

Application Report 220

Analysis of 1-(2-pyridyl)-piperazine (2PP) Derivatives of Di-isocyanates Using Ascentis™ RP-Amide

This application demonstrates the suitability of the Ascentis RP-Amide for the analysis of isocyanate derivatives listed in OSHA methods 42 and 47 and ASTM method D5836.

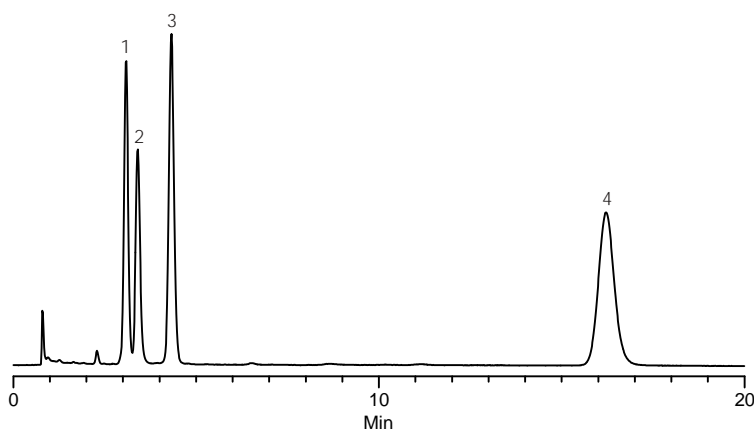
Key Words

Ascentis RP-Amide, 565324-U, 48144, toluene-2,6-di-isocyanate, 48145, toluene-2,4-di-isocyanate, 48146, 1,6-hexamethyl di-isocyanate, 48147, methylene biphenyl isocyanate, isocyanate, di-isocyanates, 1-(2-pyridyl)-piperazine (2PP) derivatives

Author: Hugh M. Cramer

Acquisition System: Waters Alliance
Cinnabar Mountain

Notebook Reference: 1551



G002888

Conditions

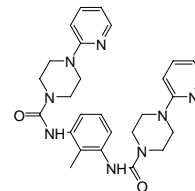
column: Ascentis RP-Amide, 15 cm x 4.6 mm I.D., 5 µm particles (565324-U)
mobile phase: 62:38, water: acetonitrile
flow rate: 2.0 mL/min.
temp.: 35 °C
det.: UV at 254 nm
injection: 10 µL
sample: 20 µg/mL in acetonitrile

Peak IDs

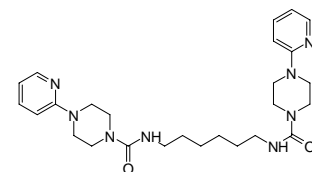
1. 2,6-TDI derivative
2. 1,6-HDI derivative
3. 2,4-TDI derivative
4. MDI derivative

Structures

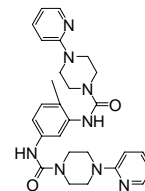
2,6-TDI derivative - G002885



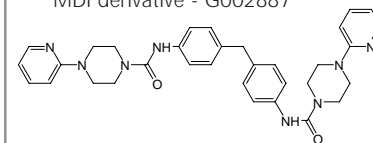
1,6-HDI derivative - G002886



2,4-TDI derivative - G002884



MDI derivative - G002887



Ascentis is a trademark of Sigma-Aldrich Co.