

Drug Chemistry Section
Drug Chemistry Procedure Manual
Effective Date: September 1, 1996

Name of Procedure:

Preliminary Tests
Secondary Amine Reagent #2

Suggested Uses:

This is a color test used to distinguish methamphetamine from amphetamine. Methamphetamine and other secondary amines form blue-violet compounds with this reagent, while amphetamine and other primary amines yield a slow pink to cherry red color.

Apparatus Needed to Perform Procedure Including Preparation of Reagent:

Fume hood
Gloves
Eye protection
Laboratory coat
Pipet with bulb
Graduated cylinder
Beakers
Glass stirring rod
Sodium nitroprusside
Acetaldehyde
Sodium carbonate
Funnel
Reagent bottles
Porcelain spot plate
Spatula
Culture tubes (6 X 50mm)

Formula for Preparing Reagent:

Reagent A:

1. Dissolve 1 gram of sodium nitroprusside in 100 milliliters of water.
2. To 90 milliliters of this solution, add 10 milliliters of acetaldehyde.
3. Pour solution into a reagent bottle.

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Formula for Preparing Reagent (continued):

4. Properly label reagent bottle.

Reagent B:

1. Dissolve 2 grams of sodium carbonate in 100 milliliters of water.
2. Pour solution into a reagent bottle.
3. Properly label reagent bottle.

Quality Control:

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

Expiration Date of Chemical Reagent:

Reagent A must be prepared monthly and refrigerated.

Reagent B has no expiration date. Reagent B needs to be properly contained in a sealed container and stored in a cool place.

Application of Procedure on Evidence:

1. With a spatula, add a small amount of the suspected material to a culture tube or clean well on a spot plate.
2. Add 1 drop of Reagent A, then 2 drops of Reagent B.
3. Observe the color change.
4. Record results.

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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:

Feigl, Fritz, **Spot Tests in Organic Analysis**, Elsevier Publishing Co., 1956, p. 260.