

UV detection methods

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Ultraviolet markers and powders are available for both identification of objects and security purposes. Paper or cardboard items such as money, bank checks, messages and letters, and packages, can be marked with, normally invisible, fluorescent materials for later identification with an ultraviolet lamp. Items such as door knobs, drawer handles, locks, or other objects can be dusted with ultraviolet sensitive powders which rub off onto the hands and clothing of individuals tampering with such objects.

Some body fluids, both from humans and animals can also be detected using ultraviolet light.

Materials

Ultraviolet lamp, long wave, portable model preferred.
Fluorescent materials such as invisible fluorescent crayons, invisible marking pen, and invisible theft detection powder or paste
Brush for applying theft detection powders

Safety Precautions

This procedure uses long wave ultraviolet lamps which are less likely to cause eye injury and has little effect on the skin. However, proper precautions must be observed. Ultraviolet light can be harmful to the eyes. Avoid looking directly at the ultraviolet light source. Do not subject your skin to prolonged contact with ultraviolet light.

There are no safety hazards associated with the invisible crayons, pens, inks, or powders.

Procedure

Use an invisible fluorescent crayon or pen to place identification marks on various objects such as dollar bills, coins, keys, or any wood, metal, or glass object. The crayon, which is wax based, can be used on most objects, porous or non-porous where its light white color will not be noticeable. The pen, which contains a solvent based fluid, works best on porous materials such as paper and cloth and is generally not visible in normal light.

Theft detection powders and pastes are used to coat objects which a suspect may handle such as small or large objects, doorknobs, handles to safes, desk drawers, or file cabinets, etc. When a suspect handles any treated object, the powder is transferred to their hands and, often, to their clothes. Use a soft brush to apply the powder to objects or surfaces.

If desired, objects can be marked and passed around a group of individuals. Depending on whether objects were marked for identification, or were treated with powders, an ultraviolet lamp can be used to detect the objects or determine which individuals may have handled the objects. It is best to dim the room lights and use the ultraviolet lamp to detect the objects.

To check the hands of an individual who may have come in contact with theft detection powder, have the person place their hands into a cardboard carton, to shield them from room light, and use the ultraviolet lamp to examine the individual's hands.

If your pet dog or cat has marked their territory in your house or apartment, you can use an ultraviolet lamp to inspect floors, carpets, or other materials for animal stains from urine or other bodily fluids. It is best to do this procedure in a darkened room at night.

Similar stains can be located on bedding materials in homes, apartments, and hotels.