- Sash openings should be kept as far down as possible while working in the fume hood. When the fume hood is not in use, the sash should be completely closed.
- Do not block the air baffles at the back of the fume hood. Do not place anything closer than 3 cm (1 inch) to the back of the inside of the fume hood.
- Keep apparatuses at least 15 cm (6 inches) away from the front of the fume hood. Use stands to elevate bulky apparatuses to avoid disrupting the air flow through the fume hood.
- Keep the fume hood clean and uncluttered. Apparatuses and chemicals should normally be kept in the fume hood only if they are a component of the operation for which the hood is being used.
- Do not use fume hoods for long---term storage of chemicals or apparatuses.
- Do not modify the interior of the

Emergency Response Procedures

More information available at https://www.ufv.ca/safety-and-security/emergency-management/emergency-guides/

Emergency and First Aid information

Fire
Police
Ambulance
Hazardous Material Response

First Aid	1-855-282-7770 (Local 7770)
Security	1-855-239-7654 (Local 7654)
Environmental Health & Safety	604-557-5272 (Local 5272)

Following a spill:

- Stay clear and warn others in the immediate area of the spill.
- Isolate the area around the spill.
- Assist injured or contaminated persons if you are trained to do so.
- Assess the situation and determine if it constitutes an emergency and call **911**.
- Proceed to clean---up the spill if it is minor, spill clean---up supplies and equipment are available if trained local personnel are able to clean it up.
- Regardless of severity, all spills must be reported to Security.

Refer to UFV's Chemical Spill Response Guideline

Fire

In the event of a fire:

- Warn others in the immediate area of the fire or explosion.
-

Organic Solvents	Skin damage – absorbed through intact skin Long term or repeated use may cause chronic effects such as nervous system damage, kidney and liver damage	Chemical resistant gloves Safety glasses with side shields	Use in fume hood Review MSDS
Water & Air Sensitive Compounds	Ignite spontaneously when in contact with air or moisture Skin and eye damage	Face shield Lab coat from natural fibh010.4233 -/MCID 8 ∋Da6damage	

Compressed Gases	High pressure Health hazard dependent upon type of gas Asphyxiation	Gloves Safety goggles or face shield	Gas cylinders secured upright with Strap or chain to a stable structure (e.g., wall). Use one strap per cylinder. Gas cylinder valve protection

Table 2: Common Processes/Equipment In Chemical Research Laboratory

Process	Potential Hazards	Control Measures
Solvent Distillation	Fire Explosion Reactive metal hydrides Skin and/or eye damage	Set up solvent stills inside fume hood or a ventilated enclosure Use smallest volumes of solvents possible Use inert gas to keep solvents dry and free of oxygen Interlock water supply with electrical connection to turn electricity OFF in the event of water supply failure. Use safety goggles, gloves, lab coat, closed---toe shoes
Centrifuge	Cuts from broken tubes Aerosol inhalation	Properly balance tubes when loading the centrifuge Close the lid before operating the centrifuge Wait a few minutes after centrifuge has stopped to allow aerosols to settle before opening the centrifuge Perform regular maintenance and cleaning as per manufacturers recommendations
Vacuum Pumps and lines	Risk of implosion Flying glass Chemical splash	Place cold traps between the apparatus and the vacuum source Vent rotary pumps to an air exhaust system Protective guards on belt---driven pumps Wear safety glasses with side shields
Oil Baths	Hot temperature Fire	Use oil that has a flash point higher than the desired temperature; Use insulated gloves

Respirator – specify type and purpose		
Instructions on the cleaning & maintenance of personal protective equipment listed above.		

C. Chemical Safety

Instruction on the appropriate decontamination procedures in this lab.		
Instructions on clean---up of biohazardous spills and decontaminating self.		
Instructions on reporting of biohazardous spills and exposure		
Instruction on the use of appropriate Biosafety Cabinet		
F. Hazardous Waste Disposal	**Yes**	**N/A**
Instruction on segregation and storage of hazardous chemical, biohazardous and radioactive waste		
Instruction on disposal of sharps (e.g., syringes)		
Instruction on disposal of waste glassware		
G. Laboratory Equipment (e.g., centrifuge, oven, solvent stills, RotoVaps, etc. --- Add extra sheets as required)	**Yes**	**N/A**
Centrifuge		
Autoclave		
H. Other (List specific training – Add extra sheets as required)	**Yes**	**N/A**
Working with hydrofluoric acid		
Working with air & water sensitive chemicals		
Working with hydrogen sulfide		

I _____ was instructed on all applicable points in this laboratory safety training check2.41 0Tc 9 (ng)5/ f 0.71 0u Tw Tc 0 Tw Tc 0yTc 0 Tw und 4i1641 0(ni)-3.Tc 0 Td(2

Appendix C: Safe Operating Procedure Template

LABORATORY SAFE OPERATING PROCEDURE

(to be used for hazardous chemicals or processes or specialized equipment)

Process:	
Prepared By:	
Location (Room # and Building):	
Supervisor:	**Phone#:**
	Emergency/ After-hours Phone#:
Hazard Identification: *(Identify hazards associated at each step of the process or equipment as identified in hazard assessment; include special instructions on storage and handling of hazardous materials)*	

Engineering Controls:*(List engineering controls e.g., fume*

Emergency Response Procedures: *(Clearly indicate procedure to be followed in the event of accidental exposure, spill, or injury)*
Hazardous Waste Disposal Procedures: *(All hazardous waste shall be disposed through the University hazardous waste management system. Hazardous waste pick-up requests can be made through Chematix)*

Prepared By: **Date:**

Approved by: **Date:**
(Department Chair)

Appendix D: Chemical Laboratory Inspection Checklist

Principal Investigator: **Date:**

Room & Building: **Inspected By:**

A. Documentation	Yes	No	NA	Comments
Are emergency procedures posted?				
Is a Chemical Spill Response Guideline available?				
Is the Laboratory Chemical Safety Manual available?				
Is the chemical inventory available and up to date?				
Are SDSs available for al9.72 532.56 0.48 Bi olaidand				

	Yes	No	NA	Comments
All chemicals have WHMIS compliant labels?				
Chemicals segregated by compatibility class?				
Chemicals dated upon receipt?				
Are peroxide forming chemicals labelled with opening date?				

Appendix E: Laboratory Container Labels – Examples

Workplace Label –