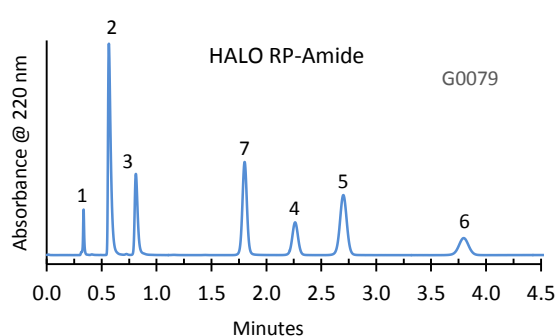
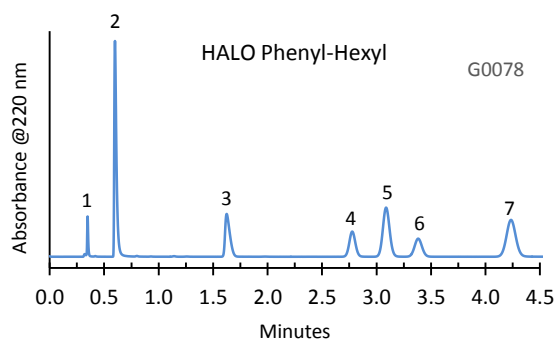


Application Note: 095-P

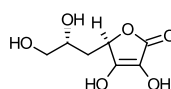
## Separation of Food Additives on HALO Phenyl-Hexyl and RP-Amide Phases



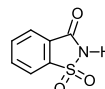
### TEST CONDITIONS:

Column: 4.6 x 50 mm, Phenyl-Hexyl, HALO RP-Amide, 2.7 µm  
 Part Numbers: 92814-406,-407, respectively  
 Mobile Phase: 70/30—A/B  
 A= 0.025 M phosphate buffer, pH=2.5  
 B= Methanol  
 Flow Rate: 1.5 mL/min.  
 Pressure: approximately 220 Bar  
 Temperature: 40 °C  
 Detection: UV 220 nm, VWD  
 Injection Volume: 2.0 µL  
 Sample Solvent: 50/50-Water/methanol  
 Response Time: 0.02 sec.  
 Flow Cell: 2.5 µL semi-micro  
 LC System: Shimadzu Prominence UFLC XR  
 Extra column volume: ~14µL

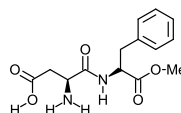
### STRUCTURES:



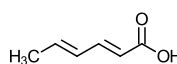
Ascorbic acid



Saccharin



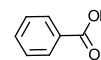
Aspartame



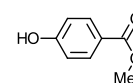
Sorbic acid

### PEAK IDENTITIES:

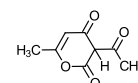
1. Ascorbic acid
2. Saccharin
3. Aspartame
4. Sorbic acid
5. Benzoic acid
6. Methyl paraben
7. Dehydroacetic acid



Benzoic acid



Methyl paraben



Dehydroacetic acid

These compounds are often added to foods to sweeten or preserve them. They can be rapidly analyzed using HALO Phenyl-Hexyl or RP-Amide phases. Note the difference in retention and selectivity of the two phases when run under the same conditions. This allows for flexibility in method development and optimization of the separation.