

DRUG CHEMISTRY SECTION TECHNICAL PROCEDURE MANUAL		
Procedure C-13	Thin Layer Chromatography Fast Blue B Visualizing Reagent	
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**Name of Procedure:**

Thin-Layer Chromatography  
Fast Blue B Visualizing Reagent

**Suggested Uses:**

A visualizing reagent or detection reagent must be used in Thin-Layer Chromatography if the compound or compounds are not distinguishable by their own color. This spray reagent is primarily used to visualize cannabinoids found in marijuana. Cannabidiol gives an orange color, cannabinol gives a violet color, and delta-9-tetrahydrocannabinol gives a red color when reacted with this reagent.

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

Fume hood  
Graduated cylinder  
Eye protection  
Balance  
Laboratory coat  
Gloves  
Spray bottle  
Air compressor  
Funnel  
Spatula  
Bottles  
Tygon or rubber tubing  
Fast Blue B salt  
Water

**Formula for Preparing Reagent:**

1. Weigh out 1 gram of Fast Blue B salt.
2. Dissolve the Fast Blue B salt in approximately 100 milliliters of water.
3. Place in spray reagent bottle.
4. Properly label spray reagent.

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### **Quality Control Check:**

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

### **Expiration Date of Chemical Reagent:**

The Fast Blue B spray reagent will decompose after two weeks.

### **Application of Procedure on Evidence:**

1. Place well-dried TLC plate in hood.
2. Activate hood.
3. Using the air compressor and spray bottle, apply a fine mist of the visualizing reagent to the TLC plate.
4. Apply the visualizing reagent until the spot corresponding to the known standard appears.
5. Compare the known standard and the compound in question for their size, shape, color and position on the TLC plate.
6. Record the results of your observation.

### **Safety Concerns:**

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

Eye protection and laboratory coat should be worn when visualizing the TLC plate.

Fast Blue B is a suspected carcinogen.

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**Literature References:**

Randerath, Kurt, **Thin Layer Chromatography**, New York, Academic Press, 1968.

Moffat, A.C., **Clarke's Isolation and Identification of Drugs**, 2nd Ed., The Pharmaceutical Press, 1986, pp. 166-177.

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