FUME HOOD USE

# FUME HOOD PURPOSE

Fume hoods contain airborne hazards by continuously pulling room air into the hood and exhausting it out through the roof of the building, allowing workers to safely handle materials that present inhalation hazards. When the sash is closed, fume hoods also provide a physical barrier between the user or other room occupants and a possible chemical spill, release or explosion.

[A video covering the safe use of a fume hood is available from Dow](https://www.youtube.com/embed/YjC5YIQONjQ).

# FUME HOOD WORK PREPARATION

* Before using a fume hood, identify the locations of the nearest exit, emergency shower, eyewash and fire extinguisher. Ensure the pathways to these areas are unobstructed.
* Verify that the exhaust system is operating properly. Check that the certification sticker indicates testing within the last year. Only use the hood when the fume hood flow gauge indicates the hood is operational (at least 100 ft/min).
* Clear the fume hood work surface of clutter and unnecessary equipment. Clutter can obstruct the airflow of the fume hood.
	+ Minimize storage of chemicals, apparatus or containers in the hood. Materials stored in a hood disturb the airflow pattern (especially when blocking baffles) and reduce available working space.
	+ Elevate bulky items (e.g., hot plates, ovens) to allow airflow under and around them. Jack stands work well for this.
* Connect electrical devices outside the hood to avoid sparks that may ignite a flammable or explosive chemical.
* Wear personal protective equipment (PPE) appropriate for the hazards in use, including body, hand and eye protection as required. The fume hood is not a substitute for PPE.

# WORK PRACTICES

* Work in the center of the work area, at least 6 inches from the face and the rear of the hood.
* Adjust the sash at or below the indicator arrow for proper airflow.
* Keep the sash closed whenever there is no “hands-on” part of the experiment in progress or whenever the hood is unattended.
* Place only hands and arms inside the fume hood. Other body parts, including the head, should never enter the fume hood.
* Move deliberately when working in or around the hood face. Rapid movements when the sash is open may create sufficient turbulence to disrupt the face velocity and cause contaminants to enter the room.
* Clean all chemical residues in the hood after each use. Consult the SDS for chemical-specific decontamination procedures.
* Use a fume hood only for intended functions.
	+ Dispose of waste in appropriate hazardous waste containers. Do not evaporate waste in the hood. Consult the [Regulated Waste Management policy](https://seattleu.policystat.com/policy/8670318/latest) for more details on waste disposal.
	+ Do not heat perchloric acid (HClO**4**) in a standard fume hood. Perchloric acid vapors can form explosive materials in reaction with the fume hood ducts, so a special type of fume hood is required for heating perchloric acid.

# FLOW ALARMS OR MONITORS

Stop work if the fume hood alarm sounds or the monitor indicates low flow (below 100 ft/min). Turn off equipment and lower the sash. Fume hood alarms or monitors should never be turned off.

Place a [Facilities Services work order](https://www.seattleu.edu/facilities/request-services/) for the fume hood to be evaluated for any needed repair.

# FUME HOOD ISSUES

If the fume hood you are working with is not functioning properly or if you can smell the chemicals you are working with in the fume hood, stop all work, lower the sash and place a [Facilities Services work order](https://www.seattleu.edu/facilities/request-services/). This will initiate a process to evaluate and repair your fume hood.

Contact the Academic Safety Officer with any questions regarding your fume hood.