Section C	Fluorescent Powders	Subsection 2

Name of Procedure:

Fluorescent Powders

Suggested Uses:

To develop latent impressions on non-porous item of evidence thus making them visible to the naked eye. This technique will enable the analyst to lift, photograph or electronically capture the impression and preserve for future comparisons. The use of fluorescent powders may be effective on dark, rough and grainy surfaces when used in conjunction with a laser or alternate light source.

Equipment Needed to Perform Procedures:

A - One (1) of a variety of the following brushes or wands:

1. Camel hair brush - Assorted sizes
2. Zypher brush - Fiberglass
3. Feather duster brush
4. Magna Wands - Used with magnetic powders

B - Tape dispenser containing one (1) of a number of commercially prepared transparent, frosted or polyethylene lifting tapes (Various sizes are available).

C - Commercially Prepared Powders

1. Blitz-Green or Blitz-Red Magna powder (Non-Metallic surfaces)
2. Redwop or Greenwop Powders

Preparation of Chemical Solution(s):

Not Applicable.

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

Not Applicable.

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

1. Dip a fingerprint brush or wand into a powder that offers contrast to the surface on which the print may be present. Normally the fluorescent powders should be reserved for dark or rough surfaces.

2. Tap away the excess powder from the brush.

3. Lightly brush the powder over the surface of the object which is being processed using the tips of the brush only. Carefully brush the surface until the ridge detail or impression starts to appear. Some latent impressions are light in color and will not appear dark because the adhesive qualities are weak. One effective way to develop these impressions is to breathe moisture onto the area of the impression, allow to dry and lightly powder again (It is not necessary to let the moisture dry when using magna powders).

4. Once the latent impression becomes visible, it should be "dressed" by gently brushing away all of the excess powder adhering to the impression.

5. Once an area has been powdered with a fluorescent powder, view the area with a laser or alternate light source even if the impression is not visible to the naked eye. Often impressions will fluoresce once the Laser or alternate light source is used.

Steps to Preserve Developed Impressions:

Photography of Developed Impressions:

1. It is recommended that each developed impression be photographed prior to any attempts to lift or process the area further, if feasible. This will assist the analyst at a later time if the impression is destroyed or damage occurs with further processing.

2. A variety of camera equipment is available to adequately record the impressions (See Photographic Equipment). Utilize a scale in all photographs if possible.

3. If the impression fluoresces with the use of an alternate light source, it may be preserved with photography in the same manner as laser dye stained impressions.

Lift Method:

1. The developed impression may be lifted from the surface by pressing the sticky side of the commercially prepared lift tape against the impression and pulling it away in one steady motion. A piece of tape large enough to the entire area is covered should be utilized with ample margins around the impression. Fold over the end of the tape for a working hold.

2. Pull the tape from the roll in one continuous motion to prevent streaks in the tape. Apply the tape evenly to avoid any possible wrinkles or trapped air which may damage the impression. This may be accomplished by holding one end of the tape and applying the other end at the left or right margin of the latent impression and carefully smoothing out the remainder of the tape.

3. The tape should be removed from the surface bearing the latent impression by firmly holding one end of the tape and gently lifting in one non-stop motion.

4. The tape is then placed on a sheet of black paper of black lift card which of contrasting color in the same manner as the tape was applied to the surface. When several prints are developed, side by side, or grouped close together, lift all on one (1) piece of tape if possible. Wider tapes should be used for multiple prints or place two (2) or more strips of tape over the impression and lift together.

5. Label each lift with the appropriate case numbers, item number, date, analyst initials, where the lift(s) originated and any other cross reference information necessary.
6. The lifts may also be placed under the laser or alternate light sources and photographed. Often this procedure will enhance the impression and reveal additional areas of ridge detail.

Electronically Recorded Impressions:

1. Latent impressions may also be electronically recorded with a computerized system such as the Image Processing System (See Image Processing).

2. This process may be necessary with faint or difficult impressions on certain surfaces. This practice often will allow the analyst to record impressions which may have been unrecoverable in the past.

Safety Concerns:

Limited safety precautions are associated with the use of powders if used properly. A dust mist mask should be used with any powder processing and changed frequently if processing of large areas is necessary.

Storage and Location of Chemicals and Solutions:

Powders - May be stored in the original shipping containers or place in larger jars or containers if necessary.

Shelf Life:

Powders - Indefinite

Tapes - Test prints should be lifted if the age of the tape is not known.

Other Information:

Various other processing techniques may be used after an item has been processed with powders. It is generally recommended that the super glue technique be used prior to powdering any item of evidence.
Regular powders and fluorescent powders may be used in conjunction with each other.