

DRUG CHEMISTRY SECTION TECHNICAL PROCEDURE MANUAL		
Procedure A-13	Preliminary Tests Methanolic Potassium Hydroxide Reagent	
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**Name of Procedure:**

Preliminary Tests  
Methanolic Potassium Hydroxide Reagent

**Suggested Uses:**

This reagent is a useful preliminary test for cocaine. Cocaine will react with this reagent to form methyl benzoate, a compound with the characteristic odor of oil of wintergreen.

**Apparatus Needed to Perform Procedure Including Preparation of Reagent:**

Fume hood  
Gloves  
Eye protection  
Laboratory coat  
Pipet with bulb  
Graduated cylinder  
250ml beaker  
Glass stirring rod  
Potassium hydroxide  
Methanol  
Funnel  
Reagent bottle  
Porcelain spot plate  
Spatula

**Formula for Preparing Reagent:**

1. Weigh out 5 grams of potassium hydroxide into a beaker.
2. Add 100 milliliters of methanol and stir until dissolved.
3. Pour solution into reagent bottle.
4. Properly label reagent bottle.

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### **Quality Control:**

A quality control check of this reagent will be performed using a known standard of cocaine 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 1-2 drops of the reagent into a clean well on a spot plate.
2. With a spatula, add approximately 0.1 milligram of the unknown powder to the reagent in the spot plate.
3. Carefully sniff to detect if the wintergreen odor is present.
4. 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.

Potassium hydroxide is a strong caustic and may cause severe chemical burns.

### **Literature References:**

Jungreis, Ervin, **Spot Test Analysis**, John Wiley & Sons, 1985, p. 80.

This procedure has been used in the Drug Chemistry Section since 1987.