**SWGFAST**

Glossary - Latent Print Processing

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**A-NAPHAFLAVONE**  
Chemical used in fixing Iodine processed friction ridge detail.

**ACETONE**  
Solvent used as a carrier in reagents; also used as a cleaning agent.

**ACETONITRILE**  
Solvent used as a carrier in reagents; also used as a cleaning agent.

**ACID FUSCHIN**  
Reddish protein stain used to enhance bloody friction ridge detail.

**ALTERNATE LIGHT SOURCE (ALS)**  
Device that produces a variety of selectable wavelengths of light used in forensic examinations. See *FLS* (Forensic Light Source).

**AMIDO BLACK**  
Blue-black protein stain used to enhance bloody friction ridge detail. See *Naphthalene Black*.

**AQUEOUS**  
Water based.

**ARDROX**  
Fluorescent yellow dye used with UV light to visualize cyanoacrylate ester fumed friction ridge detail.

**BASIC FUSCHIN**  
Fluorescent dye used with selected wavelengths of light to visualize cyanoacrylate ester fumed friction ridge detail. See *Rosaniline chloride*.

**BASIC YELLOW 40**  
Fluorescent yellow dye used with selected wavelengths of light to visualize cyanoacrylate ester fumed friction ridge detail. See *Panacryl Brilliant Flavone 10GFF*. See *Maxilon Flavone 10GFF*.

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Disclaimer: The use of products and vendor names is done in the interest of providing information only. No commercial endorsement by SWGFAST should be inferred.
BIOHAZARD
Biological agent or condition (as an infectious organism or insecure laboratory conditions) that constitutes a hazard.

CHEMICAL HAZARD
Chemical agent or condition that constitutes a hazard.

CITRIC ACID
Chemical used in the preparation of Physical Developer and other friction ridge development reagents.

COOMASSIE BLUE
Blue protein stain used to enhance bloody friction ridge detail.

CRYSTAL VIOLET
See Gentian violet.

CROWLE’S DOUBLE STAIN
Blue protein stain used to enhance bloody friction ridge detail.

CA or CAE
Cyanoacrylate Ester (Superglue). An adhesive used in a fuming method to develop friction ridge detail.

CYCLOHEXANE
Solvent used in the preparation of liquid Iodine reagent.

DAB
Diaminobenzidine. Reagent used to detect/enhance bloody friction ridge detail.

DICHLOROMETHANE
Solvent used in the preparation of liquid Iodine reagent. See Methylene chloride.

DFO
1,8-Diazafluoren-9-one. Compound that reacts with amino acids to produce friction ridge detail with fluorescent properties when exposed to excitation wavelengths of 352-591 nm.

ETHANOL
Solvent used in preparation of reagents, dye stains and rinses (ethyl alcohol).
FERROUS AMMONIUM SULFATE
Chemical used in Physical Developer and Multimetal Deposition solutions.

FERRIC NITRATE
Chemical used in Physical Developer and Multimetal Deposition solutions.

FINGERPRINT POWDERS
Powders used to visualize friction ridge detail; Can be magnetic, non-magnetic, fluorescent, bichromatic, or a variety of mono-chromatic types.

FLAME TECHNIQUE
Many common materials (e.g. camphor, magnesium, masking tape, nitro-cellulose, pine tar, titanium tetrachloride) burned to produce soot for detection of friction ridge detail.

FLS
Forensic Light Source. Common term for all light sources including lasers used in forensic examinations.

FLUORESCENCE
Emission of light, resulting from the absorption of radiation from another source.

FLUORESCEIN
Fluorescent reagent used to develop bloody friction ridge detail.

GENTIAN VIOLET
Violet stain used to develop or enhance friction ridge detail, which can be viewed by either fluorescence or nonfluorescence. Also known as Crystal Violet.

GOLD TETRACHLORIDE/COLLOIDAL GOLD
Initial suspension used in the Multimetal Deposition Process.

GUN BLUEING
A solution consisting of acetic acid, selenious acid and cupric salt, used to develop friction ridge detail on metal surfaces.

HFE 7100®
A commercial solvent by 3M used as carrier in reagents such as ninhydrin, DFO, and Indanedione.

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HUNGARIAN RED
A red protein stain used to visualize bloody friction ridge detail.

