

**SPE**Solid Phase  
Extraction

# Application Note

World Leaders in Sample Preparation

**SPE225****ISOLATION OF BARBITURATES FROM URINE****Spe-ed™ Cartridge**

Cat. No. 2713- *Spe-ed* Scan ABN, 3mL; or  
Cat. No. 2714- *Spe-ed* Scan ABN, 6mL; or  
Cat. No. 3713- *Spe-ed* Scan ABN, LRC, 15mL; or Cat. No. 3723-  
*Spe-ed* Scan ABN LRC w/ cap, 15mL. Process with *Spe-ed*  
**Mate.**

**Sample Preparation**

Add 2mL of 0.1 M Phosphate buffer (pH 6.0) to a 4mL sample of urine. Adjust Sample pH should be 6.0\*\*

**Cartridge  
Conditioning**

2mL of methanol.  
2mL of water.  
2mL of 0.1 M phosphate buffer (pH 6.0)  
DO NOT ALLOW CARTRIDGE TO RUN DRY!

**Sample Addition**

Add to cartridge. Aspirate samples through the cartridge at 1mL per minute.

**Cartridge Wash**

2mL of water.  
1mL of 1 N acetic acid.  
Air dry cartridge under vacuum for 10 minutes  
At 15in. Hg.  
2mL of hexane.

**Analyte Elution**

3mL of 5% ethyl acetate in methylene chloride.  
For GC, inject 1 to 2uL of eluate. For GC /MS, dry eluate under nitrogen at <40°C. Reconstitute with 100uL ethyl acetate. Inject 1 to 2uL.

\*Make new elution solvent daily.

\*\*Adjust sample pH with 0.1 N HCl or 0.1 NaOH as necessary.

**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.

The logo for Applied Separations, featuring the company name in a bold, italicized sans-serif font with horizontal lines above the word 'Applied'.

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