Name of Procedure:

Preliminary Tests
Barium Chloride Reagent

Suggested Uses:

The barium chloride reagent consists of a solution of barium chloride in water. This reagent forms a white precipitate of insoluble barium sulfate with sulfate ions.

Apparatus Needed to Perform Procedure Including Preparation of Reagent:

Fume hood
Gloves
Eye protection
Laboratory coat
Pipet with bulb
Graduated cylinder
50ml beaker
Glass stirring rod
Barium Chloride
Water
Funnel
Reagent bottle
Porcelain spot plate
Spatula

Formula for Preparing Reagent:

1. Weigh out 3.0 grams of barium chloride.

2. Dissolve in 27.0 milliliters of water.

3. Pour solution into a reagent bottle.

4. Properly label reagent bottle.

Quality Control:

A quality control check of this reagent will be performed using a known standard of sodium sulfate and following the application procedure listed below.

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. Place approximately 0.1 milligram sample in a culture tube (6 X 50mm) with a spatula.

2. Dissolve the sample in distilled water.

3. Add 1-2 drops of barium chloride solution.

4. Observe for formation of a precipitate.

5. Record results.

Safety Concerns:

Always wear eye protection and laboratory coat when preparing this reagent. A laboratory coat should be worn when using this reagent.

Literature References:

Moffat, A. C., ed., **Clarke's Isolation and Identification of Drugs**, 2nd Ed., Pharmaceutical Press, London, 1986