Purpose: To detect and enhance latent or patent imprints using fingerprint powders.

Responsibility: Forensic Science Examiners assigned to the Imprint Unit are responsible to follow the guidance of this procedure.

Safety: All proper personal protection equipment will be used as appropriate.

Procedure:

Materials:

1. Contrasting color fingerprint powders
2. Fingerprint powder brush
3. Large transparent adhesive lifters
4. Large white backed adhesive lifters
5. Large black backed adhesive lifters
6. Large transparent gelatin lifters
7. Large white backed gelatin lifters
8. Large black backed gelatin lifters
9. Oblique lighting source

Procedure:

1. Physical examination of item to identify area(s) where suspect imprint(s) are located.
2. Use of oblique lighting of item to identify area(s) where suspect imprint(s) are located.
3. Photograph the imprint(s) using the procedures outlined in IM SOP-4 Photography.
4. Apply powder to suspect imprint(s) to develop detail.
5. Remove excess powder surrounding imprint(s).

6. Re-photograph imprint(s) using the procedures outlined in IM SOP-4 Photography.

7. Using appropriate lift product, lift imprint(s).

8. The lift(s) should be photographed (see IM SOP-4 Photography).

9. Secure lift(s) in proper container.

10. Mark container with appropriate identification markings, including case number, item number and description.

11. Sub-itemize the lift(s) in JusticeTrax and place a barcode on the evidence container. Lifts will be returned to the submitting agency.

Quality Assurance:
When a chemical/reagent is utilized for the first time, the examiner opening/preparing the chemical or reagent will ensure that the container is properly labeled as to its contents, its safety information (NFPA or GHS) and the ability of the performance of the chemical/reagent (see section a. below). The examiner will also place the date opened/prepared and his/her initials on the container. Most chemicals/reagents are purchased as packaged kits.

Per GL-21 General Laboratory Equipment, chemicals/reagents are considered "equipment" as they can influence the correct performance of laboratory activities (i.e. creating test impressions or enhancement). The very first control test impression developed with a newly opened or prepared chemical/reagent will demonstrate the ability of the performance of that lot of chemical/reagent. A log will be kept of this control test impression. The log will include the chemical/reagent name, the date opened/prepared, the lot number, the initials of the analyst who opened/prepared it, if the control test

impression was acceptable and the manufacturer's expiration date, if there is one. This information will be logged on the Reagent Log form (QR-IM Reagents/Chemicals). Once the chemical/reagent has been found to be acceptable, a colored dot will be initialed and dated and "OK" or "OK for use" will be written on it. This dot will be taped to the chemical/reagent bottle and will signify the chemical/reagent is okay to use.

Before any chemical/reagent is used, every analyst should check for this sticker. If it is not present, the above stated procedure must be followed.

Magnetic Powder Quality Control:

Quality Control for powders consists of minimizing contamination and exposure to moisture. The only quality control check on powders will be conducted on the initial opening of the stock container. To perform the quality control test, the new lot of magnetic powder will be applied to a rubber stamp. The stamp will then be pressed against a gel lift. If the impression of the stamp made in powder is visible, this result is considered acceptable and this lot of powder may be used for casework.

For casework, a small amount of powder should be removed from the stock or working container for each use. Powder removed for use should NEVER be added back to a container. Excessive moisture may cause clumping of the powder. Do not expose powders to high humidity or moisture. Keep all containers closed as much as possible.

The date the original stock container is opened shall become the lot number of the powder. The lot number will be in the following six digit month, day, year format: mmddyy (i.e. 010115). Smaller working containers of powder may be made from the stock container. Any working container will be labelled with the name and lot number of the stock container.. The shelf life of development powders is indeterminable; however, if clumping of the powder is observed, it shall be discarded.

Sources of Error: N/A

References: See bibliography.