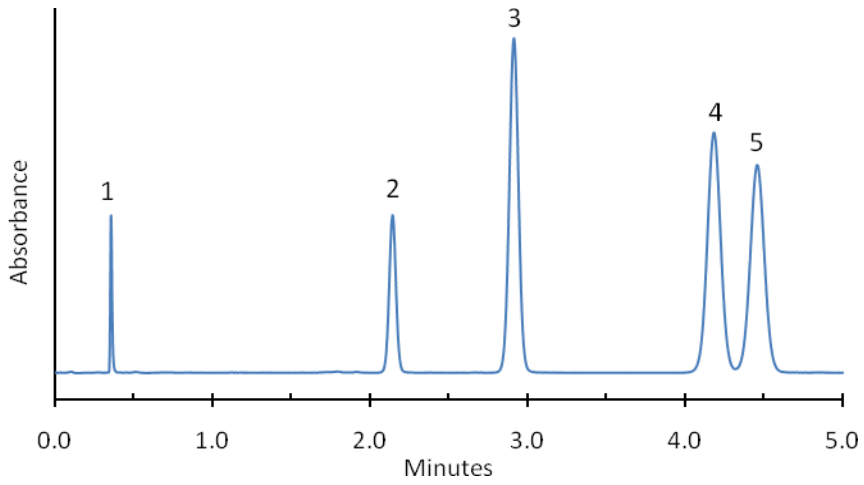
Application Note: 36-EX

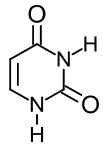
Isocratic Separation of Dinitrotoluenes on HALO PFP Phase



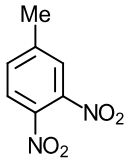
PEAK IDENTITIES:
1. Uracil
2. 2,6-Dinitrotoluene
3. 2,4-Dinitrotoluene
4. 3,4-Dinitrotoluene
5. 2,3-Dinitrotoluene

TEST CONDITIONS:
Column: 4.6 x 50 mm, HALO PFP
Part Number: 92814-409
Mobile Phase: 45/55-Water/Methanol
Flow Rate: 1.5 mL/min.
Pressure: 225 Bar
Temperature: 30 °C
Detection: UV 254 nm, VWD
Injection Volume: 1.0 µL
Sample Solvent: 50/50-Acetonitrile/Methanol
Response Time: 0.02 sec.
Flow Cell: 2.5 µL semi-micro
LC System: Shimadzu Prominence UFLC XR
Extra column volume: ~14 µL

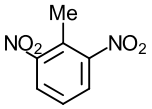
STRUCTURES:



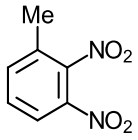
Uracil



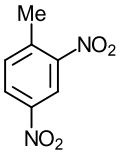
3,4-Dinitrotoluene



2,6-Dinitrotoluene



2,3-Dinitrotoluene



2,4-Dinitrotoluene

These dinitrotoluenes are difficult to separate, but can be separated with baseline resolution in under 5 minutes using a HALO Fused Core PFP (perfluorophenylpropyl) column.