

TENNESSEE BUREAU OF INVESTIGATION
Forensic Services Division

Violent Crime Response Team Standard Operating Procedures
Amido Black (Water Based)



10. VCRT Procedures

10.7 Amido Black (Water Base)

10.7.1 Scope

Amido Black (Naphthol Blue Black) is a protein sensitive dye used to stain blood-contaminated latent prints yielding a blue-black color. The water base formula is recommended for painted surfaces. This staining process will not develop latent prints deposited in other body secretions.

Evidence:

Any non-porous surfaces where latent prints may be deposited in blood, preferably surfaces light enough in color to produce adequate contrast after the staining process.

10.7.2 Definitions

Refer to VCRT 11.0 Definitions and Abbreviations

10.7.3 Precautions

Samples for DNA testing should be collected prior to the procedure.

Universal precautions shall be taken when handling items that contain blood.

Amido black will not develop areas of latent prints in the normal constituents of perspiration.

Cyanoacrylate can inhibit the staining process.

Surfaces bearing blood must be completely dry prior to staining.

Care should be taken to not directly spray the area with bloody friction ridges so potentially fragile blood evidence is not damaged. Instead, the area with bloody friction ridges should be flooded with amido black that is then allowed to cover the area containing bloody friction ridges.

10.7.4 Chemicals and Reagents

Naphthol Blue Black
Citric Acid
Kodak Photo Flo 600 Solution



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Distilled Water

Mixing Procedure

Citric Acid Stock Solution

38 g Citric Acid
2 L Distilled Water

1. Combine the above ingredients.
2. Place on a stirring device and mix until Citric Acid is dissolved.

Developer Solution

1 L Citric Acid Stock Solution
2 g Naphthol Blue Black
2 ml Kodak Photo Flo 600 Solution

1. Place the liter of Citric Acid Stock Solution on a stirring device.
2. Slowly add 2 grams of Naphthol Blue Black and stir for approximately 30 minutes.
3. Add Photo Flo 600 and stir lightly.

Rinse Solution

1 liter Citric Acid Stock Solution

Shelf Life

No expiration date is provided, however a control must be successfully performed prior to use on evidence and recorded in the notes

10.7.5 Equipment and Supplies

Balance
Beakers
Graduated Cylinder
Magnetic Stirrer
Stirring Bar or other Stirring Device
Clear or Dark Storage Bottles
Trays
Control Slides
Safety Equipment (gloves, lab coat, safety glasses)

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10.7.6 Procedure

Controls

Amido black is applied to a glass slide containing a print deposited in blood obtained from an individual within the laboratory. These will be prepared in advance.

A positive result is the known blood staining a blue-black color.

A negative result occurs when there is a lack of color change with the known blood.

A control must be successfully performed each time amido black is prepared and documented in the reagent log book of the Latent Print Unit.

A control must be successfully performed before applying amido black to evidence. This control must be documented in the VCRT Members notes.

Procedure

Comparison photographs should be made before enhancement with Amido Black is attempted. See VCRT 10.34 Comparison Photography for additional information.

1. Apply the developer solution to the evidence by dipping, spraying or with a squirt bottle. (Completely cover the target area)
2. Apply the rinse solution.
3. Repeat Steps 1 and 2 until optimum detail and contrast are obtained.
4. A final rinse of distilled water may be used on the evidence.
5. Allow the evidence to dry at room temperature.
6. Photograph any identifiable latent prints and include a ruler.

10.7.7 Results and Conclusions

Latent prints of comparable value should be marked and photographed with a ruler included. Refer to VCRT 10.34 Comparison Photography for additional information.