

Name of Procedure:

Preliminary Tests
Koppanyi Reagent

Suggested Uses:

The Koppanyi reagent consists of filter paper treated with (soaked in) cobalt acetate, methanol and glacial acetic acid and a solution of 5% isopropylamine in methanol. Barbiturates (5,5-disubstituted malonylureas) and other compounds will produce a positive color formation in less than 30 seconds.

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
Filter paper
Scissors
Glacial acetic acid
Cobalt acetate
Methanol
Wide mouth bottle with top
Funnel
Reagent bottle
Porcelain spot plate
Spatula

Formula for Preparing Reagent:

1. Dissolve 0.1 gram of cobalt acetate in 100 milliliters of methanol.
2. Add 0.2 milliliter of glacial acetic acid.
3. Soak filter paper in the solution and allow to completely dry.

Formula for Preparing Reagent (continued):

4. Cut filter paper into approximately 1 inch squares.
5. Store filter paper in a wide mouth bottle with top.
6. Make a separate solution of 5% isopropylamine in methanol.
7. Pour into reagent bottle.
8. Properly label reagent bottles.

Quality Control Check:

A quality control check of this reagent will be performed using a known standard of a barbiturate 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 a small amount (approximately 0.1 milligram) of sample on a piece of the Koppanyi paper.
2. Press the sample into the paper well with a spatula.
3. Place a drop of 5% isopropylamine solution on the edge of the Koppanyi paper and allow the drop to meet the sample.
4. Observe the color produced.
5. Record results.

Safety Concerns:

Always wear eye protection, gloves and a laboratory coat when preparing this reagent.

Eye protection and a laboratory coat should be worn when using this reagent for color tests.

Literature References:

Butler, William P., **Methods of Analysis**, IRS publication #341, December 1966, p.106.