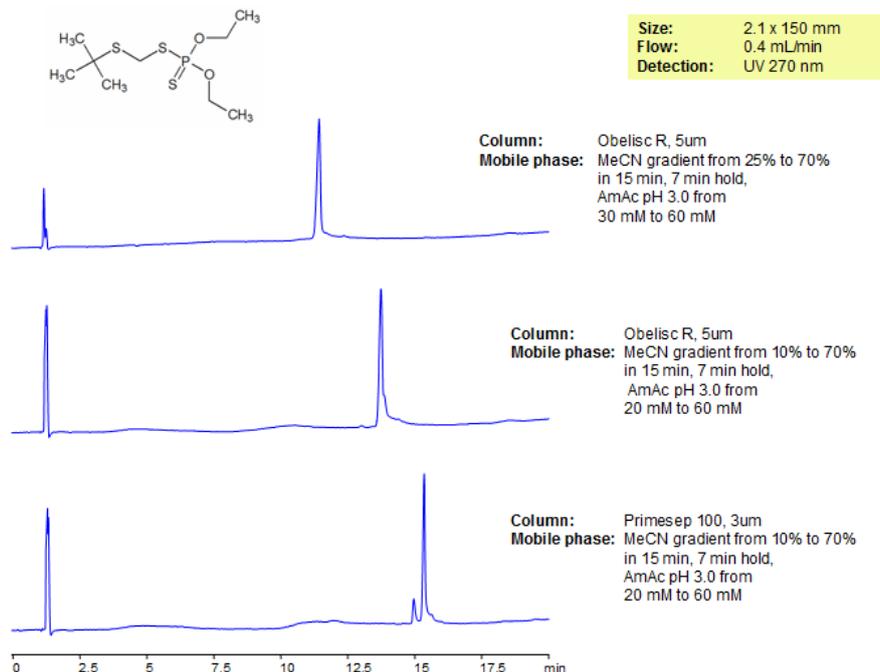


Terbufos Analysis on Primesep 100 and Obelisc R Columns



Terbufos is an organophosphate pesticide and nematocide used in the production of bananas, sugar beets, corn and grain. It is typically applied to the seed or while planting, controlling many insects, wireworms, seedcorn maggots, white grubs, and corn rootworm larva. Terbufos is extremely toxic to workers exposed to concentrated granules. Two mixed-mode HPLC columns were used to separate terbufos with unique selectivity. Primesep 100 is a reverse-phase HPLC column that contains embedded acidic ion-pairing groups. Obelisc R retains compounds with embedded hydrophobic chains and multiple ion-pairing groups. Method can be used to retain and separate dozens of pesticides and is LC/MS compatible.

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%
Buffer	Gradient AmAc pH 3.0- 20-60 mM
Flow Rate	0.4 mL/min
Detection	UV, 270 nm

Quelle: <https://sielc.com/Application-Terbufos-Analysis-on-Primesep-100-and-Obelisc-R-Columns>