## **ABSTRACT**

Biosafety cabinet is the main device used with biological materials. The most common cabinets are the biological equivalent of using hazardous chemicals in a fume hood such as a chemical fume hood, biosafety protects the user from hazardous materials using directed airflow. The working principle of the Biosafety Cabinet is to create an inlet of air to protect operators who are handling risky biological samples by removing air through the HEPA (High Efficiency Particular Air) filter. The purpose of using Biosafety cabinet, especially in microbiology laboratories, is to protect operators from microorganisms. Most biosafety cabinets also offer products that protect samples from room contaminants. In general, there are two types. There are several different types of biosafety cabinets. The different types of biosafety cabinets are based on the degree of biological content required. The Center for Disease Control and Prevention classifies the Biosafety Cabinet into three classes, namely class I, class II, and class III. These classes and the types of biosafety cabinets in them are distinguished in two ways through the level of personal and environmental protection provided and the level of product protection provided.

Key words: biosafety cabinet, laboratorium, HEPA