Technical Procedure for Ardrox

1.0 Purpose – This procedure outlines how to make and apply this process to evidence items.

2.0 Scope – This procedure is used in the processing of non-porous evidence that may contain impressions that require developing/enhancing.

2.1 One of the most effective ways to recover latent prints from items of evidence is to use a fluorescent dye followed by a laser or alternate light source examination. Ardrox is one of the most effective laser dyes for use on various non-porous surfaces. This dye is normally for use on non-porous surfaces; however, it may, under certain conditions, be used on porous or semi-porous surfaces. Ardrox is extremely efficient; it is highly fluorescent and can be used with various alternate light sources.

3.0 Definitions

- **Alternate light source:** Any of the multiple forensic light sources readily available in the Latent Evidence Section.
- **CE:** Cyanoacrylate ester also known as super glue.

4.0 Equipment, Materials and Reagents (Alternatively Pre-mixed solutions may be purchased from a commercial Forensic Supplier)

4.1 Equipment and Materials

- Orange or other appropriate filter (goggles and/or camera lens filter)
- Alternate light source
- Fume hood
- Gloves
- Face shield and/or safety goggles
- Plastic applicator bottles or tray for submersion

4.2 Reagents

- Ardrox concentrate solution
- Methanol

5.0 Procedure

5.1 Mixing Procedure

5.1.1 Place six (6) mL of Ardrox concentrate solution in one hundred (100) mL of methanol. Stir until solution is completely incorporated into the methanol. Solution is ready for use.

5.2 Application Procedure

5.2.1 Forensic Scientists shall produce a self-made test print to be processed concurrently with items of evidence. (See Section Technical Procedure for Ensuring Quality Control.)

5.2.2 First apply cyanoacrylate ester to the item of evidence. Ardrox adheres to the chlorosis that occurs after processing with CE. Utilizing the fume hood and gloves, spray, immerse, or brush item of evidence with the Methanolic Ardrox solution. Allow to air dry for at least one minute.

5.2.3 Rinse item with running tap water to remove any excess Ardrox solution. Allow to air dry (this is especially important for semi-porous items).

5.2.4 When completely dry, view the item using available ALS (300 – 400 nm). Wear goggles to view any fluorescence on the item. Latent prints will fluoresce bright yellow.

5.2.5 Any latent prints shall be preserved using photography in accordance with Technical procedure for Recording of All Analytical Data. Camera shall be equipped with an orange filter for print visualization.

5.3 Standards and Controls – N/A

5.4 Calibration – N/A

5.5 Sampling – N/A

5.6 Calculations – N/A

5.7 Uncertainty of Measurement - N/A

6.0 Limitations – Ardrox is designed to be used in combination with the Cyanoacrylate Fuming Process.

6.1 Once prepared, it has a shelf life of six (6) months.

6.2 All prepared solution shall be stored in dark, shatter-proof bottles.

6.3 Background fluorescence shall be considered when using this chemical.

7.0 Safety – The chemical concentrate solution is flammable and must be handled with extreme care. It may cause some irritation when in contact with the skin or eyes and may be harmful if inhaled or ingested. The methanol used in the solution preparation is toxic and must be handled with care. Protective gloves, eye goggles and aprons shall be worn at all times.

8.0 References

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9.0 Records - N/A

10.0 Attachments - N/A

REVISION HISTORY		
CURRENT VERSION	EFFECTIVE DATE	SUMMARY OF CHANGES
1	2016/07/01	Original Version
2	2018/04/01	Edit Light sources and add appropriate filter. Change Revision History table, Change issue date to effective date, change Rev# to Ver#