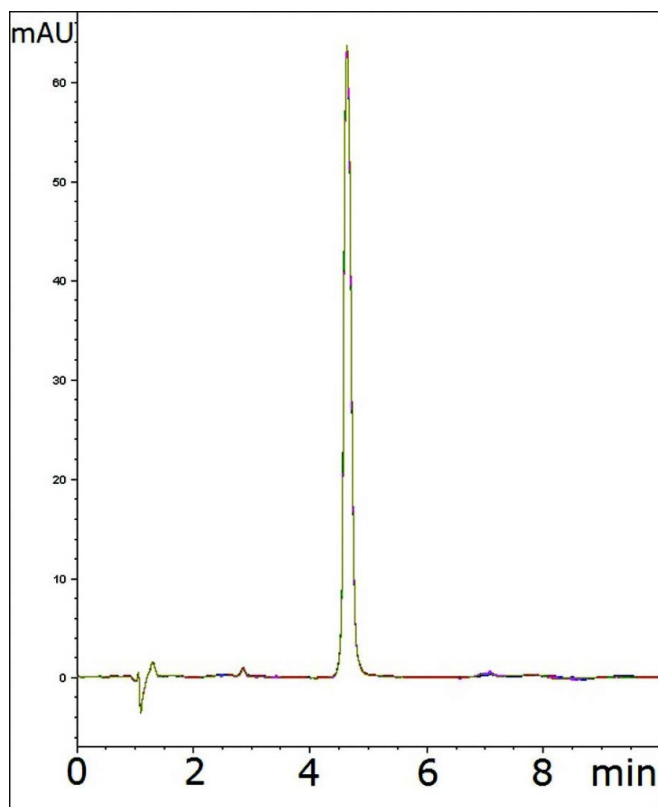


## Chlorhexidine Analyzed with HPLC - AppNote

### Rapid, Reliable Assay without Ion Pairing Agents

Chlorhexidine contains numerous amine functional groups that can have a detrimental effect on Peak Shape in HPLC. The USP Assay Method uses Triethylamine as an Ion Pairing Agent in the Mobile Phase for this reason. The Method developed in this Application Note uses only Formic Acid as the Mobile Phase Additive.

The *Figure* below illustrates how this Method avoids Peak Shape issues encountered in the USP Reversed Phase Monograph. In addition, this Method shows excellent Repeatability, shown by the five Chromatogram overlay.



**Peak:**

Chlorhexidine

### Method Conditions

**Column:** Cogent Diamond Hydride™, 4µm, 100Å

**Catalog No.:** 70000-7.5P

**Dimensions:** 4.6 x 75mm

**Mobile Phase:**

A: DI Water / 0.1% Formic Acid

B: 97% Acetonitrile / 3% DI Water / 0.1% Formic Acid

**Gradient:**

Time (minutes)	%B
0	75
5	10
6	75

**Injection vol.:** 2 $\mu$ L

**Flow rate:** 1.0mL / minute

**Detection:** UV @ 239nm

**Sample Preparation:**

*Stock Solution:* 1mg / mL Chlorhexidine in Methanol diluent.

*Working Solution:* A 100 $\mu$ L aliquot of the Stock Solution was diluted to 0.1mg / mL using 900 $\mu$ L 50:50 Solvent A / Solvent B mixture diluent.

**t<sub>0</sub>:** 1.0 minute

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



**Attachment**

**No 143 Chlorhexidine Analyzed with HPLC pdf** 0.3 Mb [Download File](#)

Printed from the Chrom Resource Center

Copyright 2024, All Rights Apply

**MicroSolv Technology Corporation**

9158 Industrial Blvd. NE, Leland, NC 28451

tel. (732) 380-8900, fax (910) 769-9435

Email: [customers@mtc-usa.com](mailto:customers@mtc-usa.com)

Website: [www.mtc-usa.com](http://www.mtc-usa.com)

Date: 09-19-2024