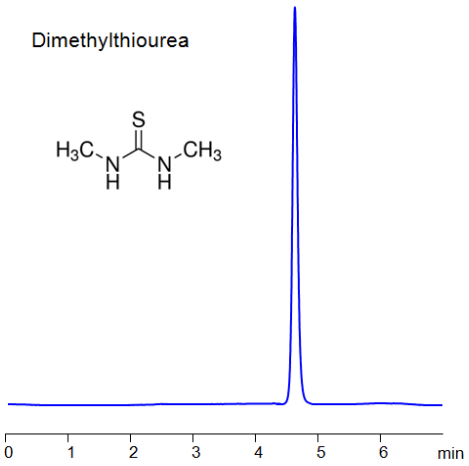
HPLC Method for Analysis of Dimethylthiourea on Primesep P Column



Column:	Primesep P
Column size:	4.6 × 250 mm, 5 µm
Column part number:	P-46.250.0510
Mobile phase:	MeCN/H_2O – 5/95%
Buffer:	None
Flow rate:	1.0 mL/min
Detection:	UV 200 nm

Separation type: Liquid Chromatography Mixed-mode

Dimethylthiourea is an organic compound containing two methyl groups attached to a thiourea molecule. The chemical formula is (CH3)2NCSNH2. Like other thiourea derivatives, dimethylthiourea has a range of uses in various fields, including research and industrial applications.

In research, it's often used due to its properties as a good hydrogen bond donor and acceptor, allowing it to participate in a variety of reactions. For example, it can be used as a reducing agent in some types of reactions. It also has some interesting properties in terms of its electrical conductivity and its ability to absorb certain types of radiation, which make it useful in some niche applications.

Using a Primesep P Mixed-mode phase column and a mobile phase consisting of water and Acetonitrile (MeCN) with no buffer, dimethylthiourea can be retained and analyzed. This analysis method can be UV detected at 200 nm.

LOD was determined for this combination of instrument, method, and analyte, and it can vary from one laboratory to another even when the same general type of analysis is being performed.

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Method Parameters

Column	Primesep P, 4.6 x 250 mm, 5 µm, 100 Å, dual ended
Mobile Phase	MeCN/H2O – 5/95%
Buffer	None
Flow Rate	1.0 mL/min
Detection	UV 200 nm
Limit of Detection	2 ppb
Injection Volume	1 µl

Quelle: https://sielc.com/hplc-method-of-dmtu