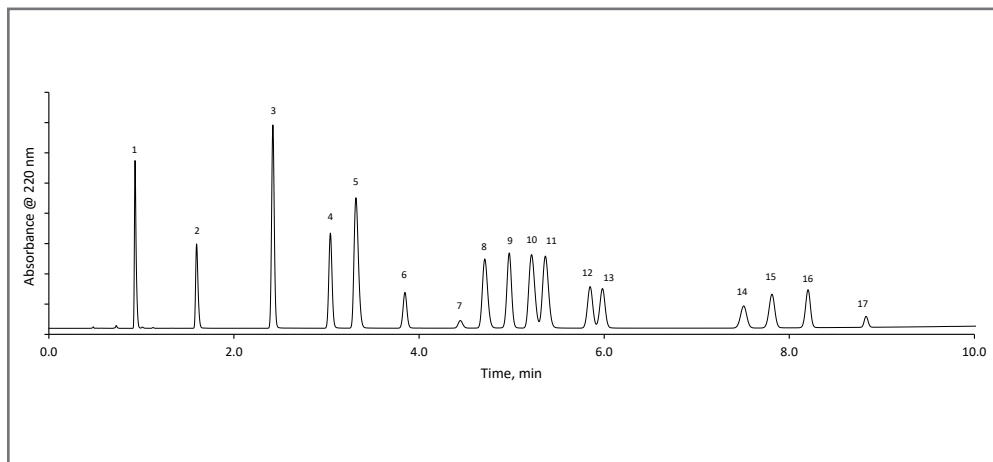




UHPLC Separation of Explosives on 2 µm HALO® C18

239-EX



PEAK IDENTITIES

1. HMX
2. RDX
3. 1,3,5-Trinitrobenzene
4. 1,3-Dinitrobenzene
5. 3,5-Dinitroaniline
6. Nitrobenzene
7. Nitroglycerin
8. Tetryl
9. 2,4,6-Trinitrotoluene
10. 2-Amino-4,6-dinitrotoluene
11. 4-Amino-2,6-dinitrotoluene
12. 2,4-Dinitrotoluene
13. 2,6-Dinitrotoluene
14. 2-Nitrotoluene
15. 4-Nitrotoluene
16. 3-Nitrotoluene
17. PETN (pentaerythritol tetranitrate)

TEST CONDITIONS:

Column: HALO 90 Å C18, 2 µm, 3.0 x 100 mm

Part Number: 91813-602

Mobile Phase A: Water

Mobile Phase B: Methanol

Gradient:	Time	%B
	0.0	25
	6.9	35
	9.9	62

Flow Rate: 0.85 mL/min

Initial Back Pressure: 571 bar

Temperature: 43°C

Detection: 220 nm

Injection Volume: 0.2 µL

Sample Solvent: Methanol

Data Rate: 100 Hz

LC System: Shimadzu Nexera X2

The determination of explosives in the environment is outlined in EPA method 8330B. 17 explosive compounds are separated on a HALO 90 Å 2 µm C18 column in less than 10 minutes using a water/methanol gradient. These compounds are either used in the manufacture of explosives or propellants. The impurities or degradation of these compounds could be found in water, soil, or sediment samples.

