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TECHNICAL INFORMATION

Sudan Black

Catalog Nos. LV504, LV504L

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.

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PRECAUTIONS

- Before using this kit, consult the appropriate Material Safety Data Sheets (MSDS) found on our website at www.sirchie.com/support.
- Sudan Black is relatively insensitive to uncontaminated fingerprints.
- Dye will stain many surfaces, cleanup can be difficult.
- All physiological fluid and DNA processing should be completed prior to using this product.
- 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 stored in a proper flammable cabinet when not in use.

PREPARATION (LV504)

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. Immerse the item into the solution for a minimum of 2 minutes.
3. Rinse by dipping in a tray of distilled water or by placing the article under cool running tap water.
4. Allow item to dry completely.
5. Process can be repeated to possibly improve results.

Spray Development (LV504L)

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.

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.

References:
Chesapeke Bay Division IAI website:
http://www.cbdiai.org/Reagents/sudan.html <March 6, 2015>

US Department of Justice. Chemical Formulas and Processing Guide for Developing Latent Prints. FBI Laboratory Division, Latent Fingerprint Section (2000).