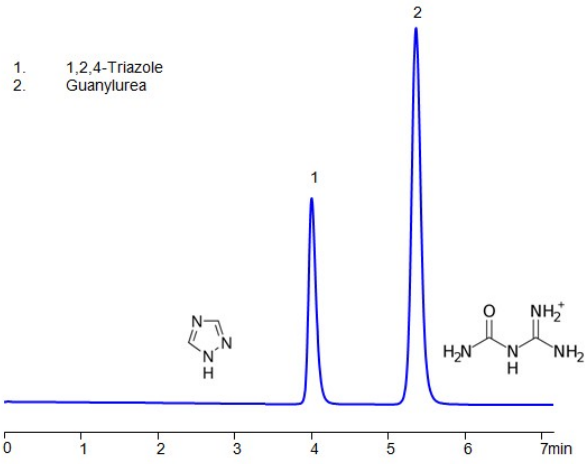
HPLC Method for Separation of 1,2,4-Triazole and Guanylurea on Primesep 100 Column



Column:	Primesep 100
Column size:	4.6× 150 mm, 5 µm
Column part number:	100-46.150.0510
Mobile phase:	MeCN/H_2O – 10/90%
Buffer:	H_2SO_4 - 0.2%
Flow rate:	1.0 mL/min
Detection:	UV 200 nm
Column Temp:	30C

Guanylurea, also known as guanidylurea, is a chemical compound with the molecular formula (C_3H_7N_5O). It is derived from guanidine and urea, and it has interesting applications in the field of chemistry and materials science.

It's important to note that guanylurea's applications are primarily in the realm of crystal engineering and related studies. Its ability to participate in hydrogen bonding interactions makes it a valuable component in the design and manipulation of crystalline materials for various purposes.

1,2,4-triazole is a heterocyclic compound with a unique five-membered ring structure. Its versatility, biological activities, and ability to coordinate with metal ions make it a compound of interest in various scientific and medicinal applications.

The 1,2,4-triazole and Guanylurea be retained, separated and analyzed using a Primesep 100 mixed-mode stationary phase column. The analysis employs an isocratic method with a simple mobile phase comprising water, acetonitrile (MeCN), and sulfuric acid as a buffer. This method allows for detection using UV at 200 nm

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Method Parameters

Column	Primesep 100, 4.6 x 150 mm, 5 µm, 100 Å, dual ended
Mobile Phase	MeCN/H2O – 10/90%
Buffer	H2SO4 -0.2%
Flow Rate	1.0 mL/min
Detection	UV 200 nm
Injection Volume	3 µl

Quelle: https://sielc.com/hplc-method-for-analysis-guanylurea-triazole-2