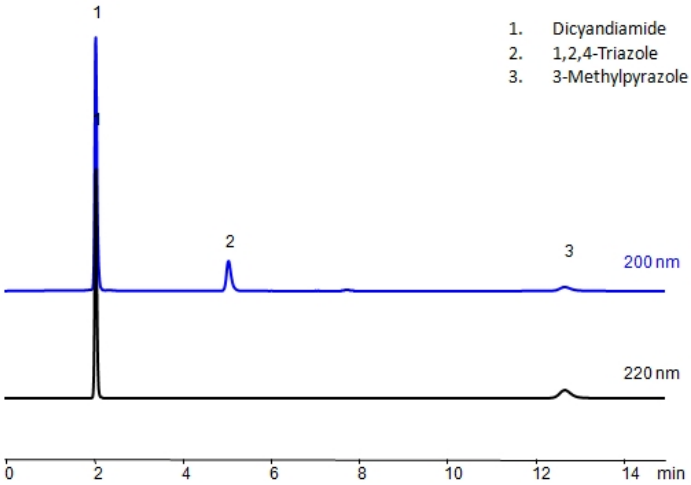
HPLC Separation of Dicyandiamide, 1,2,4-Triazole, 3-Methylpyrazole on Primesep 100 Column



Column:	Primesep 100
Column size:	4.6 × 150 mm, 5 µm
Mobile phase:	MeCN - 10%
Buffer:	H3PO4 – 0.5%
Flow rate:	1.0 ml/min
Detection:	UV 200, 220 nm

High Performance Liquid Chromatography (HPLC) Method for Analysis of Dicyandiamide , 1,2,4-Triazole , 3-Methylpyrazole

Dicyandiamide, or cyanoguanidine, is used as a curing agent for epoxy resins. 1,2,4-triazole, is a heterocycle used primarily as an antifungal but has other uses in the pharmaceutical industry as well. 3-methylpyrazole is used in nitrogen fertilizers. All three compounds are structurally similar and can be separated in HPLC using Primesep 100 reverse-phase (RP) mixed-mode cation-exchange (CX) column using acetonitrile (ACN) and water mobile phase with phosphoric acid buffer and UV detected at 200 nm and 220 nm.

Method Parameters

Column	Primesep 100, 4.6 x 150 mm, 5 µm, 100 Å, dual ended
Mobile Phase	MeCN – 10%
Buffer	H3PO4 – 0.5%
Flow Rate	1.0 mL/min
Detection	UV 200, 220 nm

Quelle: https://sielc.com/hplc-separation-of-dicyandiamide-124-triazole-3-methylpyrazole-on-primesep-100-column