

Recovering Fingerprints for Evidence



- The best piece of equipment is a good flashlight.
- Suitable surface - a relatively smooth surface on which friction ridges deposit body fluids which can be developed and recovered with a lifter or can be photographed.
- Unsuitable surface - a rough, porous, wet, or greasy surface on which friction ridges, while they deposit body fluids, do not allow the use of powders or other developing substances to be used.
- Latent print. An impression of the friction ridges of the fingers or hand made by the secretions of body fluids, when contact is made to a surface - invisible to the naked eye.
- Patent Prints. An impression of the friction ridges of the fingers or hand made by the contact with a substance on a surface in which the friction ridges are molded into that substance. Patent prints are usually visible to the naked eye.
- Temperature effects recovery of latent fingerprints.

Methods used to recover latent fingerprints:

- Powder Dusting
- Fluorescent and Bichromatic Powder dusting + Forensic Light Source.
- Magna Powder Dusting (use of a metal filings - paper and paper products).
- Wet method (certain surfaces only, i.e. sticky side of tape).
- Super-glue fuming. (Cyanoacrylate method).
- Iodine fuming. (For paper and Cardboard type surfaces).
- Ninhydrant spray + heat. Used for paper especially checks.
- Photography and alternative light sources.
- There are others - but these are most common.

Using the Cyanoacrylate Method (Super-glue) to Develop Latent Fingerprints

In order to use this method, special equipment is necessary. Somewhat expensive if purchased from an evidence supply company, but dirt cheap if you use your imagination and scrounging ability.

You will need a small aquarium (5 to 10 gal size) a plexi-glass lid, something from which to hang the item in question in the tank, a coffee cup warmer and several containers of super-glue. These are the basic items you will need to use this method.

General:

- Use good brushes
- Less powder is better
- Do not “overwork a print. You can erase it or wipe it away.

- There is less of a tendency to “wipe” away a print using silver powder.
- Be careful not to “paint” the latent. With black powder, if too much is used both the ridges and the area in between are covered with the powder resulting in an unusable latent.
- Temperature (cold) effects the ability to develop latent fingerprints. Fir example, if you have to process a car and the ambient temperature is below 50 degrees, have the car towed to a heated garage where it can warn up (ideally - 6 to 8 hours). The oils of transferred to surfaces from the ridges of the fingers freezes up and does not allow powders to adhere as they do at room temperature (68 degrees).
- Temperature also effects objects such as knives, bottles, cans, et al. Warm them up if below 50 degrees.
- When dusting an area for latents - remember the PUBLIC/PRIVATE areas rule. If a suspect’s latents are potentially in a *public* area - an area that the public is allowed to be in, then latents of the suspect recovered from this area ane considered a non-provable (because the individual would be allowed to be in that area. However, if the suspect’s latents are potentially in a *private* area - an area restricted to the public, then the latents recovered from this area is a provable that the suspect was present in an area prohibited to him.

When in doubt, *take the item and send it to the lab for processing.*

Notes: