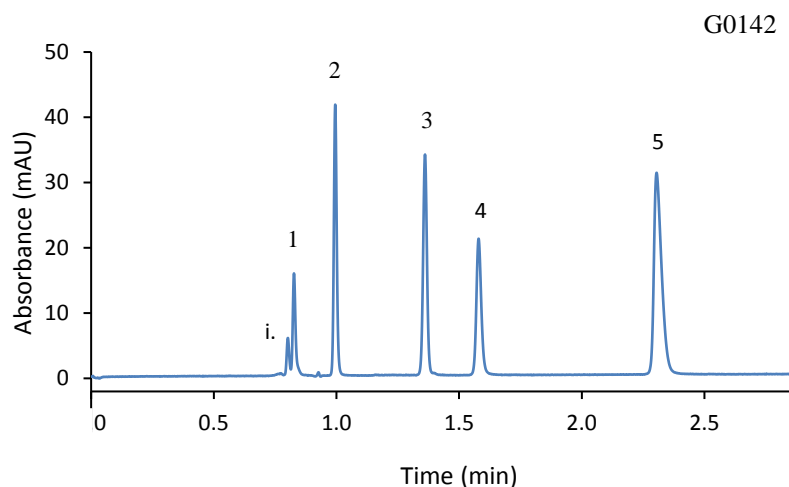


HALO | Fused-Core® Particle Technology

Application Note: 152-CM

Separation of OTC Common Cold Medicinal Compounds



PEAK IDENTITIES:

1. Maleic Acid
 2. Acetaminophen
 3. Guaifenesin
 4. Chlorpheniramine Maleate
 5. Dextromethorphan HBr
- i. Impurity from Dextromethorphan HBr

TEST CONDITIONS:

Column: HALO 90Å, C18, 2.7 μ m, 4.6 x 150mm
Part Number: 92814-702

Mobile Phase:

A= 50mM Potassium Phosphate buffer, pH: 2.5

B= Acetonitrile

Isocratic: 30% B

Flow Rate: 1.5 mL/min

Pressure: 266 bar

Temperature: 45°C

Detection: UV 220 nm, PDA

Injection Volume: 0.5 μ L

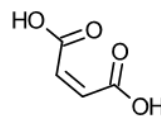
Acquisition Rate: 40 Hz

Flow Cell: 2.5 μ L semi-micro

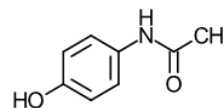
LC System: Agilent 1200 SL

Acetaminophen (analgesic), guaifenesin (expectorant), chlorpheniramine maleate (antihistamine), and dextromethorphan (cough suppressant) are common compounds found in many over-the-counter (OTC) cold medicines. A HALO 90Å, C18 2.7 μ m column is used to separate these compounds quickly and accurately under isocratic conditions.

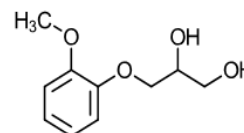
STRUCTURES:



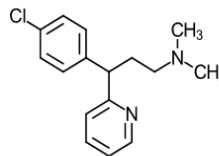
Maleic Acid



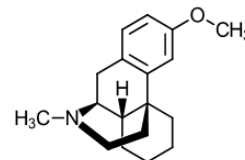
Acetaminophen



Guaifenesin



Chlorpheniramine Maleate



Dextromethorphan HBr