

# SPE

Solid Phase  
Extraction

# Application Note

World Leaders in Sample Preparation

## SPE213

## ISOLATION OF SULFONAMIDES FROM TISSUE

### Spe-ed™ Cartridge

Cat. No. 2323-SCX Benzenesulfonic acid, 500mg/3mL.

### Sample Preparation

Weigh 10gms. Of ground tissue (pH 5.5) into a 100mL beaker. If pH above 5.5, reduce the pH to 5.5 with acetic acid/ water (1:1 v\v). add 25mL of chloroform / acetone (1:1).

Stir and then place beaker in an ultrasonic bath for 10 minutes. Keep bath temperature < 40°C.

Filter solvent through filter paper. Repeat procedure again with a second 25mL chloroform/ acetate extract.

**Combine extracts and add 5mL of acetic acid.**

### Cartridge Conditioning

2 x 3mL of hexane

2 x 3mL chloroform/acetone (1:1) containing 5% acetic acid

**DO NOT DRY CARTRIDGE**

### Sample Addition

Aspirate prepared sample through cartridge slowly.

### Cartridge Wash

5mL water.

5mL methanol.

Air-dry cartridge for 10 minutes. Pass a stream of ammonia vapor through the cartridge for 10 minutes.

### Analyte Elution

3mL of methanol. Collect eluate in polypropylene collection tube.

Evaporate eluate to dryness, dissolve residue in mobile phase.

Applied  
Separations

930 Hamilton Street · Allentown, PA 18101  
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www.appliedseparations.com

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**HPLC**

**Column**

8um C8, 4mm x 250cm.

**Mobile phase**

Acetonitrile/ 10mmol/ L ammonia acetate buffer pH 4.6  
(3:7 v/v)

**Detection**

UV 254

**Flow Rate**

1.5mL / minute

**Injection Volume**

20uL

**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.*

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