RowanUniversity
ENVIRONMENTAL HEALTH & SAFETY

Laboratory Specific Chemical Hygiene Plan

Instructions:
Complete your Laboratory Specific Chemical Hygiene Plan in its entirety. Upload the completed document into SciShield.

Principal Investigator:

Laboratory Safety Officer:
(Principal Investigator is the Laboratory Safety Officer if one is not assigned)

Building: Room(s):

Completed By: Date:

Checklist for documents to be appended to the plan, if applicable:
Check all items below that are appended to this plan. Unless otherwise indicated, copies of appended documents should be sent to Lab Safety.

- ☐ List of particularly hazardous and high-risk chemicals (required unless listed in this Plan, or unless you indicate that there are no particularly hazardous or high-risk chemicals in the laboratory).
- ☐ Standard Operating Procedures or customized Standard Operating Procedures, if any.
- ☐ Summary of Chemical High Risk Procedures, hazard assessments or laboratory specific SOP's for each high risk procedure(s).
- ☐ Laboratory Emergency Response materials (spill kit).
- ☐ Laboratory specific chemical hygiene and safety training documentation.

Safety Data Sheets (SDSs)
Every laboratory employee should be instructed on how to access and understand Safety Data Sheets.
Safety Data Sheets for our chemicals can be found:

- ☐ In SciShield

Chemical Inventory for chemicals in this laboratory

- ☐ The chemical inventory can be found in SciShield.

Controlling Exposures & Hazards – Laboratory Specific Strategies

General strategies for controlling chemical exposures are described in the Chemical Hygiene Plan and Standard Operating Procedures.

List below any general lab guidelines that are more stringent than the above-referenced section.

Indicate below the strategies for safe use of engineering controls in the laboratory:

☐ Our laboratory has a chemical fume hood.

- Chemical fume hoods are certified on an annual basis. If your chemical fume hood has not been certified in the past year, contact Lab Safety at labsafety@rowan.edu
- Position the sash correctly for work:
  - ☐ Hood sash moves vertically – keep sash in lowest practical position while working. The sash must come down to shoulder height or lower.
  - ☐ Hood has combination sash –
    - For maximum flexibility, route tubes and cords under airfoil or through access panel at side of chemical fume hood. If this is not possible, route these connections under the sash. Avoid running tubes or cords between horizontal side panels.
    - Keep horizontal panels closed and move the sash vertically during work. Keep the sash in the lowest practical position while working. The sash must come down to shoulder height or lower.
    - Close the sash vertically. Place one sash panel between the body and the work in the hood. Work with arms reaching around this sash panel.

☐ Our lab uses a ducted biological safety cabinet for handling of powder chemicals or water-based solutions/suspensions. Look for the annual certification date on the biological safety cabinet. Ducted biological safety cabinets are certified annually by an approved outside vendor.

☐ Our laboratory has a snorkel exhaust (localized exhaust) to remove hazardous vapors from the benchtop. The snorkel must be placed as close as possible to the point of containment generation (generally 4" – 6").

☐ Our laboratory has other localized exhaust. Safe use instructions are included below ☐ or are attached to this document ☐.

Flammable Chemicals

Where are your flammable chemicals stored:

- ☐ In a storage cabinet beneath the chemical fume hood
- ☐ In a flammable storage cabinet
- ☐ Other, list:

Are there refrigerators that can safely store flammables available in your laboratory:

NO ☐ YES ☐ If yes, provide location:

Particularly Hazardous Substances

Where are the designated areas in your laboratory to work with the particularly hazardous substances (list all particularly hazardous substances):

Particularly Hazardous Substance (Acutely Toxic Material)	**Designated Area Location (e.g., Chemical Fume Hood)**
Particularly Hazardous Substance (Carcinogen)	**Designated Area Location (e.g., Chemical Fume Hood)**

Particularly Hazardous Substance (Reproductive Hazard)	Designated Area Location (e.g., Chemical Fume Hood)

Emergency Shower, Emergency Eyewash and Fire Extinguishers
Location of closest emergency shower and emergency eyewash for this laboratory?

- Emergency Shower:
- Emergency Eyewash:

What type of fire extinguishers are available? Where are they located?

Type	Number	Location
Class A		
Class B		
Class C		
Class AB		
Class ABC		
Class BC		

Controlling Exposure & Hazards – Standard Operating Procedures and Safety Guides

Mark below the Standard Operating Procedures that are relevant for this laboratory.

SOP	Chemical Name or Hazard Class	Notes
☐	Acutely Toxic Chemicals	
☐	Acutely Toxic Gases	
☐	Carcinogens	
☐	Reproductive Hazards	
☐	Compressed Gases	
☐	Strong Oxidizers	
☐	Pyrophoric Chemicals	
☐	Reactive Liquids	
☐	Reactive Solids	
☐	Water Reactive Chemicals	
☐	Peroxide Forming Chemicals	
☐	Corrosive Chemicals	
☐	Chemical Irritants	
☐	Other (specify)	

☐ This laboratory does not have or need SOPs.

