

**Name of Procedure:**

Polarized Light Microscopy  
Microscopic Examination of Hashish Using Concentrated Sodium Hydroxide

**Suggested Uses:**

Identification of plant particles from marijuana.

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

Polarizing microscope  
Fume hood  
Gloves  
Eye protection  
Laboratory coat  
Spatula  
Microscope slides  
Weighing paper  
Graduated cylinder  
Glass stirring rod  
Glass beaker  
Reagent bottle  
Distilled water  
Sodium hydroxide

**Formula for Preparing Reagent:**

For concentrated Sodium Hydroxide Solution:

1. Measure out 25 milliliters of water and pour into a beaker.
2. Add enough sodium hydroxide to obtain saturation.
3. Pour solution into a reagent bottle.
4. Properly label reagent bottle.

**Quality Control Check:**

Check the reagent with a known standard of marijuana plant particles using the application procedure listed below.

**Expiration Date of Chemical Reagent:**

The reagent can be used until depletion provided it is stored in an airtight reagent bottle.

**Application of Procedure on Evidence:**

1. Place small sample of suspected material on a microscope slide.
2. Place a drop of the sodium hydroxide reagent on the suspected material.
3. Observe the mixture under a relatively low magnification (approximately 10X).
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 the microcrystalline test.

Always dispose of used microscope slides in a broken glass container.

**Literature References:**

Tested and confirmed through use in the North Carolina State Bureau of Investigation Drug Chemistry Laboratory, since 1973.