

# Safety Bugle



## Today's Topic: Fume Hood Safety

### Introduction

The fume hood is often the primary control device for protecting laboratory workers when working with flammable and/or toxic chemicals. OSHA's Laboratory standard (29 CFR 1910.1450) requires that fume hoods be maintained and function properly when used.

A well designed hood in a ventilated room will protect a trained laboratory worker from most airborne exposures to hazardous chemicals.

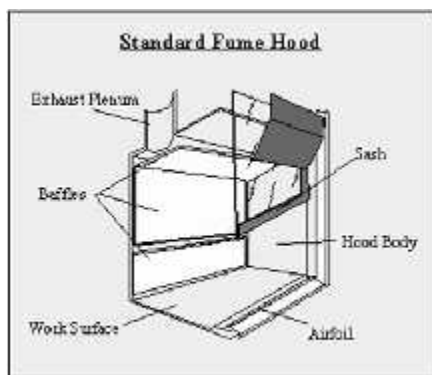


Figure 1 Basic features of a standard fume hood.

The following work practices are always required when using chemical fume hoods, and more stringent work practices may be necessary in some circumstances.

### Before using a fume hood:

- Make sure that you understand how the hood works.
- You should be trained to use it properly
- Ensure that the hood is on.
- Know the hazards of the chemical(s) you are working with; referring to the Safety Data Sheet if you are unfamiliar.
- Make sure that the sash is open to the proper operating level, usually indicated by the arrows on the frame of the fume hood.
- Make sure that the air gauge indicates that the air flow is within the required range.

### When using a fume hood:

- Never allow your head to enter the plane of the hood opening. For example, vertical rising

sashes, keep the sash below your face; horizontal sliding sashes, keep the sash positioned in front of you and work around the side of the sash.

- Use appropriate eye protection at all times.
- Keep the hood slots and baffles free of obstruction by apparatus or containers.
- Elevate large equipment at least 2 inches off the base of the hood interior.
- Conduct all work and keep all apparatus and chemicals at least 6 inches back from the face of the hood. A stripe on the bench surface is a good reminder.
- Do not permanently store any chemicals or apparatus in the hood.
- Minimize foot traffic near the face of the hood.
- Do not make fast movements when taking things in and out of the hood.
- Do not place electrical receptacles or other spark sources inside the hood when flammable liquids or gases are present. No permanent electrical receptacles are permitted in the hood.



### Hood safety:

- Do not use hood as a waste disposal mechanism. Solvent bottles in the fume hood must be capped when not in use.
- Promptly report any hood that is not functioning properly to your supervisor. The sash should be closed and the hood "tagged" and taken out of service until repairs can be completed.
- When using extremely hazardous chemicals, understand your laboratory's action plan in case an emergency, such as a power failure occurs.