The following Chemical Hygiene High Risk Procedures Apply:

	Chemical Hygiene High Risk Procedure	Approved by the PI
☐	Use of liquid nitrogen or other cryogens in large quantities or in a manner that could displace oxygen. Specify cryogens, amounts, task (if applicable), location, and approximate room dimensions: "Large quantities" include any cryogen piped in from a tank located outside the building. For liquid nitrogen, large quantities would be more than one freezer and one attached liquid cylinder per room. FILLING a cryocart or cooler is a task that could displace oxygen.	☐
☐	Heating of concentrated perchloric acid (60% or more). Indicate location, concentration, amount, and frequency of use:	☐
☐	Use of chemicals that are acutely toxic category 1 by inhalation or skin contact in the concentration purchased. List acutely toxic chemicals in the laboratory:	☐
☐	Use of hydrofluoric acid List quantities and concentration:	☐
☐	Use of reactive, pyrophoric & explosive chemicals that are considered high risk (examples are as follows):	☐

	Contact with water liberates toxic gas, reacts violently with water, pyrophoric liquid or solid – Category 1, Explosives –unstable or divisions 1.1 -1.3, self-reactive or organic peroxides (Type A), self-heating –Category 1 List materials or classes of materials:	
☐	Chemical procedures involving pressure, vacuum, or heat when failure of the container could result in significant physical hazards, exposure to toxic materials or fire. List procedures:	☐
☐	Other, not identified above. List:	☐

Controlling Exposures & Hazards – Work Practices
Some laboratory work may not meet the definition of "high risk procedures" above but may introduce additional risk because of when and/or how the work is conducted.

The following work practices require approval from the PI.

Provide details for each, if applicable, in your laboratory:

Working alone:
Unattended Experiments:
Indicate what safeguards are in place for unattended experiments:

NOTE: If any unattended operation involves the use of a flammable or highly toxic material, prior approval must be obtained from the Department Chair.

Laboratory Specific Information for Chemical Waste Disposal:

☐ Our laboratory generates chemical waste:
Chemical waste is accumulated in the laboratory, provide location:
A satellite accumulation area sign is posted: YES ☑ NO ☐
Chemical waste labels are stored in the laboratory: YES ☑ NO ☐
If yes, provide location:

☐ Our laboratory does not generate chemical waste

Emergency Response
For general emergency response procedures can be found in the Emergency Action Guide, see the Rowan Emergency Preparedness Information. Specific information on hazardous materials can be found here. Specific information on chemical spills can be found here.

Emergency Assembly Point
Information on building evacuation can be found in the Emergency Action Guide, see Building Evacuation for your Building Assembly Areas.

Our laboratory is Emergency Assembly Point is:

Spill Clean Up Supplies and Instructions:
Spill clean-up supplies are located:
Usage information: (Refer to instructions in prepared kits or SOPs, or provide instructions here):

Incident Report Form
The Incident Report Form can be found here.

Use the Incident Report Form to report campus incidents and employee work-related injuries. These incidents may include, but are not limited to, slips and falls, laboratory events, needlestick injuries, and/or other incidents that may require medical assistance.

Certification
By electronically signing and dating this document, the Principal Investigator certifies that their Laboratory Specific Chemical Hygiene Plan is accurate and that it effectively provides for the chemical safety of faculty, staff, employees, and students in this laboratory.

Electronic Signature:

Date:

Annual Review and Updates

By electronic signing and dating here, the Principal Investigator certifies that the required annual review (and update, if needed) of this Laboratory Specific Chemical Hygiene Plan has been completed, and that it continues to be accurate and to effectively provide for the chemical safety of faculty, staff, employees, and students in this laboratory.

PI Electronic Signature	Date	Updates (Y/N) State updates in this column

CHEMICAL HYGIENE AND LABORATORY SAFETY TRAINING DOCUMENTATION

The Principal Investigator (PI) of the lab is required to review and complete the entire list below

- annually with all lab members,
- when new procedures are created,
- whenever changes are made to the Chemical Hygiene Plan (CHP) or lab procedures,
- and with all new lab members before lab work is started.

Lab members must

- acknowledge all items have been reviewed,
- agree to follow procedures,
- and sign below.

Once completed, this document must be uploaded into SciShield.

PI is required to check each item when completed:

☐ Ensure all lab members have read and know where to find a copy of Rowan's CHP and the Laboratory Specific CHP, including Standard Operating Procedures.

☐ Review how to locate important reference materials on laboratory hazards including safe handling, storage, and disposal practices.

☐ Review chemical inventory and how to locate Safety Data Sheets for chemicals in SciShield.

☐ Review physical and health hazards in this laboratory.

☐ Review engineering controls, work practices, and personal protective equipment needed for protection from the hazards in the laboratory.

☐ Review the location of fire extinguisher(s), emergency safety shower, emergency eyewash, emergency exit, and fire alarm pull station for this laboratory.

☐ Review what to do in case of an emergency (spill, injury, fire).

☐ Review the assembly point for emergency evacuations.

☐ Review laboratory-specific Standard Operating Procedures and guides covering procedures and instrumentation.

PI – Electronic Signature: Date:

Lab Member Electronic Signature	Date