

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

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.

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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.