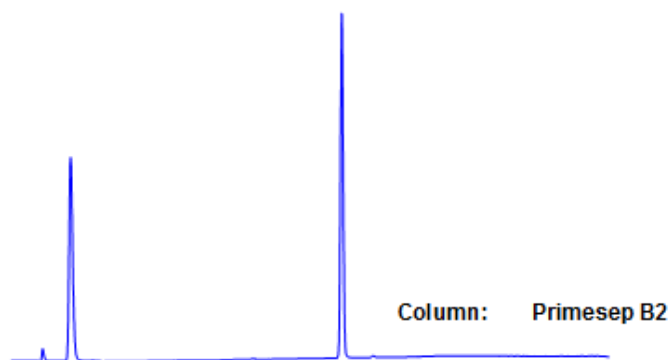


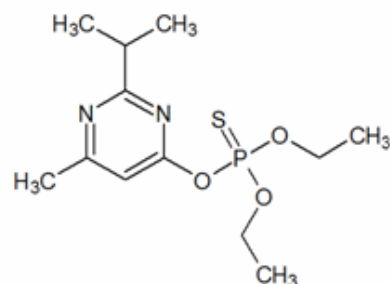
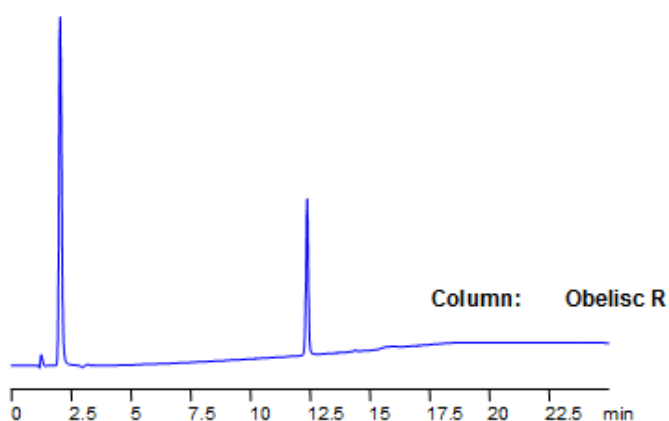
HPLC Separation of Diazinon on Obelisc and Primesep Mixed-Mode Columns

<https://sielc.com/Application-HPLC-Separation-of-Diazinon-on-Obelisc-and-Primesep-Mixed-Mode-Columns>

Chromatogram



Dimensions: 150 x 2.1mm
Mobile Phase: MeCN gradient from 10% to 70% in 15 min, 7 min hold. AmAc pH 4.5 from 20 mM to 50 mM in 15 min, 7 min hold
Flow: 0.4 ml/min
Detection: UV 250 nm



Description

Diazinon is a nonsystemic organophosphate insecticide developed in the early 1950's. It was heavily used as an all-purpose indoor/outdoor home pesticide, but was banned for home use in 2004. The thiophosphoric ester in diazinon can form toxic phosphine gases and phosphorus oxides. The EURL (European Union Reference Laboratory), included diazinon as a target pesticide for the EUPT-CF9 a proficiency test for cereals and feedingstuff that require multi-residue methods. Primesep B2 and Obelisc R were used to retain carbofuran and separate it from impurities. Primesep B2 contains embedded basic ion-pairing groups and Obelisc R contains embedded ionic and hydrophobic groups which can assist in fine tuning separations. Method is LC/MS compatible and can be used as a general approach for analyzing diazinon, other organophosphate insecticides, and dozens of other pesticides.

Method Parameters

Mobile Phase	Gradient MeCN – 10-70%, 15 min, 7 min hold
Buffer	Gradient AmAc pH 4,5- 20-50 mM, 15 min, 7 min hold
Flow Rate	0.4 ml/min
Detection	UV, 250 nm
Class of Compounds	Insecticide, Herbicide, Fungicide, Hydrophobic, Ionizable
Analyzing Compounds	Diazinon

HPLC Column Used

Obelisc R, 2.1×150 mm, 5 µm, 100A

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