

Fume Hood Use

Summary: All chemicals should be handled in a laboratory hood whenever possible. Chemicals that have high acute toxicity, are carcinogens, or are reproductive toxins must be handled in a laboratory fume hood (except where there is only a very low risk of exposure (e.g., use of minimal quantities in a closed system)). As a general rule, use a hood or other local ventilation device when working with any appreciably volatile substance or material easily dispersible in air (i.e., dust) having a permissible exposure limit of less than 50 ppm (or 0.25 mg/m³ for particulate matter).

What to do?	How to do this?
Follow proper safety fume practices	<ol style="list-style-type: none">1. Ensure the fume hood is labeled with a certification date of less than one-year prior. Verify sufficient inward airflow before using a hood by checking the hood's airflow indicator. Report any problems to PI/Lab Supervisor and Facilities Operations at (650) 723-2281; in SOM, call the Workflow Control Desk at (650) 721-2146.2. Maintain hood sash at or below the maximum height indicated by an arrow on the side of the fume hood. Close the hood sash when not working in the hood.3. Avoid rapid movements at the face of the hood, as they tend to create competing air currents and reduce the ability of the hood to contain air contaminants.4. Equipment used in hoods should be placed securely on blocks to allow air to flow under and around the equipment.5. Keep chemical sources and equipment at least six inches away from the face or rear of the hood.6. Minimize equipment and chemical storage placed in the hood to avoid dead air spaces or eddies and to prevent blocking back baffles.
For operations involving heating or volatilizing perchloric acid	Use perchloric acid fume hoods. These hoods contain water spray systems to wash down the interior of the hood, ducting, fan, and stack to prevent accumulation of explosive perchlorate crystalline material.