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	Document Manager: Tracee McIntosh	Approved By: Jeffrey Nye

3.9 Hungarian Red



Processed bloody print on raw wood

3.9.1 Introduction

Hungarian Red is also referred to as Acid Fuchsin. Hungarian Red is a protein indicator particularly sensitive to those proteins present in blood. Hungarian Red processing results in a fluorescent product and is therefore very useful when processing dark colored items that may have impressions in blood on their surface. While other techniques for the enhancement of blood impressions are available they may pose serious health hazards and many of them have a dark colored product which is not useful on dark surfaces. Hungarian Red is a safe, permanent procedure that can be used on non-porous surfaces. Hungarian Red appears to be particularly well suited for processing raw wood, though is less successful with metal. While Hungarian Red has been shown to have a limited impact on subsequent DNA examination, caution should be used and it should be applied after serological examination when possible.

Hungarian Red should not be used on paper, bed sheets, upholstery, or any other absorbent surface. (TriTech Forensics product information, 6/4/214)

3.9.2 Safety Considerations

Hungarian Red/Acid Fuchsin
 Glacial Acetic Acid or distilled water
 5-Sulfosalicylic Acid

This procedure involves hazardous materials. Glacial Acetic Acid and Sulfosalicylic Acid may be flammable and corrosive and shall be handled with care. This procedure does not purport to address all of the safety problems associated with its use. It is the responsibility of the user of this procedure to

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establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use. Proper caution should be exercised and the use of personal protective equipment should be considered to avoid exposure to dangerous chemicals. Consult the appropriate MSDS for each chemical prior to use.

3.9.3 Preparations

Hungarian Red/Acid Fushin is available for purchase as a pre-mixed solution.

3.9.4 Instrumentation

See General Instrumentation

3.9.5 Minimum Standards and Controls

The Standards and Controls for Hungarian Red consists of testing a swab with a deposited area of known blood. The Biology unit may be able to assist with obtaining such a sample. The resultant reaction will be a fluorescent product and should be viewed at 515-600nm with a red or green barrier filter.

3.9.6 Procedure or Analysis

All applications should be done in a fume hood.

3.9.6.1

Hungarian Red solution is applied by immersing small items in the solution for four (4) minutes. Larger items that cannot be immersed may be carefully wrapped in tissue or filter paper or paper towel and the solution sprayed onto the paper towel until thoroughly saturated. Care should be used to not move the paper towel around on the item during processing.

3.9.6.2

The item is then rinsed with tap water and allowed to dry.

3.9.6.3

The developed impressions are viewed and photographed at 515-600nm with a red or green barrier filter.

3.9.6.4

The developed impressions may be lifted with a white gel lift. The gel lift impressions should be left on the item for 15-30 minutes and then must be photographed immediately at 515-600nm with a red or green barrier filter.

3.9.7 Interpretation of results

The blood impressions contrast will be intensified and additional detail not previously visible may be revealed with processing. Dried impressions which lose contrast may be re-immersed in the second rinse solution and photographed.

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3.9.8 Minimum Quality Standards and Controls

See Standards

Shelf life is approximately one year.

3.9.9 Other Related Procedures

Acid Yellow

3.1.10 References

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