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TECHNICAL INFORMATION

Acid Yellow 7 Aqueous Solution

Catalog No. LV517L

INTRODUCTION

Acid Yellow 7 is a reagent used for staining fingerprints and footprints made in blood. Prints in blood are colored yellow after treatment with a dye solution. They then fluoresce under blue/blue-green light. Acid Yellow 7 should not be used on porous surfaces like paper, cardboard, cloth, or carpet. It works very well on non-porous surfaces like linoleum, glass, tiles, painted surfaces, or PVC floor covering. Acid Yellow 7 is available in powdered form (No. LV517) and in a reagent solution (LV517L).

PROCEDURE

Blood Fixative	• 50g	5-Sulfosalicylic Acid Dehydrate
	• 1000ml	Distilled water

Special Note: *Collect samples and complete any presumptive testing of any blood found at the crime scene prior to using the Acid Yellow 7 Solution as it may interfere with certain blood tests.*

Before staining, prints in blood should be fixed to prevent them from running (causing loss of detail) when the staining solution is applied. In general, a fixative is applied before any staining solution except with Leuco Crystal Violet, which contains fixative.

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Fixing the Blood Print

Fixing is not required, but is recommended. A solution of 5% 5-sulfosalicylic acid would be misted (pump sprayer) over the enhancement area. After fixing, allow 15 minutes for the fixative to dry. When the blood is relatively fresh, you will notice that fixing changes its color from dark red to dark brown.

Staining the Blood Print

Once the print is fixed, it can be stained with Acid Yellow 7 Solution. Use the pump spray to mist the solution over the blood print. DO NOT SPRAY DIRECTLY AT PRINT, hover over the space being treated, spraying parallel to the surface. After spraying, allow the stain to set, usually 5-10 minutes.

Rinse the Print

After the stain has set, rinse the area to remove background. This can be done with water or white vinegar. If the print is on a horizontal surface, gently pour water across the stained print and use absorbent paper to carefully blot the residual dye away from the background.

LV517L Acid Yellow on tile normal light

LV517L Acid Yellow on tile with 455nm illumination and viewed through amber filter

Expected Results

Prints will be yellow in color, but will fluoresce a bright yellow under alternate light sources, such as BLUEMAXX™ or megaMAXX™, in the blue to blue/green range of 455nm to 470nm. View with an orange barrier filter. Photograph with a comparable orange filter on the lens. Be certain to include a scale in all photographs.

References

1. Enotes.com Inc. *World of Forensic Science/Alternate Light Source Analysis,* <http://www.enotes.com/forensic-science/alternate-light-source-analysis>. February 7, 2011
2. Sears, V.G.; Butcher, C.P.G.; Fitzgerald, L.A. *"Enhancement of Fingerprints in Blood, Part 3: Reactive Techniques, Acid Yellow 7, and Process Sequences."* Journal of Forensic Identification 2005, Vol. 55, No. 6, p. 741-763.