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TapeGlo™ Fluorescent Dye

TECHNICAL NOTES

Background

TapeGlo™ is a fluorescent dye for developing latent prints on the adhesive side of tape. After treating the tape with TapeGlo™, a Forensic Light Source or laser is used to visualize the latent prints. TapeGlo™ is a pre-mixed solution and is safe to use in an office without the use of a fume hood. The solution is water based and is a slight irritant to the eyes and perhaps to the skin of sensitive people. TapeGlo™ can be reused. Pour the excess solution from the tray back into the bottle and store at room temperature in a dark bottle. TapeGlo™ has an indefinite shelf life; however, it should be replaced annually to insure potency.

Safety

As with any chemical process, read and understand the Material Safety Data Sheet on all the chemicals involved. Practice normal industrial hygienic procedures of wearing lab coats, protective gloves, and goggles, if there is any risk of splashing the solution into the eyes. If the solution is going to be used for long periods of time or on large surfaces, it is recommended that it be done with adequate ventilation.

Processing Instructions for Plastic-Backed Adhesive Tape

Select a clean, plastic or glass tray that is large enough to accommodate the length of the tape. Place the tape in the tray with the adhesive side up. Pour enough TapeGlo™ to cover the tape. Allow the TapeGlo™ to remain on the tape for about 10-15 seconds. Remove the tape from the tray and rinse in water. Distilled water is preferred but not required.

Alternate Process One

Use a disposable foam applicator or an inexpensive camelhair brush to gently brush TapeGlo™ onto the adhesive surface. Rinse and examine.

Alternate Process Two

Place TapeGlo™ liquid in a pump spray bottle and spray TapeGlo™ onto the adhesive surface. Be sure that the adhesive surface is completely covered with a thin layer of TapeGlo™. Rinse and examine.

Processing Instructions for Cloth or Paper-Backed Adhesive Tape

Place the tape in a container of fresh, clean water. Distilled water is preferred. Allow the tape to become saturated, about 30 seconds. Select a clean, plastic or glass tray that is large enough to accommodate the length of the evidence tape. Place the tape in the tray with the adhesive side up. Pour enough TapeGlo™ to cover the tape. Allow the TapeGlo™ to remain on the tape for about 10-15 seconds. Remove the tape from the tray and rinse in water. Distilled water is preferred but not required.

Alternate Process One

Use a disposable foam applicator or an inexpensive camelhair brush to gently brush TapeGlo™ onto the adhesive surface. Rinse and examine.

Alternate Process Two

Place TapeGlo™ liquid in a pump spray bottle and spray TapeGlo™ onto the adhesive surface. Be sure that the adhesive surface is completely covered with a thin layer of TapeGlo™. Rinse and examine.

Examination

Dim the room lights and examine the tape for latent prints by using the 450 nm setting on a Forensic Light Source. View the tape while wearing orange goggles. It is not necessary to allow the tape to dry before viewing it under a light source.

Photography

To photograph the fluorescent-developed latent prints, duplicate the arrangement by which the best contrast was viewed with the eye. Include a fluorescent scale in the photograph next to the evidence. Use the wavelength, the color of viewing goggles and the angle of the light source to obtain the best photograph.

Additional Reading

Manual of Fingerprint Development Techniques by the British Home Office, second edition

Fingerprint Detection by Fluorescence Examination by the British Home Office

An Introduction to Lasers, Forensic Lights and Fluorescent Fingerprint Detection Techniques by Dr. E. Roland Menzel