



MISSISSIPPI STATE UNIVERSITY™  
MS AGRICULTURAL AND FORESTRY  
EXPERIMENT STATION

# MAFES DAWG TRACKS

The fume hood is an important piece of safety equipment in the laboratory. It is considered the primary means of protection against inhalation of hazardous vapors and gases. But there are limitations to its effectiveness. Many of these limitations are created unknowingly by the user. Understanding this information will allow you to maintain better performance of your chemical fume hood.

- ✓ Confirm that the hood is operational. Check the airflow gauge if so equipped. In the absence of a gauge, tape a piece of tissue paper to the corner of the sash. Airflow can be visually assessed by noting that the paper is pulled gently into the hood. Never work with a malfunctioning hood.
- ✓ Maintain operations at least 6" inside the hood face. Vinyl tape can be attached to the work surface to serve as a visual reminder.
- ✓ Know the toxic properties of the chemicals you are working with. Be able to identify signs and symptoms of overexposure. The hood is not a substitute for personal protective equipment. Wear gloves, safety glasses, etc. as appropriate.
- ✓ Use extreme caution with ignition sources inside a chemical hood. Ignition sources such as electrical connections and open flame can be used inside a chemical hood as long as there are no operations involving flammable or explosive vapors. If possible, ignition sources should remain outside the hood at all times.
- ✓ Keep hood storage to an absolute minimum - do not use your fume hood as a storage cabinet. When chemicals are not in use, be sure to store them in cabinets appropriate for the chemical
- ✓ Each item placed in the hood interferes with the directional airflow, causing turbulence and eddy currents that allow contaminants to be drawn out of the hood. Keep only items needed for the ongoing operation inside the hood. Keep the back-bottom slot clear at all times as it serves as an exhaust port for chemicals generated near the work surface. Raise large objects at least 1 1/2 inches off the hood surface to minimize air flow disruption.
- ✓ Keep the sash at the level indicated by arrows on the side when working in the hood. Close the sash when not in use.
- ✓ Minimize foot traffic around the chemical hood. A person walking past a chemical hood can create competing currents at the hood face, causing vapors to flow out. Other sources of competing air currents such as open windows, open doors, and fans must also be taken into account while using a chemical hood.
- ✓ Do not use a hood for a function in which it is not intended. Certain chemicals or reactions require specially constructed hoods. This is also true of work involving radioactive or biohazard materials.
- ✓ Chemical fume hoods must be inspected at least annually.

For more info contact:

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Risk Mgmt./Loss Control

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**Sources:**

<https://www.labconco.com>