

## Biological Safety

The Biological Safety Program provides training for the use and/or shipment of infectious materials to laboratory workers and support staff to eliminate exposure to infectious microorganisms. Laboratory surveys, task-specific consultations and other outreach activities help ensure materials are used and disposed safely. The Biological Safety Program is also responsible for registration of recombinant DNA activities in accordance with NIH requirements.

[www.ehs.columbia.edu/bs.html](http://www.ehs.columbia.edu/bs.html)

## Lab Safety

- Laboratory Surveys
- Chemical Hygiene Review & Recommendations
- Laboratory Design & Process
- Emergency Response
- Equipment Clearance
- Substitution (safer materials in place of higher hazard products)

<http://www.ehs.columbia.edu/LaboratorySafety.html>

## Occupational Safety

### Health & Safety Services

Job Safety Analysis, Personal Protective Equipment, Ergonomic Assessments and regulatory compliance.

### Industrial Hygiene Services

Evaluation of employee exposures to: hazardous materials & conditions, laser safety, non-ionizing radiation, noise surveys.

### Indoor Air Quality Services

Investigation of indoor air quality issues and related ventilation issues.

## Asbestos Services

Determination of the presence or absence of asbestos-containing material. Surveys, abatement plans and oversight, operation and maintenance plans in compliance with EPA & NYC DEP

## Safety Training

- Formaldehyde Training
- Hydrofluoric Acid Training
- Laser Training
- Hazard Communication & PPE
- Respirator Fit Testing & Training
- Biological Safety
- Shipping

<http://www.ehs.columbia.edu/OccupationalSafety.html>

## Environmental Safety

Strives to reduce the environmental impact of the University's activities through partnerships with the Columbia University community. Work effectively toward creating a safer and greener environment. Provide technical guidance on regulatory compliance, pollution prevention, personnel training and the implementation of "Best Management Practices" to promote Environmental Stewardship, including:

- Hazardous Waste Management
- Universal Waste Management
- Spill Prevention Control and Countermeasures (SPCC)
- Recycle / Reuse of Electronics
- Solvent Recovery
- Silver Recovery in dark rooms
- Chemical Spill Response/Air Emissions Tracking

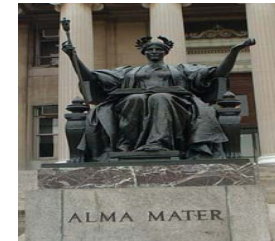
<http://www.ehs.columbia.edu/EnvChemSafety.html>

## Lab Safety & Chemical Hygiene Facts Brochure

### Environmental Health & Safety

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P: 212.305.6780

Morningside  
S.W. Mudd Building, Suite 350  
500 W. 120th Street, Mailbox 2215  
New York, NY 10027  
P: 212.854.8749



## VISION STATEMENT

We provide expert guidance and timely service to the University Community through our commitment to health and safety. Employing best practices and collaboration, and by building long term relationships, we promote a productive and safety conscious work environment.

<http://www.ehs.columbia.edu>



## General Safety

- Don't eat, drink, smoke or apply cosmetics in the laboratory.
- Don't store food or beverages in laboratory refrigerators or freezers.
- Follow "Good Housekeeping" practices at all times.

## Chemical Safety, Storage and Labeling

- Maintain a MSDS (paper copy) for each hazardous chemical.
- Know the hazards of the chemicals you are working with before beginning an experiment.
- Label all chemical containers.
- Label and date peroxide forming chemicals (e.g., isopropanol, diethyl ether, tetrahydrofuran) upon opening.
- Keep chemical bottles closed when not in use.
- Don't store chemical bottles on the floor or under the sinks.
- Segregate incompatible chemicals by storing them in separate cabinets or by using secondary containment tubs/trays.
- Don't store flammable liquids in a standard refrigerator or freezer. Use flammable or explosion – proof refrigerator and freezer if necessary.



## PPE and Emergency Equipment

- Wear lab coats in the lab.
- No open toe shoes in the lab.
- Do not wear gloves outside of the lab. Use a clean (something you can safely hold in your bare hands) secondary container to transport materials outside of the laboratory.
- Know where the safety devices are located and ensure they remain unobstructed. Safety devices include fire extinguishers, fire alarm pull stations, safety showers, eyewash stations, and spill materials.
- Test eyewash stations weekly. Report issues to Facilities, 305-3753 for repair.



### In Case of Fire:

**Rescue**  
**Alarm**  
**Confine**  
**Extinguish/Evacuate**

### To use Fire Extinguisher:

**Pull Pin**  
**Aim Hose**  
**Squeeze Handle**  
**Sweep From Side to Side**

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## Compressed Gas Cylinders

- Gas cylinders, both empty and full, must be chained or otherwise secured at all times.
- Safety caps must be on cylinders when not attached to a regulator.
- Gas cylinders need to be hydrostatically tested every ten years. Return old cylinders to the vendor/distributor for re-testing.



## Chemical Fume Hood Use and Safety

- EH&S inspects and certifies chemical hoods on an annual basis.
- Minimize hood storage and blockage of baffles to increase performance and worker protection.
- Position hood sash no farther than 12" above work surface to ensure proper air flow.
- Work at least 6 inches inside the hood (behind the sash) to increase worker protection.
- Contact EH&S if for any reason you believe that your hood is not operating properly.