Forensic Chemistry Section

Method for Preparing Luminol Spray

1. Scope

This document outlines the method for preparing luminol spray. Luminol spray will be prepared for investigators to use at scenes. The spray is typically not used in the laboratory.

2. Safety

2.1 Disposable laboratory coats and gloves will be worn when preparing reagents.

2.2 Reagents will be prepared in the total exhaust fume hood with the sash lowered.

3. Reagent Preparation (Grodsky-Based)

3.1 0.1 g of Luminol and 0.5 g Sodium Carbonate are dissolved in 100 ml reagent water in a large erlenmeyer flask.

3.2 The solution is poured into a spray bottle or media bottle.

3.3 The bottle is labeled with the name of the solution, date made, initials of preparer, and expiration date (one day following complete mixing).

3.4 Immediately prior to use, 0.7 g of Sodium Perborate is added to the solution in the spray bottle or media bottle.

3.5 After preparation, the reagent is tested with a known bloodstain in a completely darkened area. Application to a known bloodstain should result in luminescence at the stained area.

3.6 A copper penny may be used as a positive control.

4. Alternative Reagent Preparation (Weber-Based)

4.1 0.3 g of Luminol and 1.2 g Sodium Hydroxide are dissolved in 200 ml reagent water in a large erlenmeyer flask.

4.2 The solution is poured into a spray bottle or media bottle.

4.3 The bottle is labeled with the name of the solution, date made, initials of preparer, and expiration date (one day following complete mixing).

4.4 Immediately prior to use, 1.9 g of Urea Hydrogen Peroxide is added to the solution in the spray bottle or media bottle.

4.5 After preparation, the reagent is tested with a known bloodstain in a completely darkened area. Application to a known bloodstain should result in luminescence at the stained area.

4.6 A copper penny may be used as a positive control.