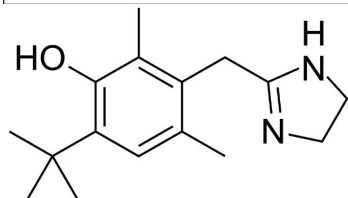
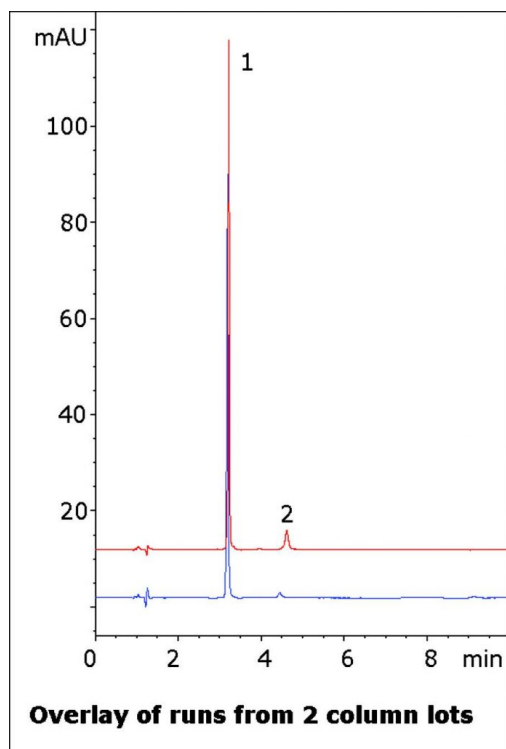


Oxymetazoline HCL Analyzed with HPLC – AppNote

Polar API Separated from a Matrix Peak

Oxymetazoline can be difficult to obtain a good Peak Shape with conventional HPLC Methods, and the USP System Suitability requires that the Tailing Factor be not more than 2.0. Also, the USP Method calls for a Cation Exchange (L9) Column for the Assay. This Method produces excellent Peak Shape also shows Separation of the API from a matrix component or another ingredient in the formulation.

Two runs from different Column batches are overlaid in the Chromatogram to show the Method Robustness and Precision.



Peaks:

1. Oxymetazoline
2. Matrix component

Method Conditions

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

Catalog No.: 70000-7.5P

Dimensions: 4.6 x 75mm

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

Website: www.mtc-usa.com

Mobile Phase:

A: DI Water with 0.1% Trifluoroacetic Acid (TFA)

B: Acetonitrile with 0.1% Trifluoroacetic Acid (TFA)

Gradient:

| Time (minutes) | %B |
|----------------|----|
| 0 | 97 |
| 1 | 97 |
| 6 | 40 |
| 7 | 97 |

Post Time: 3 minutes

Injection vol.: 1µL

Flow rate: 1.0mL / minute

Detection: UV @ 280nm

Sample Preparation: Nasal spray solution containing 0.05% Oxymetazoline HCL was filtered with a 0.45µm Nylon Syringe Filter (MicroSolv Tech Corp.) and used for injections.

t₀: 0.9 minutes

Note: Oxymetazoline is a decongestant that acts as a selective alpha-1 agonist and partial alpha-2 agonist. It is the active ingredient in many nasal spray solutions. It also has vasoconstriction properties and is therefore used in eye drop solutions as well.

**Attachment**

No 204 Oxymetazoline HCL Analyzed with HPLC pdf 0.4 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

Website: www.mtc-usa.com