



Sudan Black

INTRODUCTION:

Sudan Black is a dye that stains the fatty components of sebaceous sweat to produce a blue-black image. While Sudan Black is less sensitive than some other latent print development techniques, it is particularly useful on surfaces contaminated with grease, food residue, or dried soft drink deposits. It is also quite useful as a dye stain for cyanoacrylate developed prints. Sudan Black may be used on non-porous surfaces such as glass, metal, and plastics particularly if these surfaces are contaminated with greasy or oily materials. Sudan Black is not suitable for use on porous surfaces like paper, cardboard, or raw wood. Its principal advantages are its relatively inexpensive cost and its effectiveness on surfaces so badly contaminated that powders are inappropriate.

PRECAUTIONS

- Before using this kit, consult the appropriate Material Safety Data Sheets (MSDS)
- Sudan Black is relatively insensitive to uncontaminated fingerprints.
- It is a very messy process to use in that it stains many surfaces and cleanup may be difficult.
- This product may interfere with forensic examination of questioned documents and body fluids including DNA profiling, fibers, hairs, paint, and most other forensic examinations.
- When preparing or using Sudan Black, wear a lab coat, non-porous gloves, and eye protection..
- Use in a well-ventilated area or, if used for long periods of time, in a fuming chamber/hood.
- The working solution of Ethanol and Sudan Black is flammable and should be kept in a lockable, labeled storage cabinet made of fire-resistant material.

PREPARATION

Prepare a working solution of Sudan Black as follows:

1. Weigh out 15g of Sudan Black and place it in a clean, 2 liter, glass beaker.
2. Add one (1) liter of Ethanol to the beaker. Stir with a plastic stirring rod.
3. Measure out 500ml of distilled water and add to the beaker. Stir with a plastic stirring rod. A black working solution will be produced.
4. Transfer the working solution to a clean, dry, labeled, glass bottle with a tight-fitting screw top. Note: Transfer all of the solid matter not dissolved into the solution. The working solution has indefinite shelf life.

PROCEDURE

Methods of Application

The Sudan Black working solution may be applied in two ways. Be certain to shake the storage bottle prior to use.

Tray Development

1. Pour out a sufficient amount of working solution into a clean tray large enough to accommodate the item(s) to be examined.
2. Allow the item to soak for two to three minutes.
3. Rinse the article under cool, running tap water.
4. The working solution in the tray may be returned to the storage bottle. Be certain to transfer any solid material as well.

Spray Development

1. For large items, either spray on the working solution or pour it over the surface, catching the run off in a tray.
2. Continue this process until latent prints become visible.
3. Rinse under cool, running tap water.



Sudan Black is a dye that stains the fatty components of sebaceous sweat to produce a blue-black image as shown above.

TECHNICAL CONSIDERATIONS

Surfaces treated with Sudan Black should be permitted to air dry prior to critical examination. Do not apply heat to accelerate the drying process. Repeating the development process may enhance weak prints. While it may be possible to lift latent prints developed with this method, the results are often disappointing. Photography is the most reliable method of preserving the developed latent prints. In any case, if you decide to lift the prints, be certain to photograph them first.

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