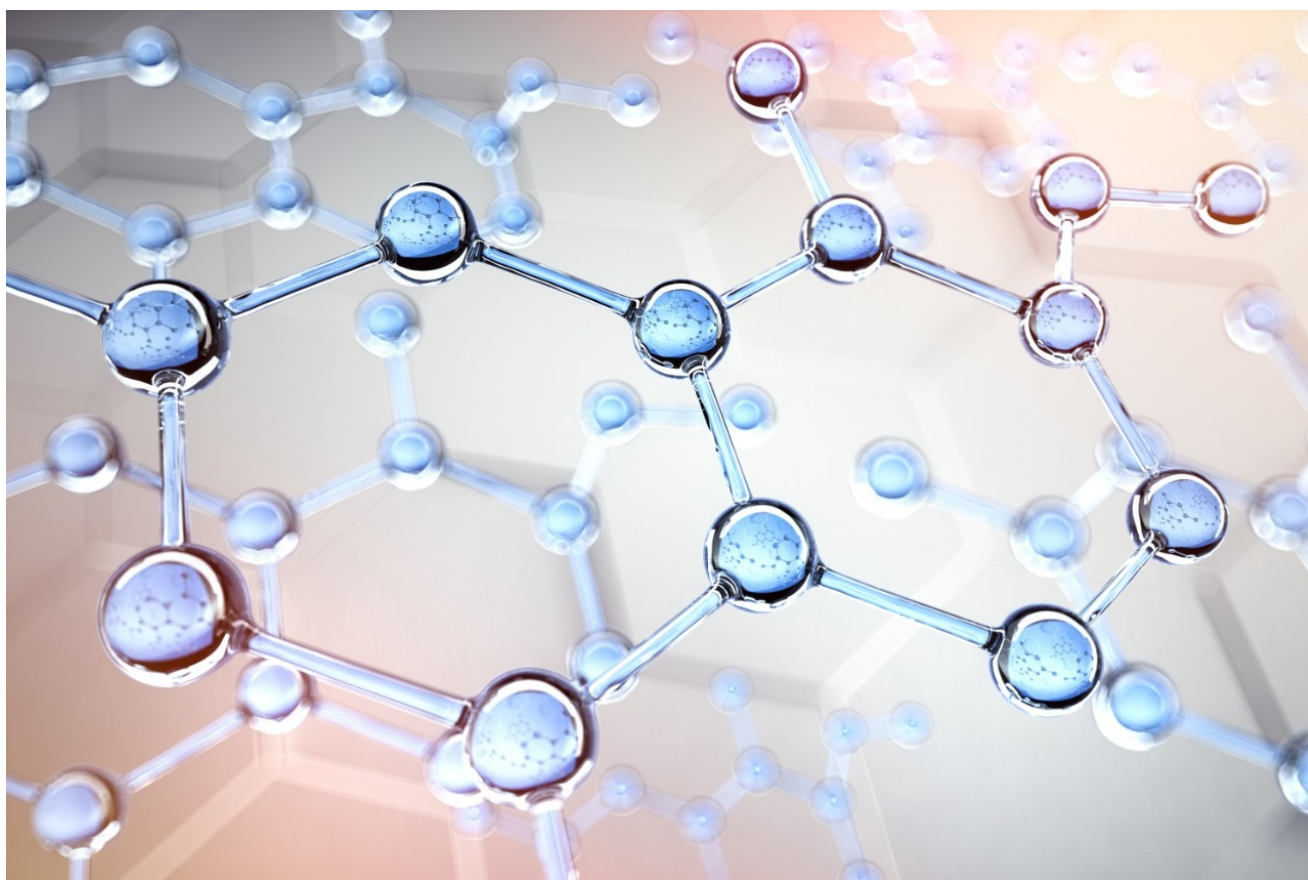


## Hydrophobic Bases: Group of Antihistamines

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Waters Corporation



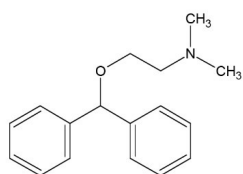
This is an Application Brief and does not contain a detailed Experimental section.

### Abstract

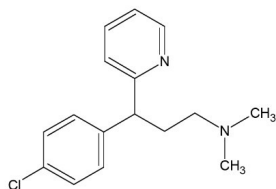
This application brief highlights the analysis of hydrophobic bases.

## Introduction

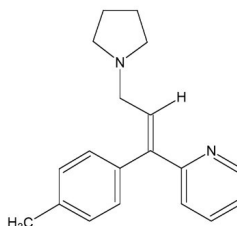
Compounds used in this application brief are shown below.