HYDROGEN PEROXIDE
Chemical used in friction ridge development reagents.

1,2-INDANEDIONE
Compound that reacts with the amino acids present in print residue, producing a fluorescent product when exposed to excitation wavelengths of 352-591 nm.

INFRARED
Light wavelengths longer than the visible spectrum, 700 to 1,000,000 nm.

INHERENT LUMINESCENCE
Luminescence resulting from selected wavelength illumination without chemical treatment.

IODINE
Element used as either a vapor or solution; binds with fats and oils to visualize friction ridge detail.

LASER
Light Amplification by Stimulated Emission of Radiation. Devices such as Argon-Ion, Nd:Yg, Copper Vapor, that produce coherent wavelengths of light; used in forensic examinations. See FLS.

LCV
Leucocrystal violet. Reagent used to detect/enhance bloody friction ridge detail by either fluorescent or nonfluorescent staining.

LEUCOMALACHITE GREEN
Reagent used to detect/enhance bloody friction ridge detail.

LIGROINE
See Petroleum ether.

LIQUI-DROX
Fluorescent yellow solution used to develop friction ridge detail on the adhesive and non-adhesive sides of dark colored tape.
LIQUI-NOX®
Detergent used in a solution to develop friction ridge detail on the adhesive and non-adhesive sides of tape; cleaning agent.

LIQUID NITROGEN
An element used in its liquid state (-195ºC) for the separation of adhesive surfaces, as well as to enhance the fluorescence of Zinc Chloride and Zinc Nitrate treated prints for visualization and photography.

LUMINESCENCE
Emission of light by energy from non-thermal sources (i.e., chemical, biochemical, electrical), including both fluorescence and phosphorescence.

MALEIC ACID
Weak acid used in an aqueous solution as a pre-wash step for the Physical Developer process.

MAXILON FLAVONE 10GFF
See Basic Yellow 40. See Panacryl Brilliant Flavone 10GFF.

MBD
7-(P-Methoxybenzlamino-4Notrobenz-2-Oxa-1,3-Diazole). Yellow dye which produces a fluorescent product when exposed to selected wavelengths of light; used to visualize cyanoacrylate fumed friction ridge detail.

MERBROMIN
Reagent used to detect/enhance bloody friction ridge detail; produces a fluorescent product when exposed to excitation at selected wavelengths.

MERCURIC NITRATE
Chemical used as a clearing agent for silver staining.

METAL ETCHING
Technique utilizing acidic solutions or vapors in the development of friction ridge detail on select metal surfaces.

METAL SALT
Secondary treatment of ninhydrin developed friction ridge detail for visualization (e.g. Zinc Chloride, Zinc Nitrate, or Cadmium Chloride); produces a fluorescent product when exposed to selected wavelengths of light.

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METHANOL (METHYL ALCOHOL)
Solvent used as a carrier in reagents, dyes, stains, and rinses; also used as a cleaning agent.

METHYLENE CHLORIDE
Solvent used in the preparation of liquid iodine. See *Dichloromethane*.

MOLYBDENUM DISULFIDE
Chemical used in the preparation of Small Particle Reagent (SPR).

MMD
Multimetal Deposition. Two step process using a colloidal gold and a modified Physical Developer solution to visualize friction ridge detail.

MRM-10
Combination of Basic Yellow 40, Rhodamine 6G and MBD dyes which produce fluorescence when exposed to selected wavelengths of light; used to visualize cyanoacrylate fumed friction ridge detail.

MSDS
Material Safety Data Sheet. Manufacturers' information concerning the handling and use of a chemical.

N-DODECYLAMINE ACETATE
Chemical used in the preparation of the detergent solution in Physical Developer.

NAPHTHALENE BLACK
See *Amido black*

NINHYDRIN
1,2,3-triketohydrindine hydrate. Reagent that reacts with amino acids to develop friction ridge detail.

NITRIC ACID
Acid used in a fuming technique to visualize friction ridge detail on select metal surfaces.

NON-POROUS
Non-absorbent.

PANACRYL BRILLIANT FLAVONE 10GFF
See *Basic Yellow 40.*
**PDMAC**
Para-dimethylaminocinnamaldehyde. Reagent that reacts with urea, amines and their salts to develop friction ridge detail with fluorescent properties when exposed to selected wavelengths of light.

