Name of Procedure:

Extractions and Separations
Separation of Cocaine Base and Cinnamoyl Cocaines

Suggested Uses:

This procedure is used to remove cinnamoyl cocaines from cocaine base. Additionally this procedure will remove nicotinamide, procaine, caffeine, stearic acid, sodium bicarbonate, sodium borate, and ▫field test blue▫. This procedure is less efficient at removing anhydroecgonine methyl ester and will not remove methylbenzoate which appear similar to cinnamoyl cocaines by infrared analysis.

Apparatus Needed to Perform Procedure Including Preparation of Reagent:

Fume hood
Eye protection
Gloves
Laboratory coat
Hexane
Test tube
Pipets, glass, disposable
Pipet bulb
Vortex mixer
Small beaker
Heat source
Graduated cylinder
50ml beaker
Glass stirring rod
Potassium permanganate
Funnel
Reagent bottle
Spatula
Water

Formula for Preparing Reagent:

Note: This is the same reagent as used in Procedure A-6 for Potassium Permanganate Color Test.

1. Weigh out 0.3 gram of potassium permanganate.

2. Dissolve in 30 milliliters water.

3. Pour into a reagent bottle.

4. Properly label reagent bottle.

Quality Control Check:

A quality control check of this reagent will be performed using a known standard of a barbiturate and following the Procedure A-6.

Expiration Date of Chemical Reagent:

No expiration date. Reagents need to be properly contained in a sealed container and stored in a cool place.

Application of Procedure on Evidence:

1. Crush 30 milligrams of sample and place in test tube.

2. Add 3 milliliters hexane to tube and vortex 30 seconds.

3. Add 1 milliliter of potassium permanganate reagent and vortex 1 minute.

4. Squirt approximately 10 milliliters of deionized water through mixture.

5. Allow layers to separate.

6. Remove hexane layer.

7. Evaporate hexane over moderate heat to obtain cocaine base.

Safety Concerns:

Keep top of test tubes pointed away from face or covered while vortexing to avoid splashing in eyes or face.

Literature References:

Kerr, K., ◘A Simple Procedure for Separating Cocaine Base from Procaine Base◘, **MICROGRAM**, Vol. XXIII, NO. 5, MAY 1990, pp. 93-94.

Moffat, A. C., ed., **Clarke◘s Isolation and Identification of Drugs**, Pharmaceutical Press, London, 1986, p. 1170.

Casale, J. F. and Klein, R. F. X. ◘Illicit Production of Cocaine◘, **Forensic Sci Rev**, 5:95, 1993.