

Leucocrystal Violet

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Leucocrystal Violet

1 INTRODUCTION/SCOPE

- A. Leucocrystal Violet is used by FBI Laboratory Friction Ridge Discipline personnel to enhance visual prints or develop latent prints deposited in blood.
- B. The process can be used on all surfaces but is primarily used on non-porous items.

2 STANDARDS AND CONTROLS

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

3 LIMITATIONS

The background of porous items may become stained during the process and obscure information.

4 EQUIPMENT

- Distilled water
- Leucocrystal Violet (dye content $\geq 90\%$)
- Sodium Acetate
- Hydrogen Peroxide (3% solution)
- 5-Sulfosalicylic Acid (purity $\geq 99\%$)

5 PROCEDURE

5.1 Solution Preparation

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

5.1.1 Leucocrystal Violet Working Solution Preparation

- A. Combine:
 - Hydrogen Peroxide (3% solution) - 1000 mL
 - 5-Sulfosalicylic Acid - 20 g
 - Sodium Acetate - 7.4 g
 - Leucocrystal Violet - 2 g
- B. Stir until Leucocrystal Violet dissolves (approximately 30 minutes).

5.2 Application

- A. Personnel will apply Leucocrystal Violet working solution to the item.
 1. The area may be blotted with a tissue or paper towel as needed.
 2. As Leucocrystal Violet is prone to over-development, personnel will use the finest mist possible to avoid overdevelopment and running of bloody print.
- B. Capture appropriate friction ridge details as applicable (digitally or photographically).

5.3 Storage

Leucocrystal Violet working solution must be stored in a dark bottle.

5.4 Shelf Life

Leucocrystal Violet working solution has a 30-day shelf life provided the reagent checks are satisfactory.

6 SAFETY

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

7 REVISION HISTORY

Revision	Issued	Changes
02	07/15/2021	Replace Latent Print Units with Friction Ridge Discipline. Minor wording changes. Section 1 - add last sentence. Section 2 - added limitation. Section 3 - streamline equipment list. Section 4.1.1 - added ratio allowance. Re-organization and re-numbering of sections. Section 5 - added Preamble reference.
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