**PETROLEUM ETHER**
Solvent used as a carrier in reagents; also as a rinse or cleaning agent.

**PHOTO-FLO™**
Surfactant developed by Kodak, used in powder suspension techniques for the development of friction ridge detail.

**PHYSICAL DEVELOPER**
Silver physical development process which reacts with some components of friction ridge secretions, as well as fatty or oily contaminants.

**POLYMERIZATION**
Chaining together many simple molecules to form a more complex molecule with different physical properties.

**POROUS**
Absorbent.

**2-PROPANOL**
Solvent used in preparation of reagents.

**RAM**
Combination of Rhodamine 6G, Ardrox, and MBD dyes, which fluoresce when exposed to selected wavelengths of light; used to visualize cyanoacrylate fumed friction ridge detail.

**REAGENT**
Substance used in a chemical reaction to detect, examine, measure, or produce other substances.

**REDOX**
Reduction-Oxidation. Chemical reaction in which one or more electrons are transferred from one atom or molecule to another. An important component of the Physical Developer and Multimetal Deposition processes.
RHODAMINE(S)
Family of dyes that produce fluorescence when exposed to selected wavelengths of light; used to visualize cyanoacrylate fumed friction ridge detail.

ROSANILINE CHLORIDE
See Basic Fuschin.

RUBBING TECHNIQUE
Powdering technique that can develop friction ridge detail when substrates are rubbed with gloves or cotton dipped in powder, usually after surfaces are cyanoacrylate fumed.

RUHEMANN'S PURPLE
Colored compound that is the product of the reaction between amino acids and Ninhydrin.

RUTHENIUM TETROXIDE (RTX)
Reagent used in the visualization of friction ridge detail, especially on fabrics.

RUVIS
Reflective Ultra-Violet Light. Imaging system that allows visualization of friction ridge detail in the ultraviolet spectrum.

SAFRANIN O
Red dye which produces fluorescence when exposed to selected wavelengths of light; used to visualize cyanoacrylate fumed friction ridge detail.

SEQUENTIAL PROCESSING
Use of a series of development techniques in a specific order to maximize development of friction ridge detail.

SHANNDON-XYLENE
Technique used to separate adhesive surfaces.

SILVER NITRATE
Chemical used in the Physical Developer, Multimetal Deposition and Silver Nitrate processes. Used alone, silver nitrate reacts with salt to develop friction ridge detail.

SPR
Small Particle Reagent. Suspension in which molybdenum disulphide adheres to fats and oils, allowing for visualization of friction ridge detail.

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SODIUM HYPOCHLORITE (HOUSEHOLD BLEACH)
Solution used to clear ninhydrin stains and to darken the silver deposits of Physical Developer.

STOCK SOLUTION
Concentrated solution diluted to prepare a working solution.

SUDAN BLACK
Black dye that stains fats, oils, sebaceous components, and contaminants of friction ridge residue; can enhance cyanoacrylate fumed friction ridge detail.

5-SULFOSALICYLIC ACID
Chemical used in fixative solutions for a variety of blood enhancement reagents.

SURFACANT
Surface-active substance; detergent.

STICKY SIDE POWDER™
Product used to develop friction ridge detail on adhesive surfaces and/or tapes.

SYNPERONIC-N
Chemical used in the preparation of the detergent solution in Physical Developer.

TEC
Thenoyl Europium Chelate. Treatment having fluorescent properties used with selected wavelengths of light to enhance cyanoacrylate fumed friction ridge detail.

THERMOPLASTIC POWDER
Toner powder used in copiers and printers.

TMB
Tetramethylbenzidine. Reagent used to detect/enhance bloody friction ridge detail.

ULTRAVIOLET
Wavelengths of light shorter than that of the visible spectrum, between 10 and 400 nm.

UN-DU®
Product used to separate adhesive tapes.
**VACUUM CYANOACRYLATE ESTER**
Fuming method, conducted under vacuum conditions, in which cyanoacrylate polymerizes on friction ridge residue; used to visualize friction ridge detail.

**VMD**
Vacuum Metal Deposition. Process of selective condensation of metals under vacuum conditions; used to visualize friction ridge detail.

**WORKING SOLUTION**
Solution at the proper dilution for processing.