

### AN227 - ISOLATION OF ACIDIC, NEUTRAL, AND BASIC DRUGS FROM URINE

<b>SPE columns:</b>	SC-6-ABN-200 (ABN sorbent is available in other formats and bed weights upon request. Process with Breakwood vacuum manifolds VM-12, VM-16 or VM-24)
<b>Sample Preparation:</b>	Add 2mL of a 0.1 M Phosphate buffer (ph 6.0) to a 4mL sample of urine. Sample pH should be 6.0*
<b>Cartridge Conditioning:</b>	2mL of methanol 2mL of water 2mL of 0.1 M phosphate buffer (pH 6.0) <b><u>Do not allow column to run dry.</u></b>
<b>Sample Addition:</b>	Add to column. Aspirate samples through the column at 1mL/minute.
<b>Cartridge Wash:</b>	2mL of water, 1mL of 1 N acetic acid, and 2mL methanol Air dry column under vacuum for 10 minutes at 15 in. of Hg. 2mL hexane. Place collection tubes in manifold.
<b>Analyte Elution:</b>	3.0mL of 15% ethyl acetate in methylene chloride. (Remove collection tubes from manifold). For GC, inject 1-2µL of eluate. For GC/MS, dry eluate under nitrogen at <40°C, derivative and reconstitute in appropriate solvent. Inject 1-2µL.
<b>Wash Columns:</b>	2mL methanol. Air dry column under vacuum for 10 minutes at 15in. of Hg.
<b>Elute Analytes(s): (basic drugs)</b>	3.0mL of 2% ammonium hydroxide in 80/20 methylene chloride / isopropanol**. Evaporate to dryness at 40°C. (be careful not to evaporate amphetamines) dissolve in 100 µL methanol, inject 1-2 µL.

\*Adjust sample pH with 0.1 N HCL or 0.1 NaOH as needed.

\*\*Make new elution solvent daily.

**Note:** *Since sample matrix interferences and concentrations may vary from sample to sample, it may be necessary to adjust the wash and elution solvent/solution strength and/or volume to optimize isolation.*

**Thank you for choosing Breakwood Enterprises. We look forward to serving you again. If you have any questions, please contact us.**

[info@breakwood-ent.com](mailto:info@breakwood-ent.com)  
440-472-0001  
33333 Station St. #1675, Solon OH44139