**SOP**

**Operation and Maintenance of the Biosafety Cabinet**

**Document Number XX**

**Version History**: This is version 1.XX

**Purpose**

This SOP describes the procedure for regular operation and cleaning of the biosafety cabinet.

**Scope**

This SOP is intended specifically for Good Lab Practice (GLP) guidelines, and is not targeted towards Good Manufacturing Practice (GMP) guidelines. It is meant to support other SOPs referencing work done in a biosafety cabinet.

**Regulatory References** Not applicable

**Responsibility**

Responsibility of users: Follow standard operating procedure when using the biosafety cabinet.

Responsibility of lab manager: Train new users on proper use of the cabinet; verify adherence to protocol. Arrange for yearly recertification of the hood.

**Definitions/Abbreviations** NA

**Related Documents** NA

**Required Equipment and Materials / Reagents**

* 20% bleach in spray bottle (20% final concentration of household bleach [e.g. Clorox or equivalent] in deionized water). Dilute bleach solution should be no more than one week old.
* 70% ethanol (70% final concentration of 190 Proof Koptec ethanol or equivalent, in deionized water); dilute ethanol solution should be no more than 4 months old
* BL-2 waste bins (any brand and size, as required by user’s laboratory/ institution)
* autoclave bags (any brand) that fit user’s BL-2 waste bins
* paper towels (any brand)

This SOP covers the use and cleaning of a Labconco Purifier Logic+ biosafety cabinet, Model No. 30241900.

**Precautions**

This type of hood keeps both the user and the samples clean. Since the user will be protected from exposure, the biosafety cabinet may be used to work with potentially infectious samples.

Users must wear a lab coat and gloves. If working with patient samples that are potentially infectious, users must also wear face protection.

**Procedure**

Optional pre-clean before using the cabinet:

\*perform if working with patient samples or if performing extractions

1. Spray surface with 20% bleach, allow 20 minutes exposure time.
2. Wipe with paper towel soaked in 20% bleach.
3. Wipe with a paper towel soaked in 70% ethanol, allow to dry.

Before using the cabinet:

1. Line waste bin with an autoclave bag.
2. Close cabinet sash, turn on UV light.
3. Once UV light turns itself off, hood is ready to use. Transfer in clean, sterile items, and wipe lab supplies with ethanol-soaked paper towels before moving into the cabinet.

After using the cabinet:

1. Tie off and discard any waste into a BL-2 waste bin.
2. Spray all tools and surfaces with 20% bleach, allow 20 minutes exposure time.
3. Wipe all surfaces with a paper towel soaked in 20% bleach.
4. Remove cleaned items - only pipettes and waste bin remain in cabinet.
5. Wipe surfaces with 70% ethanol to prevent bleach buildup and corrosion.

Maintenance activities:

1. MIT requires hoods to be re-certified by an outside company once per year. We use B&V testing, who will verify adequate face velocity through the entire work surface.
2. To maintain sterile work surfaces, perform monthly cleaning of the UV light (with bleach, then ethanol) and the surface below the bench top (accessed by lifting metal knobs).

**Worksheets** NA

**Appendix** NA