

Application Note

EXTRACTION OF POLYCYCLIC AROMATIC HYDROCARBONS FROM DRINKING WATER EPA METHOD 550.1

Field	Environmental
Sample	EPA Method 550.1 Analytes
Matrix	Drinking Water and Ground Water
Extraction Disk	BAKERBOND™ Speedisk™ C18 High Capacity Extraction Disk, Product Number 8055-07
Safety and Protective Equipment	Goggles and face shield, lab coat and apron, proper gloves, vent hood, Type B fire extinguisher.
Sample Preparation	To a 1 L sample, methanol (2–5 mL) may be added to obtain a more homogeneous sample. Mix well.
Extraction Disk Conditioning	Assemble a Speedisk™ extraction station. (Other types of vacuum stations can also be used.) Mount disk on vacuum port. Wash the disk with 10 mL of methylene chloride. Let soak 1 min minute and pull through. Continue to pull air through for 1 minute. Add 10 mL of methanol to the disk. Pull through only a small amount of methanol and stop the vacuum. Let the disk soak for 1 minute. Pull through most of the remaining methanol, leaving 3–5 mm of methanol above the surface of the disk. From this point to the end of the sample addition, do not allow the disk to run dry. Repeat using 10 mL of organic-free water.
Sample Addition	NOTE: The larger solvent volumes (10 mL vs. 5 mL) are used in this application note since the recommended disk is High Capacity.
Sample Elution	Add the water sample under full vacuum. Dry the disk by maintaining full vacuum (about 25" Hg) for about 5 minutes.
Drying And Concentrating The Eluate	Dry the combined extracts, which are in the collection vial, by passing them through 10 g of anhydrous sodium sulfate. (Additional anhydrous sodium sulfate may be used if the extract is still cloudy.) Rinse the collection tube and the sodium sulfate with two 5 mL portions of methylene chloride. Combine the extract and washings and concentrate to 0.5 mL under nitrogen gas. NOTE: Do not concentrate below 0.5 mL
Final Analytical Method	HPLC-UV/Fluorescence (Refer to EPA Method 550.1.)

Product List

Product Number	Description
8055-07	BAKERBOND Speedisk™ C18 High Capacity Extraction Disk
9264	Methylene Chloride, ULTRA RESI-ANALYZED™
9255	Acetonitrile, ULTRA RESI-ANALYZED™
9263	Methanol, ULTRA RESI-ANALYZED™
4219	Water, ULTRA RESI-ANALYZED™
3375	Sodium Sulfate, Anhydrous, Granular, ULTRA RESI-ANALYZED™ Reagent



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