

Chemical fume hood user guide

Follow these guidelines to use fume hood safely and avoid compromising their efficiency

- Always wear appropriate personal protective equipment, or PPE, when working with chemicals.
- Avoid creating air currents or cross-drafts across the hood's open sash.
- **Do not** extend your head inside of the hood while performing experiments.
- **Do not** use hood to evaporate hazardous chemicals or as a means of chemical disposal.
- Handle perchloric acid only in a designated Perchloric Acid Fume Hood.
- Keep hood exhaust baffles unobstructed and appropriately adjusted.
- Minimize amount of materials and equipment in hood and avoid using as storage.
- Perform work with the sash height below the appropriately marked position.
- Place chemical sources and equipment at least six inches inside the hood.
- Take extra precautions when handling electrical equipment and flammables in a fume hood.

Additional information for the chemical fume hood user guide

Always wear appropriate personal protective equipment when working with chemicals

- At a minimum, all users must wear appropriate eye protection, gloves and a lab coat when working with hazardous chemicals in the hood.
- Consult the material's Safety Data Sheet, or SDS for appropriate PPE.

Avoid creating air currents or cross-drafts across the hood face

- Foot traffic, local ventilation systems, windows and doors may cause air currents to form across hood face, which may reduce the hood performance and pull contaminated air out of the hood toward the user.
- Keep lab doors and windows closed unless lab ventilation design requires them open.
- Restrict foot traffic and rapid arm and body movement around the hood face.

Do not use hood to evaporate hazardous chemicals or as a means of chemical disposal

- All chemicals inside hood must remain capped when not in use.

Handle perchloric acid only in a designated Perchloric Acid Fume Hood

- Water wash-down fume hoods made of noncombustible material must be used during use of perchloric acid.
 - If there is a doubt to whether the wash-down system is functioning properly, stop all work in the hood and call Facilities Management 480-965-3633 and EHS 480-965-1823 for inspection and repair.

Keep hood exhaust baffles unobstructed and appropriately adjusted

- Keep air exhaust baffles located at hood's back wall unobstructed and adjust them accordingly.

Minimize amount of materials and equipment in hood and avoid using as storage

- Equipment placed in the hood may restrict adequate exhaust air-flow. If absolutely necessary to have equipment in hood, position equipment toward back of hood and elevate equipment with blocks to maintain airflow gap below and around equipment to maintain air circulation.
- Only chemicals necessary to perform the experiment may be left in the hood. Store all other chemicals in approved safety storage cabinets.

Perform work with the sash height below the appropriately marked position

- The appropriate 18-inch closure point should be clearly labeled on the outer frame of the sash.
- The sash should remain closed and hood exhaust operating when hood unattended. For horizontal sliding panes, position sash all the way down with as small an opening as practical.

Place chemical sources and equipment at least six inches inside the hood

- Placing a line of tape across the work surface at this six-inch mark inside the fume hood from the hood sash will help as a reminder.

Take extra precautions when handling electrical equipment and flammables in a fume hood

- **Do not** use spark source when flammable liquids or gases are present inside the hood.
- Permanent electrical receptacles are not permitted in the hood.

Reporting problems with chemical fume hoods

- For hoods not operating properly or in alarm mode contact ASU Facilities Management at 480-965-3633.
- If hood is without a testing sticker indicating it has been tested within one year notify Environmental Health and Safety at 480-965-1823.

For questions about chemical fume hood [email](#) ASU EHS or call 480-965-1823.