

## **COPAS PLUS Maintenance Protocol MP-01 Hypochloride Cleaning Protocol**

### **Scope**

Bleach is used on the COPAS *PLUS* for extended cleaning and certain troubleshooting procedures including breaking up proteins potentially causing a blockage in the flow cell or fluidics. The need for extended cleaning is determined by either the user or is recommended when the C.V.s do not meet specifications. This may be determined by performing a quality control test using COPAS CONTROL PARTICLES.

Union Biometrica recommends that Clorox® brand bleach be used due to its low particulate count. If a different brand of Bleach is used, filtering is required.

When using bleach, use 5% sodium hypochloride at a 50% dilution.

### **Materials**

Clorox Bleach  
Absorbent pad

### **Procedure**

Set up the COPAS *PLUS* as directed in the Operator's Manual. Place 80 ml (MINIMUM) of standard household bleach into the primary sample cup. Open the sample valve **ONLY** and process the bleach through the sample valve and flow cell.

NOTE: A warning will appear on the COPAS screen, acknowledge and select OK.

Process the bleach for 2 minutes. Turn off sample valve and let bleach sit in the sample valve and flow cell for an additional 2 minutes.

Turn on the sheath valve **ONLY**. Process sheath for a minimum of 3 minutes to rinse the flow cell.

Repeat the cleaning steps with Distilled Water in order to remove any residuals of the bleach

CAUTION: Household Bleach is Caustic. When using Household Bleach, protective eyewear and clothing should be worn. Also, an absorbent pad must be placed over the stage of the COPAS *PLUS* before processing.

NOTE: Bleach must have a concentration of 2.6 to 5.25% Sodium Hypochloride to be useful and not overly caustic to the flow cell assembly

NOTE: If this protocol is performed at the end of the day or week it is advised to replace the sheath fluid in the container and cleanout bottle with distilled/deionized water

### **Questions?**

**For further information, please contact  
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