Laboratory Safety
Chemical Fume Hoods

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.

Before using a fume hood:

- Make sure that you understand how the hood works.
- You should be trained to use it properly.
- Know the hazards of the chemical you are working with; refer to the chemical’s Material Safety Data Sheet if you are unsure.
- Ensure that the hood is on.
- Make sure that the sash is open to the proper operating level, which is usually indicated by arrows on the frame.
- 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, for vertical rising sashes, keep the sash below your face; for horizontal sliding sashes, keep the sash positioned in front of you and work around the side of the sash.
- Use appropriate eye protection.
- Be sure that nothing blocks the airflow through the baffles or through the baffle exhaust slots.
- Elevate large equipment (e.g., a centrifuge) at least two inches off the base of the hood interior.
- Keep all materials inside the hood at least six inches from the sash opening. When not working in the hood, close the sash.

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- Do not permanently store any chemicals inside the hood.
- 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.