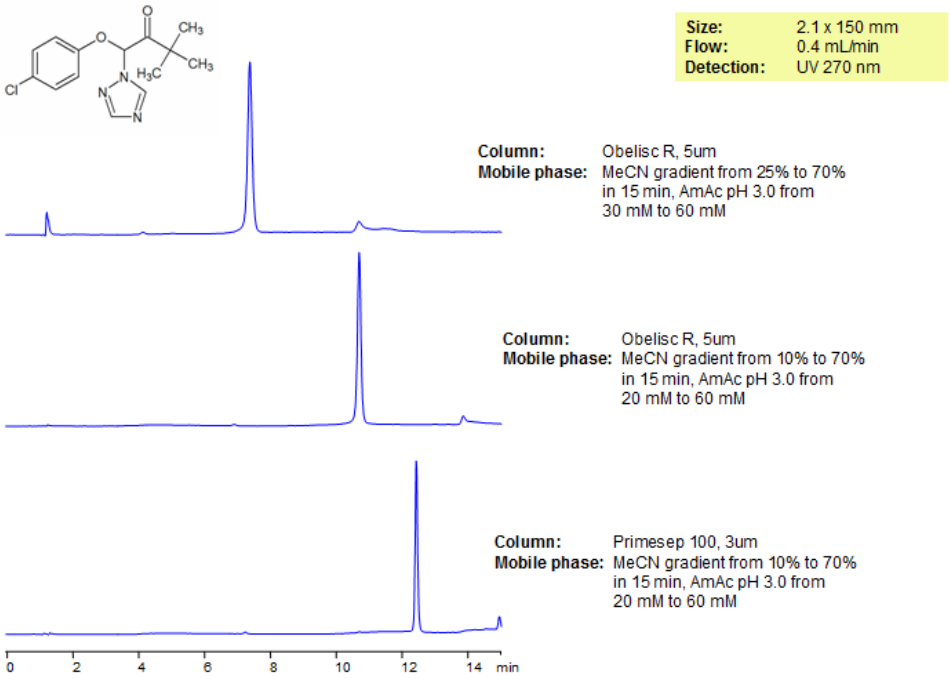
Separating Triadimefon from Impurities on Primesep 100 and Obelisc R HPLC Columns



Triadimefon is known as Bayleton, usually used in a mixture of pesticides including captan, and folpet. A triazole family pesticide, triadimefon is a systemic fungicide that controls the mildew and fungal pests on trees, turf and fruits. It is considered moderately toxic and a method is useful for analyzing triadimefon. Primesep 100 and Obelisc R were the mixed-mode columns used. Primesep 100 separates using reverse-phase and acidic ion-pairing groups. Obelisc R uses a long hydrophobic chain and multiple ion-pairing groups. Method is LC/MS compatible and can be use for dozens of pesticides.

SIELC has developed the Obelisc™ columns, which are mixed-mode and utilize Liquid Separation Cell technology (LiSC™). These cost-effective columns are the first of their kind to be commercially available and can replace multiple HPLC columns, including reversed-phase (RP), AQ-type reversed-phase, polar-embedded group RP columns, normal-phase, cation-exchange, anion-exchange, ion-exclusion, and HILIC (Hydrophilic Interaction Liquid Chromatography) columns. By controlling just three orthogonal method parameters - buffer concentration, buffer pH, and organic modifier concentration - users can adjust the column properties with pinpoint precision to separate complex mixtures.

Method Parameters

Column	Primesep 100, 2.1×150 mm, 5 µm, 100 Å
Mobile Phase	Gradient MeCN – 10-70%, 15 min
Buffer	Gradient AmAc pH 3.0- 20-60 mM, 15 min
Flow Rate	0.4 mL/min
Detection	UV, 270 nm

Quelle:
https://sielc.com/Application-Separating-Triadimefon-from-Impurities-on-Primesep-and-Obelisc-HPLC-Columns