

# Application note

## Extraction of EPA method 8141A analytes organophosphorous compounds

<b>Field</b>	Environmental
<b>Sample</b>	EPA Method 8141A Analytes
<b>Matrix</b>	Aqueous
<b>Extraction Disk</b>	BAKERBOND™ Speedisk™ H <sub>2</sub> O-Phobic DVB Extraction Disk, Product Number JT80686
<b>Safety and Protective Equipment</b>	Goggles and face shield, lab coat and apron, proper gloves, vent hood, Type B fire extinguisher. Read and follow all label and SDS instructions and warnings.
<b>Sample Preparation</b>	Add surrogate standards to 1.0 liter L sample.
<b>Extraction Disk Conditioning</b>	Assemble a Speedisk™ extraction station. (Other types of vacuum stations can also be used.) Mount disk on vacuum port. Add 20 mL of methylene chloride and soak 1 minute. With vacuum, pull through. Repeat using 20 mL of acetone and then 20 mL of organic-free water.
<b>Sample Addition</b>	Add the water sample under full vacuum. Dry the disk by maintaining full vacuum (about 25" Hg) for about 5 minutes.
<b>Sample Elution</b>	Remove the BAKERBOND™ Speedisk™ extraction disk from the extraction station and insert a suitable collection tube. Add 5.0 mL of acetone to the empty sample bottle to rinse. Then add it to the disk. Let this soak for 1 minute and pull through. Next, rinse the empty sample bottle with 10 mL methylene chloride. Add it to the disk and soak for 1 minute before pulling through. Adding the methylene chloride straight to the disk, repeat the methylene chloride elution twice.
<b>Drying and Concentration of Eluate</b>	The eluate can be dried by passing it through a drying column or a glass funnel containing anhydrous sodium sulfate or by adding anhydrous sodium sulfate to the collection tube. Rinse the collection tube and the sodium sulfate with methylene chloride. Combine the extract and washings and concentrate to 1 mL under nitrogen gas or by using a Kuderna-Danish concentrator. Solvent exchange if necessary for analysis. Note: Do not concentrate below 0.5 mL
<b>Final Analytical Method</b>	Capillary GC-FPD or NPD (Refer to SW-846 EPA Method 8141A.)

### Product List

Description	Cat. No.
BAKERBOND Speedisk™ H <sub>2</sub> O-Phobic DVB Extraction Disk	JT80686
Acetone, ULTRA RESI-ANALYZED™	JT9254-2
Methylene Chloride, ULTRA RESI-ANALYZED™	JT9264-3
Sodium Sulfate, Anhydrous, Granular, ULTRA RESI-ANALYZED™ Reagent	JT3375-1
Water, BAKER ANALYZED™ HPLC	JT4218-3



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