Name of Procedure:

Preliminary Tests
Potassium Permanganate Reagent

Suggested Uses:

The Potassium Permanganate reagent consists of a solution (purple) of potassium permanganate in water. Compounds containing reactive double bonds and other functional groups react to form a brown color.

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
Potassium permanganate
Funnel
Reagent bottle
Porcelain spot plate
Spatula
Water
Culture tube (6 X 50mm)

Formula for Preparing Reagent:

1. Weigh out 0.3 gram of potassium permanganate.

2. Dissolve in 30 milliliters water.

3. Pour into a reagent bottle.

Formula for Preparing Reagent (Continued):

4. Properly label reagent bottle.

Quality Control Check:

A quality control check of this reagent will be performed using a known standard of an opiate 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. Add 1-2 drops of potassium permanganate solution.

3. Observe for discoloration of potassium permanganate reagent color.

4. 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 for color tests.

Literature References:

Moffat, A. C., ed., **Clarke's Isolation and Identification of Drugs**, 2nd Edition, Pharmaceutical Press, London, 1986, p. 1170.

This procedure has been used in the Drug Chemistry Section since 1971.