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Name of Procedure:

Super Glue Fuming Wands

Suggested Uses:

To develop latent impressions on various types of non-porous surfaces. Super Glue should be used as a preliminary process when utilizing a number of subsequent processing techniques. The super glue wands offer a portable means of super gluing an item as well an alternative method for processing large, stationary or bulky items.

Equipment Needed to Perform Procedures:

A - 3M Fingerprint Visualization System (FIVIS)

B - Fuming cartridge

C - Isobutane fuel

Chemicals Needed For Preparation of Chemical Solution(s):

Not Applicable

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

Not Applicable

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

Operating Procedures:

1. The are a number of buttons, levers and windows which the operator must be aware of prior to conducting this procedure:

    a. Ignition button

    b. On/Off button
    c. Control lever

d. Fuel window

e. Fuel refill port

f. Cartridge extraction tool

2. Fueling Procedure:

Note: Always wear gloves when refueling the system as contact with the skin can cause frostbite.

a. Make sure the on/off button is in the off position.

b. With the nozzle of the refill can pointing down, press the nozzle into the refill port on the end of the wand handle. The gas will overflow the port when the wand is full.

c. Look at the window just below the control lever to see if the wand has been properly fueled. You should see a clear liquid through the window.

d. Move the on/off button and allow Isobutane to flow for approximately two (2) seconds and then turn to the off position.

3. Ignition Instructions:

a. Set the lever at 4 and set the on/off button to the on position.

b. Push the ignition button slowly and hold for approximately three (3) seconds after it clicks. Release the ignition button and look into the barrel of the heat tip. If the wand heat source is glowing the system is ready to use. If there is no glow, set the control to the next lowest setting and repeat the process. If there is no glow after the second attempt to ignite continue to set the control lever to the next lowest setting until ignition is achieved. Consult the owners manual for continued unsuccessful attempts to ignite the system.

c. The wand temperature can be controlled by moving the gas control toward the off position.

d. To turn the system off move the on/off button to the off position until it clicks.

4. Latent impression development:

a. After ignition of the wand is complete, grasp one disposable fuming cartridge with the cartridge extractor tool. While pinching the disposable cartridge tightly with the extractor tool, place the small end of the disposable cartridge on the end of the fuming wand. Make sure it fits tightly to prevent it from falling off during processing.

b. Within second a vapor stream will begin to appear. Place the wand control lever at a setting that will create a vapor stream approximately one-half to one inch long before the vapor billows. The more heat which is generated will produce additional vapors.

c. The fuming wand should be held approximately six (6) to nine (9) inches from the item to be processed. Avoid holding the wand too close to the item as this may cause over super gluing.

d. Once the item has been super glued, allow to air dry for a few minutes prior to proceeding.

e. Developed impressions may be recorded in an acceptable manner or additional processes may be utilized to further develop impressions (ie: powders, laser dyes, etc.).

Note: Allow the wand and cartridge to cool to room temperature before storing the unit.

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 item of evidence can be powder processed after super glue fuming and lifted with lift tape or photographed to preserve the impression (See Powder Processing).

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The super glue fuming process is vital to any subsequent treatment with fluorescent dyes and laser and/or alternate light source examinations (See Fluorescent Dyes and Laser/Alternate Light Sources).

Safety Concerns:

Always wear gloves when refueling the system as contact with the skin can cause frostbite. Allow the wand and cartridge to cool to room temperature before storing the unit.

Never touch the fuming end of the wand during processing as the tip area becomes extremely hot.

Storage and Location of Chemicals and Solutions:

Fuming system and cartridges - Store in the plastic boxes provided.

Shelf Life:

Not Applicable

Other Information:

Not Applicable