**Diphenhydramine**



**Chlorpheniramine**



**Tripolidine**

## Experimental

### Conditions

Column:	SunFire C <sub>18</sub> 4.6 x 150 mm, 5.0 μm (p/n: 186002559)
Mobile phase A:	Water
Mobile phase B:	Acetonitrile
Mobile phase C:	1% HCOOH in water
Flow rate:	1 mL/min
Injection volume:	10 μL
Sample concentration:	10 μg/mL in water; Diphenhydramine: 50 μg/mL

Temperature: 30 °C

Detection: UV @ 254 nm

Instrument: Alliance 2695 with 2996 PDA

Compounds	USP tailing
1. Chlorpheniramine	1.15
2. Triprolidine	1.16
3. Diphenhydramine	1.75

## Conditions

Column: SunFire C<sub>8</sub> 4.6 x 150 mm, 5.0 µm (p/n: 186002737)

Mobile phase A: Water

Mobile phase B: Acetonitrile

Mobile phase C: 1% HCOOH in water

Flow rate: 1 mL/min

Injection volume: 10 µL

Sample concentration: 10 µg/mL in water;  
Diphenhydramine: 50 µg/mL

Temperature: 30 °C

Detection: UV @ 254 nm

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Instrument: Alliance 2695 with 2996 PDA

Compounds USP Tailing

Chlorpheniramine 1.01

Tripolidine 1.1

Diphenhydramine 2.17

## Conditions

Column: SunFire C<sub>8</sub> 4.6 x 100 mm, 5.0 µm (p/n: 186002731)

Mobile phase A: Water

Mobile phase B: Acetonitrile

Mobile phase C: 1% HCOOH in water

Flow rate: 1 mL/min

Injection volume: 10 µL

Sample concentration: 10 µg/mL in water;  
Diphenhydramine: 50 µg/mL

Temperature: 30 °C

Detection: UV @ 254 nm

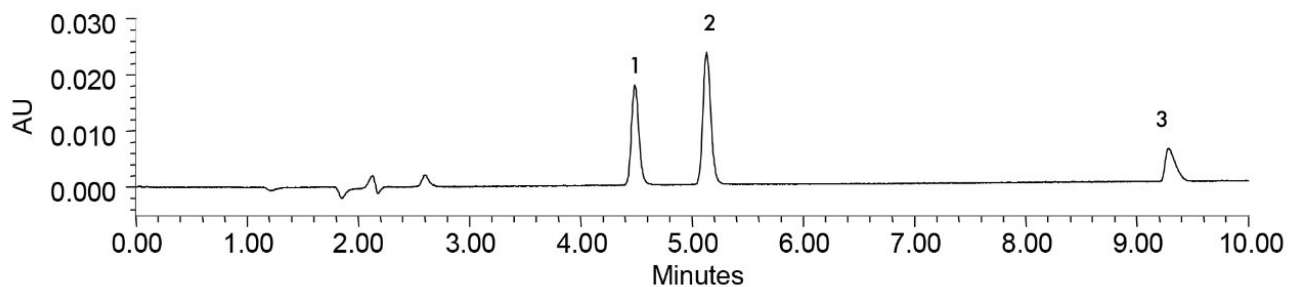
Instrument: Alliance 2695 with 2996 PDA

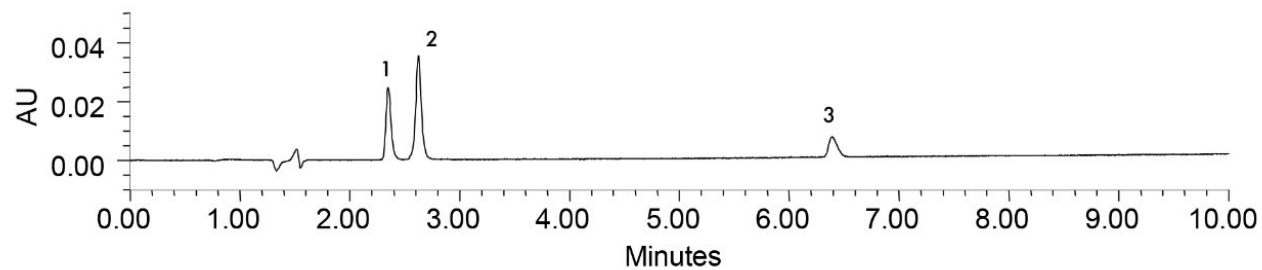
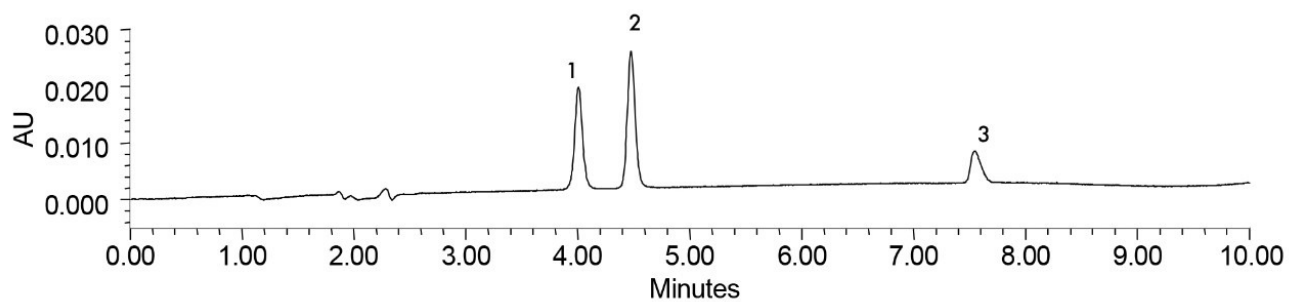
Compounds	USP tailing
1. Chlorpheniramine	1.21
2. Triprolidine	1.05
3. Diphenhydramine	1.31

## Gradient

Time (min)	Profile		
	%A	%B	%C
0.0	75	15	10
10.0	60	30	10
12.0	75	15	10
20.0	75	15	10

## Results and Discussion





## Featured Products

· [Alliance HPLC <https://www.waters.com/514248>](https://www.waters.com/514248)

WA41892, May 2005



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