Chemical Fume Hood Use

Fume hoods are the primary method of preventing exposures to chemicals in a laboratory. Standard fume hoods are designed to operate with air moving at 100 feet per minute with the sash opened to 18 inches. A laboratory fume hood should be checked every day that it is used and should be kept clean.

Daily Checks

A fume hood should be checked for air flow every day that it is in use. The daily check is just to determine if the hood's ventilation is functioning. This can be achieved with a few different methods:

- Hold a chem wipe or paper towel at the face of the hood,
- Visualizing air flow with a smoke tube, or
- Using a swing vane anemometer in the hood.

Any of these methods will help you determine if air is flowing into the hood. Perform your daily checks with the sash at the identified working height.

Lab Fume Hood Setup

Equipment inside your lab fume hood should be set up to allow for air flow across the face. Some general rules include:

- Place large items on stands or blocks to allow air to flow around them on all sides,
- Keep equipment at least six inches back from the sash
- No long-term chemical storage in the hood.

The only chemicals in the hood should be the ones you're currently using!

If there is a problem with the hood...

If the hood fails a daily check (you don't observe any air flow), close the sash and notify Safety. Do not use the hood until its function has been verified.

If the hood alarm starts going off, stop all work immediately, close the sash, and notify Safety. Hood alarms are set to go off when the air moving across the face falls outside the range of 80-120 feet per minute. Face air velocity less than 80 feet per minute may not adequately capture chemical fumes inside the hood, and air velocity more than 120 feet per minute may cause turbulence that could push air and chemical fumes back out of the hood.

If there is a spill inside the hood, stop work. If it is a small spill, you may be able to clean it yourself. If it is a large spill, or the spill may escape the hood, follow the spill response procedures, including evacuating any other personnel from the laboratory or work area where the hood is located.