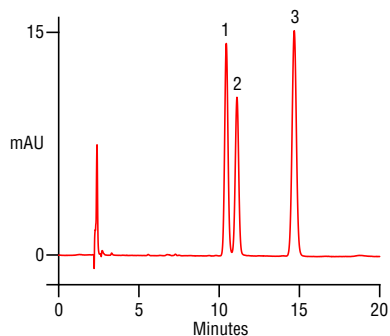


Diisocyanates by OSHA Method 42 on Acclaim® PolarAdvantage II



Column: Acclaim PolarAdvantage II, 5 μ m
4.6 \times 250 mm
Pump: UltiMate™ LPG3400
Mobile Phase: 293 g acetonitrile, 625 g water,
0.77 g NH₄OAc (10 mmol),
adj. to pH 6.0–6.2 with acetic acid

Isocratic
Flow: 1.00 mL/min
Temperature: TCC-3100 at 30 °C
Injection: WPS-3000 SL sampler at 10 μ L
Detector: VWD-3400 UV at 254 nm
(313 nm optional)
Optional RF-2000 fluorescence
ex. 240 nm, em. 370 nm

Peaks:
1. 2,6-Toluenediisocyanate
2. 1,6-Hexamethylenediisocyanate
3. 2,4-Toluenediisocyanate

8.0 μ g/mL each in 90:10 (v/v) acetonitrile:DMSO
Derivatives with 1-(2-pyridyl)piperazine, prepared
according to OSHA method.

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Diisocyanate compounds TDI and HDI are commonly used in the manufacture of urethane polymers, and are toxic by inhalation. OSHA method 42 is a standard method for testing workplace air for contamination of these compounds. The Acclaim PolarAdvantage II column is capable of separating the isocyanate derivatives from this complicated matrix.