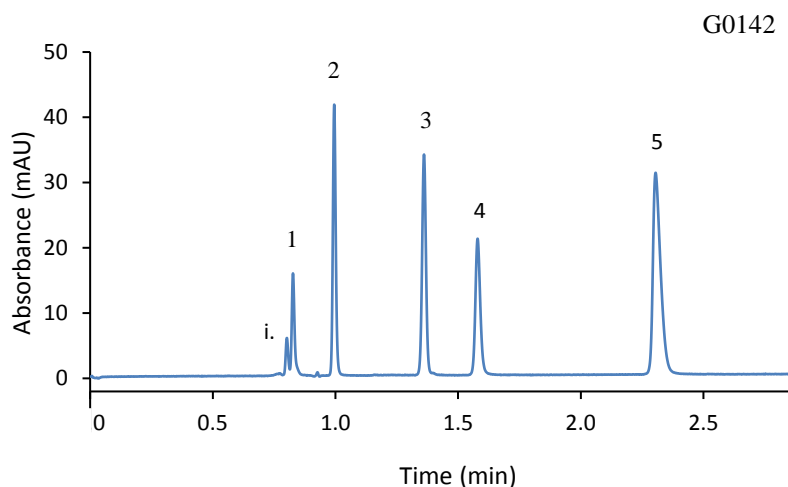


# HALO | Fused-Core® Particle Technology

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  $\mu\text{m}$ , 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

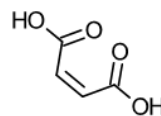
Injection Volume: 0.5  $\mu\text{L}$

Acquisition Rate: 40 Hz

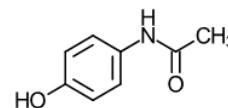
Flow Cell: 2.5  $\mu\text{L}$  semi-micro

LC System: Agilent 1200 SL

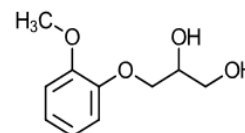
### STRUCTURES:



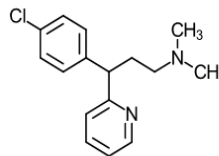
Maleic Acid



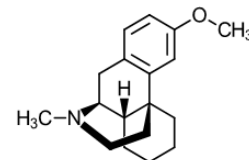
Acetaminophen



Guaifenesin



Chlorpheniramine Maleate



Dextromethorphan HBr

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  $\mu\text{m}$  column is used to separate these compounds quickly and accurately under isocratic conditions.