

SPESolid Phase
Extraction

Application Note

World Leaders in Sample Preparation

SPE251**ISOLATION OF OPIATES FROM URINE
BY ENZYMATIC HYDROLYSIS**

Spe-ed™ Cartridge	Cat. No. 2713 Scan ABN 3mL; or Cat. No. 2714 Scan ABN 6mL; or Cat. No. 3713 Scan ABN LRC 15mL; or Cat. No. 3723 Scan ABN LRC w/Cap 15mL. Process with <i>Spe-ed Mate</i> .
Sample Preparation	Enzymatic Hydrolysis (for concentrations less than 500mg/mL) 2mL sample, add 4mL 4.5pH acetate buffer. Add standard, add 10,000 F units of patella vulgatta. Heat one hour at 68°C. Cool. Add 4mL 1.0 M7.0 pH phosphate buffer.
Cartridge Conditioning	2mL of methanol. 2mL of water. DO NOT ALLOW CARTRIDGE TO RUN DRY!
Sample Addition	Add sample to cartridges. Aspirate samples through the cartridges at 1mL/minute.
Cartridge Wash	2mL of water; 1mL of 1N acetic acid; 2mL of methanol. Air-dry cartridge under vacuum for 10 minutes at 15in. Hg.
Analyte Elution	Add 3mL of 1% triethylamine in 80/20 mix of methylene chloride / isopropyl alcohol. Aspirate through the cartridge slowly. 2% ammonium hydroxide can be substituted for the 1% triethylamine.
Derivatization	Add 50µL BSTFA (with 1% TMCS) to residue under N ₂ and cap. Mix. Heat for 20 minutes at 70°C. Inject 1 – 2 µL.

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".

930 Hamilton Street · Allentown, PA 18101
610-770-0900 · 610-740-5520 (fax)
www.appliedseparations.com