

RhoMeOH

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RhoMeOH

1 INTRODUCTION/SCOPE

RhoMeOH (combination of fluorescent dyes Rhodamine 6G and MBD in methanol) is a fluorescent dye used by FBI Laboratory Friction Ridge Discipline personnel to make cyanoacrylate-developed latent prints more visible on all colors of non-porous and semi-porous surfaces. [Note: "RhoMeOH" and "RMO" are approved abbreviations for this process.]

2 STANDARDS AND CONTROLS

See *Processing Overview* ([FRD-300](#)).

3 LIMITATIONS

Fluorescent compounds will suffer from loss of fluorescent intensity over time; as such, fluorescent prints will be captured as soon as is practicable.

4 EQUIPMENT

- 4-(4-methoxybenzylamino)-7-nitrobenzofurazan (MBD)
- Rhodamine 6G (dye content $\geq 99\%$)
- Methanol
- Forensic Light Source(s)

5 PROCEDURE

5.1 Solution Preparation

Personnel will prepare the solutions as follows. Alternative amounts may be prepared, provided the same ratio of chemicals mixed is retained.

5.1.1 Rhodamine 6G stock solution

- A. Combine:
1. Rhodamine 6G - 1 g
 2. Methanol - 1000 mL
- B. Stir until Rhodamine 6G dissolves.

5.1.2 MBD stock solution

- A. Combine:
1. MBD – 0.4 g
 2. Methanol - 800 mL
- B. Stir until MBD dissolves.

5.1.3 RhoMeOH working solution

- A. Combine in any order:
1. Rhodamine 6G stock solution – 7.2 mL
 2. MBD stock solution - 9 mL

- 3. Methanol – 983.8 mL
- B. Mix thoroughly.

5.2 Application

- A. Personnel will complete the following steps in order:
 - 1. Apply solution to item by spraying, dipping, squirting, or painting.
 - 2. Allow item to dry completely.
 - 3. View using forensic light source at wavelengths in the 445 nm to 540 nm range. (Refer to *Forensic Light Sources (FRD-305)*).
 - i. Note : Viewing with 365 nm is optional as prints visualize at that wavelength but may be weaker than with the range cited above.
- B. Digital capture and photography, as applicable.

5.3 Storage

- A. Rhodamine 6G stock and MBD stock solutions must be stored in dark glass bottles.
- B. RhoMeOH working solution can be stored in a metal can, plastic bottle or dark or clear glass bottle.

5.4 Shelf Life

- A. Rhodamine 6G stock and MBD stock solutions each have an indefinite shelf life.
- B. RhoMeOH working solution has an indefinite shelf life provided the reagent checks are satisfactory.

6 SAFETY

See [FBI Laboratory Safety Manual](#) for appropriate information.

7 REVISION HISTORY

Revision	Issued	Changes
00	05/16/2022	New Document Issued.