

Use of the hoods found in the Davis lab

Using the Hamilton Safeaire fume hood:

WARNING: The fume hood will protect the user from toxic fumes. However, large spills inside of the hood will can overwhelm the hood's capacity and endanger others in lab.

The fume hood draws gas upward and vents it outside of the building. This mechanism protects the user and others in lab from breathing toxic fumes. The front sash must be kept lowered far enough to keep the inner chamber ventilated while still allowing enough range of motion.

General guidelines:

1. The front sash must be kept lowered far enough to keep the inner chamber ventilated while still allowing enough range of motion. Adjust the sash to a comfortable level. Monitor the airflow inside of the hood using the alarm unit on the top right of the outer face.
2. While standing in front of the hood, the user should avoid quick movements. All movements should be steady and deliberate to prevent fumes from leaving the hood. Some people are very sensitive to certain volatile organic solvents such as β -mercaptoethanol. Be aware of these sensitivities when handling those substances.
3. Gloves and safety goggles should be worn to protect from fumes.
4. Keep the workspace organized; stack pipette tip boxes neatly on the sides of the workspace. Place all reagents back into the cabinet below the fume hood or into their respective trays inside of the hood.
5. Do not overfill the pipette waste container inside of the hood. Allow tips to ventilate overnight then empty the pipette tips/tubes into a recycled plastic bag. Seal the bag and dispose of it in the biohazard burn container.
6. Clean up any spills inside of the hood. If a large amount of a highly volatile reagent (e.g. chloroform) then seal the sash and alert others in the lab. Large spills may require evacuation of the lab.

Using the Edge GARD laminar flow hood:

WARNING: Do not use this hood if you are working with any volatile solvents or infectious agents. The laminar flow hood does not function as a fume hood or biological safety cabinet

The laminar flow hood takes in air from the room and filters it. Filtered air is then blown from the back of the hood to the front. This mechanism provides protection to the samples from contaminants in the air.

However, the hood does not provide protection to the user from volatile solvents or hazardous aerosols used within the hood.

General guidelines:

7. While sitting in front of the hood, the user should avoid quick movements. All movements should be steady and deliberate to avoid accidents and contamination of samples.
8. Gloves and a lab coat should be worn to protect both the samples and the user. Because the airflow is directed towards the user, goggles should also be worn.
9. Use 70% (v/v) EtOH (in a spray bottle) and Kim wipes to clean the steel work area before use. Don't light the alcohol burner until the work area is dry.
10. Keep the workspace organized; stack pipette tip boxes neatly on the left side of the workspace. Try not to line objects along the back wall of the hood – the air must flow freely from back to front.
11. If using a glass hockey stick, then pour ethanol into a beaker before lighting the ethanol flame. Check the ethanol level of the burner before lighting; the burner will be too hot to fill later. Never pour flammable substances in the hood with an open flame present. Keep the area around the burner clear.
12. Alcohol flames can be almost invisible. Never recoat a hockey stick in ethanol after flaming it, as that could ignite the ethanol in the beaker.

Fold the plastic cover over the top of the hood, and secure it. Turn on the switch for "Blower" to enable the air flow, and allow the air to flow for at least 15 min before pouring plates