

| | | |
|------------------|----------------------|---------------------|
| Section F | Hungarian Red | Subsection 8 |
|------------------|----------------------|---------------------|

**THIS PROCEDURE HAS NOT BEEN APPROVED FOR USE.
NOTIFICATION OF APPROVAL WILL BE PROVIDED AT A LATER
DATE.**

Name of Procedure:

Hungarian Red

Suggested Uses:

Hungarian Red may be utilized in conjunction with a laser and/or alternate light source to develop latent impressions in blood. This technique may be used non-porous and some porous surfaces. Hungarian Red will cause the blood on an item to fluoresce.

Equipment Needed to Perform Procedures:

- A - Rubber apron and rubber gloves
- B - Tissue or filter paper
- C - Glass beakers
- D - Heating Mantle
- E - Brown or dark shatter proof storage container (one (1) gallon)
- F - Measuring cylinders
- G - Camera (35 mm, 2 1/4, MP-4, CU5, TC III)
- H - Fume hood
- I - Laser Filters
- J - Mist sprayers
- K - Laser goggles

| | | |
|------------------|----------------------|---------------------|
| Section F | Hungarian Red | Subsection 8 |
|------------------|----------------------|---------------------|

L - White Gelatin Lifters

Chemicals Needed For Preparation of Chemical Solution(s):

A- Hungarian Red Blood stain

B - Twenty grams of Sulfosalicylic acid

C- Ten (10) ml of Glacial Acetic Acid

Formula/Directions for Preparation of Chemical Solution(s):

Sulfosalicylic Acid solution:

1. Place twenty (20) grams of Sulfosalicylic acid in a large beaker.
2. Fill the beaker with one (1) liter of distilled water and place magnetic follower in the beaker. Using the magnetic stirrer, stir the solution until all of the reagent is dissolved.
3. Place the solution in a squirt bottle until needed.

Acetic Acid Solution:

Note: Distilled water may be used in place of the Acetic Acid solution.

1. Place ten (10) ml of Glacial Acetic Acid in a large beaker.
2. Fill the beaker with one- hundred ninety (190) ml of distilled water and place magnetic follower in the beaker. Using the magnetic stirrer, stir the solution for five minutes.
3. Place the solution in a squirt bottle until needed.

Working Solution - Hungarian Red Solution:

1. Presently the Hungarian Red is available in a premixed solution and will no require prior mixing of this solution.

| | | |
|------------------|----------------------|---------------------|
| Section F | Hungarian Red | Subsection 8 |
|------------------|----------------------|---------------------|

2. The solution should be placed in a squirt bottle to apply to an item of evidence.

Processing Procedures for Application to Item(s) of Evidence:

Prior to spraying the item of evidence with any of the solutions, the bloody impression must be dried or cured. This procedure is necessary to keep the print from dissolving when the solution is applied.

1. Cover the blood impression with filter or tissue paper.
2. Spray the Sulfosalicylic acid solution onto the tissue paper. The tissue paper should remain in contact with the impression during this step. Allow the tissue paper to remain on the item of evidence for two (2) minutes (For larger thick stains, the tissue should be left for a longer period of time).
3. Rinse the area of interest with distilled (demineralized water should be substituted when available).
4. Apply the Hungarian Red solution with a squirt bottle to the item of evidence ensuring the entire area is covered.
5. Wash the excess solution with the Acetic Acid solution (Distilled water may be substituted in the step). Immediately blot any excess solution with the tissue paper.
6. Allow the item to air dry (A hair dryer may be used to expedite the process).
7. When completely dry, place a white gelatin lifter over the impression. Leave the gelatin lifter on the impression for fifteen (15) to thirty (30) minutes.
8. Remove the gelatin lifter and view the lift with the laser or alternate light source. The most appropriate wavelengths are within the 515 to 560 nm with a green filter and 600 nm with a red filter.

Note: The item of evidence may be reprocessed with Hungarian Red as the solution is nondestructive.

| | | |
|------------------|----------------------|---------------------|
| Section F | Hungarian Red | Subsection 8 |
|------------------|----------------------|---------------------|

Note: The developed impression on the lift must be photographed within a couple of hours as the impression will fade over a period of time.

Steps to Preserve Developed Impressions:

The most appropriate methods to preserve developed impressions is through photography, using the proper techniques (See Photographic Equipment/Procedures) and/or electronically recording the impressions (See Image Processing). The impressions developed with Hungarian Red **must** be photographed within a couple of hours as they are not permanent on the lift and will fade over a period of time.

Safety Concerns:

The toxic and carcinogenic properties of Hungarian Red have not been thoroughly investigated and should be handled with extreme care.

The Glacial Acetic Acid and Sulfosalicylic Acid solutions may be flammable and corrosive and should be handled with extreme care.

All mixtures and application of the solutions should be conducted in a fume hood with rubber gloves and aprons.

Storage and Location of Chemicals and Solutions:

Hungarian Red be stored in the original shipping container or a squirt bottle until needed. The Glacial Acetic Acid and Sulfosalicylic Acid solutions should be stored in squirt bottles away from sunlight.

Shelf Life:

Hungarian Red solution - Up to one (1) year.

Glacial Acetic Acid and Sulfosalicylic Acid - Up to ninety (90) days.

Other Information:

| | | |
|------------------|----------------------|---------------------|
| Section F | Hungarian Red | Subsection 8 |
|------------------|----------------------|---------------------|

Care should be taken when applying the solutions as blood prints could be easily destroyed if the proper procedures are not followed.

Hungarian Red is a stain for blood cells and is not a peroxide.

The impressions will only fluoresce when viewed with a laser or alternate light source on the gelatin lifts.

Hungarian red may be used in conjunction with other blood impression processes.