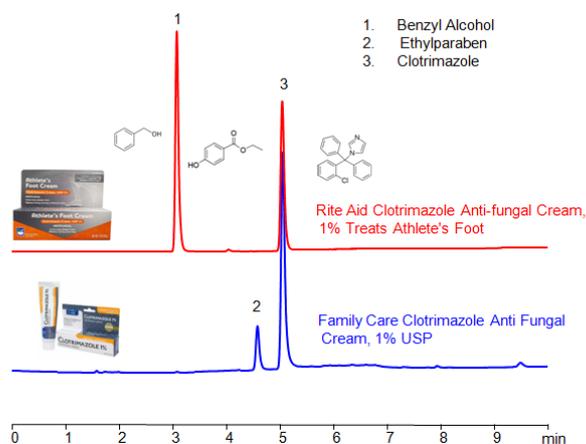


HPLC Method for Estimation of Clotrimazole in Health Care Products on Primesep 200 Column



Column:	Primesep 200
Column size:	4.6 × 150 mm, 5 μm
Column part number:	200-46.150.0510
Mobile phase:	Gradient MeCN – 40-90%, 10 min
Buffer:	H ₂ SO ₄ – 0.2%
Flow rate:	1.0 mL/min
Detection:	UV 200 nm

Clotrimazole is an antifungal medication widely used in the treatment of fungal infections.

Clotrimazole belongs to the class of chemical compounds known as imidazoles. Specifically, it's an antifungal compound used to treat fungal infections. Imidazoles work by inhibiting the enzyme lanosterol 14 α -demethylase, which is necessary for the synthesis of ergosterol, an essential component of fungal cell membranes. When ergosterol synthesis is disrupted, it leads to alterations in the cell membrane's permeability and, eventually, fungal cell death.

Other antifungal agents in the imidazole class include miconazole, econazole, and ketoconazole, among others. These are commonly used in various formulations to treat a range of fungal infections, including athlete's foot, ringworm, and yeast infections.

Clotrimazole can be retained, and analyzed on a Primesep 200 mixed-mode stationary phase column using an isocratic analytical method with a simple mobile phase of water, Acetonitrile (MeCN), and a sulfuric acid as a buffer. This analysis method can be detected in the UV 200 nm.

Method Parameters

Column	Primesep 200, 4.6 x 150 mm, 5 µm, 100 Å, dual ended
Mobile Phase	Gradient MeCN – 40-90%, 10 min
Buffer	H2SO4 – 0.2%
Flow Rate	1.0 mL/min
Detection	UV, 200 nm

Quelle: <https://sielc.com/hplc-method-for-analysis-of-clotrimazole>