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# Amido Black

## TECHNICAL NOTES

## **Background**

Amido Black, also known as Naphthalene Blue-Black or Naphthalene Black 12B, is a protein dye, sensitive to the protein in blood. It will stain the protein residue in a blood-contaminated latent print and turn a blue-black color. It will not stain the normal constituents found in latent print residue so it should only be used in the case of blood-contaminated latent prints to be successful.

## Safety

As with all chemicals, always read the MSDS (material safety data sheet) to learn about the safe handling and health hazards of each chemical. Gloves and protective clothing should be worn when using Amido Black. It should be mixed and used in a fume hood or with an appropriate respirator. Amido Black is not a carcinogen. Some of the solvents used to mix it are hazardous and/or flammable. Use the proper safety precautions in handling and disposal.

## **Mixing Instructions**

#### **Working Solution**

1 gram Amido Black 50 ml Glacial Acetic Acid 450 ml Methanol

Weigh out 1 gram of Amido Black and place it in a one-liter glass beaker. Place it on a magnetic stirrer. Add 50 ml of Glacial Acetic Acid and stir. When completely mixed, add 450 ml of Methanol and stir for at least 30 minutes. When completely mixed, store the solution in a glass bottle. Properly label the bottle.

#### **Glacial Acetic Acid-Methanol Solution**

100 ml Glacial Acetic Acid 900 ml Methanol Pour 100 ml of Glacial Acetic Acid into a glass storage bottle. Add 900 ml of Methanol. Stir the solution until mixed. Properly label the bottle.

#### **Glacial Acetic Acid-Distilled Water Solution**

50 ml Glacial Acetic Acid 950 ml Distilled Water

Pour 50 ml of Glacial Acetic Acid into a glass storage bottle. Add 950 ml of Distilled Water. Stir the solution until mixed. Properly label the bottle.

#### **Processing Instructions**

## Step One: Fix the blood on the surface of the evidence.

- Pour enough methanol to cover the item of evidence into a clean, glass tray.
- Immerse the evidence in the methanol for about one hour.
- Cover the tray to prevent evaporation. Replenish the methanol in the tray, if necessary.
- Discard the methanol after use.
- If the evidence cannot be immersed in methanol, heat the surface with a lamp, heater or oven for at least one hour. Be careful of the risk of fire.

#### **Step Two: Using the working solution.**

- Pour enough working solution to cover the item of evidence into a clean, glass tray.
- Soak the evidence in the working solution for about two to three minutes or until the latent prints become a blue-black color.
- If the solution in the tray becomes heavily contaminated, it should be replaced with fresh solution.
- If the solution is not badly contaminated, it can be poured back into the bottle and used again.

#### **Step Three: First rinse**

- Pour enough Glacial Acetic Acid-Methanol solution to cover the item of evidence into a clean, glass tray.
- Immerse the evidence into the solution and rock the tray gently.
- When excess dye has been removed from the background, take the evidence out of the rinse.
- If the solution in the tray becomes heavily contaminated, it should be replaced with fresh solution.
- Discard after use.

#### Step Four: Second rinse

- Pour enough Glacial Acetic Acid-Distilled Water solution to cover the item of evidence into a clean, glass tray.
- Immerse the evidence into the solution and rock the tray gently for about 30 seconds.
- If the solution in the tray becomes heavily contaminated, it should be replaced with fresh solution.
- Discard after use.

#### **Step Five: Drying and Photographing**

- Allow the evidence to dry at room temperature.
- Photograph any useful latent prints.

#### **Sequential Processing**

Treatment with Physical Developer may be done after Amido Black to try to improve the developed latent prints. It is suggested to photograph any latent prints developed with Amido Black before treating the evidence with Physical Developer.

#### **Photography**

Photography of latent prints developed with Amido Black should not pose any problems if the surface background is a light color. If the surface is a dark color but will fluoresce, it may be beneficial to use fluorescence examination to enhance the photographic contrast.

#### **Additional Reading**

**Advances in Fingerprint Technology** edited by Dr. Henry Lee and Dr. R. E. Gaensslen **Friction Ridge Skin: Comparison and Identification of Fingerprints** by James F. Cowger

Manual of Fingerprint Development Techniques by the British Home Office, 2ND edition

## **Ordering Information**

Catalog No. 1-0046 ...... Amido Black, 25 grams