

# FACT SHEET: Chemical Fume Hoods

## Safe Use and Operation



Chemical Fume Hoods are ventilation devices common in laboratories and are often the primary exposure control for work with hazardous materials. Chemical fume hoods, when functioning and utilized properly, protect by removing airborne contaminants and exhausting air away from users. **Only ducted and stationary chemical fume hoods are approved for installation/use.**

### NEED TO KNOW:

- Always review SDS before beginning work.
- Inspect Certification Sticker to verify fume hood has been tested within last 12 months .
- Don't use fume hood if:
  - Overdue for certification by OEHS
  - Has a certification failure notice
  - Not functioning properly
- Verify airflow monitor displays reading of 80-120 fpm or has a visual indication of adequate airflow .
- Stop work and close sash if airflow monitor alarms .
- Notify OEHS if fume hood

### WHEN SHOULD I USE A CHEMICAL FUME HOOD?

Review Safety Data Sheets (SDS) before handling chemicals. Review Sections 2 (Hazard Information) and 8 (Exposure Controls) of the SDS. Utilize a fume hood when:

- Material is volatile or respirable and listed in Section 2 as highly toxic or highly flammable. Severe hazards are listed as Category 1 or 2.
- Material is a volatile, corrosive liquid or during preparation of corrosive solutions. *(NOTE: Perchloric acid must not be used in standard fume hoods due to the risk of forming explosive perchlorate salts on contact with organic materials, which are commonly present in standard fume hoods.)*
- When in doubt, contact OEHS before beginning work.

### HOW DO I SAFELY USE CHEMICAL FUME HOODS?

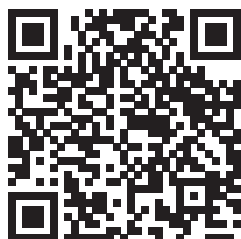
- Raise sash to operational position indicated by arrow on Certification Sticker. Work with sash at operational position. Working sash height must be 12-18 inches. Bottom of the sash must be below user's face.
- Work with hands about 6 inches inside of the fume hood; Never place your head inside of fume hood.
- Minimize storage. Raise equipment and containers 2-3 inches above work surface using perforated or slotted shelves if possible. Store items away from air slot baffles. Items not in use must be stored in appropriate cabinets.
- Limit movement around fume hood when in use.
- Wear required PPE and wipe down surfaces after completing work.

### WHAT ARE GENERAL USE CHEMICAL FUME HOODS NOT USED FOR?

- Substitute for Personal Protective Equipment (PPE)
- Spill containment
- Dedicated chemical/item storage
- Blast shield for high energy reactions/potentially explosive work
- Activities that require biocontainment
- Work with perchloric acid



### MORE INFO:



### ! OEHS INSPECTIONS / CERTIFICATIONS:

OEHS conducts annual inspections and certifications of fume hoods to ensure proper functioning and use, and to identify repairs or corrective actions needed.

- Certification Sticker placed alongside sash if fume hood passes, lists date of certification, and test results
- Certification Failure Notice placed on sash if inspection/certification not passed. Lab must submit a service wave for repair of malfunctioning fume hood.
- Follow-up inspection/testing after repairs/corrective actions completed.
- Fume hoods are not safe to use unless certified by OEHS.

### ADDITIONAL RESOURCES:

- OSHA QuickFacts: [Chemical Fume Hood Fact Sheet](#)
- NIH: [Prudent Practices in the Laboratory; Chapter 9, Section 9.C.2](#)