

#	Lab Safety Survey	Recommendation
General Lab Safety Issues -		
1	No Emergency Contact Sign on Front Door	Equip entrance doors with signs containing emergency contact information. All entry
2	No signs for the following; Safety Shower, Eye Wash, First Aid Kit and No Eating signs.	Post signs indicating location of safety-related items.
3	"No Food" sign was not present on refrigerators, freezers, and/or	Post a "No Food" sign on all refrigerators, freezers, and microwaves in the laboratory.
4	Storage not at least 18 inches below sprinkler heads and/or not at least 24 inches below ceiling.	Avoid storing materials and equipment on top of cabinets. With all stored items, maintain a clearance of at least 18 inches from the sprinkler heads or at least 24 inches from the ceiling to allow proper functioning of the sprinkler system.
5	Current and updated Laboratory Personnel List not submitted in electronic form	Submit a current personnel / worker list for your laboratory in electronic form using the format provided by EHS.
6	Chemical Inventory not available or updated to the EHS electronic format.	Submit a current or updated chemical inventory for your laboratory in electronic form using the format provided by EHS. Inventories assist with lab safety programs, training, container management, SDS management, PPE and ventilation needs, fire and life safety, first responders during fires and accidental releases, etc.
7	Improper clothing being worn in the lab	Open-toed shoes and shorts should not be worn in labs. If rotating equipment is used, long hair and loose clothing should be restricted. Legs and feet should be covered by closed-toe shoes, long pants or skirts which fully cover the legs (no sandals, open-toed shoes, or shorts), long hair should be confined and loose clothing and jewelry should be secured before beginning work. Wear a lab coat or apron specific for the hazards of the procedures performed in the laboratory. This includes, but is not limited to, using flame resistant clothing for use with pyrophorics, acid resistant protection when working with acids (especially HF), and protective items when working with hot or cold materials. The Principal Investigator or Designee is responsible for enforcing the protective clothing needed. If rotating equipment is used, long hair and loose clothing should be restricted.
8	Food for human consumption observed in the laboratory	All food should be stored in designated areas, consumed outside the laboratory; with no food/drink labels on items intended for lab experiments.
9	Floors not clean, dry, and/or free from cracks.	Keep floors clean and dry to avoid slips, trips, and falls.
10	Work areas and bench tops excessively cluttered.	Keep bench tops uncluttered. Housekeeping is pertinent to safe laboratory operations.
11	Step stool or ladder not available to reach high places.	Avoid falling injuries resulting from inadequate means of accessing elevated materials.
12	Work area not properly illuminated.	Replace light bulbs as necessary.
13	Cords (electrical and telephone) not secured on the floor.	Prevent tripping hazards by properly securing loose cords in the walkway.
14	Electrical panel not easily accessible.	Ensure easy access to electrical panels and panel doors must be easily opened. There must be a 3-foot clearance in front of electrical panels.
15	Laboratory entry door not closed and locked when unattended	Close laboratory doors to contain hazards, to maintain security and maintain fire safety. Air flow in most labs should be negative room air pressure with respect to the hallway; front door must be closed to prevent chemical vapors from exiting the lab into the building hallway. Lock all unattended laboratories at all times to maintain security.

16	There was not a first aid kit available, stocked, and accessible	Ensure each laboratory has a stocked first aid kit or a sign indicating the location of the nearest first aid kit.
17	The laboratory did not have an eye wash available, operative, and tested frequently	Ensure an eye wash is readily accessible. If not in laboratory, post a sign indicating location of nearest eye wash. If eye wash is in another lab, ensure that it is accessible.
18	No Safety Shower available, operative, and tested annually	Ensure a safety shower is readily accessible in case of emergency. If not in laboratory, post a sign indicating location of nearest safety shower (<55 feet). If safety shower is in another laboratory, ensure that it is accessible.
19	There was not a Spill Kit available (chemical/biological/radioactive as appropriate)	Purchase a Chemical Spill Kit and place in an accessible location. Neutralizing and controlling chemical spills is a necessary laboratory practice.
20	There was not an Emergency Action/Evacuation procedure in place.	National Fire Protection Agency requires Emergency Egress procedures for all laboratories - Please note and post your laboratory's procedures for shutting down equipment and personnel responsible, emergency evacuation routes and meeting place,
21	Entrances, exits, work areas and aisles were not clear or were	Clear all egress and emergency evacuation routes to avoid slips, trips, and fall hazards.
22	Fire extinguisher(s) were not present, accessible or inspected	Have a Multi-Purpose ABC fire extinguishers available for the laboratories, Class D is needed if combustible metals are present. Ensure that no materials or equipment block access to the extinguishers. Extinguishers are available from the Fire Marshal -x.2110.
23	[Critical Items] Fumehoods were not operational or were not inspected within the past 12 months	Notify EHS or Facilities if the fume hood is not operational or needs testing.
24	Fumehood sash was not kept at a height of 18 inches	Operate fume hood at the working sash height of 18-inches.
25	Fumehood was cluttered or not accessible	Ensure satisfactory air flow by placing materials inside the hood no closer than 6-inches from the sash and keeping the work area as uncluttered as possible. Do not use the fume hood as a storage cabinet.
26	Biosafety Cabinet was cluttered or unaccessible	Ensure satisfactory air flow and containment of hazardous materials by placing materials inside the cabinet no closer than 6-inches from the sash and keeping the work area uncluttered. Never store supplies or samples in the biosafety cabinet.
27	Chemicals were not properly labeled.	All chemical containers must be labeled per the Hazard Communication Standard with the original manufacturer's label, or: Replacement Label if the original container label gets damaged or becomes illegible, Secondary Container Label filled out with chemical name and hazards (templates online). Small Containers or Samples – can have: A label hanging on the container or attached using tape; Logbook visible in the lab nearby with chemical name and hazards, when only sample number may fit on the container; or Acronyms list posted in the lab nearby with chemical name and hazards, when only acronym may fit on the container.

28	[Critical Items] No PPE available or it was not being used properly by Laboratory Personnel.	Provide lab coats, eye protection, and gloves as required. The correct type of chemical gloves must be used. If respirators are required, make sure the wearer has received respirator training and the correct cartridge is being used. *Critical items are areas of concern that are immediately dangerous to life and health which require prompt attention and corrective action.
29	Chemicals not properly stored by classification.	See UHCL Chemical Hygiene Plan for a list of incompatible chemicals. Incompatible chemicals should not be stored within close proximity.
30	Flammables storage cabinets not in good condition.	Ensure that the cabinet doors close tightly and cabinet walls are sturdy. Replace unsafe cabinets.
31	More than three flammables storage cabinets present.	Ensure there are no more than three flammables storage cabinets per laboratory.
32	[Critical Items] Flammable chemicals stored in a household refrigerator.	Refrigerators/freezers/coolers shall be prominently marked to indicate whether it meets the requirements for safe storage of flammable liquids (Flammable liquid means any
33	[Critical Items] Compressed gas cylinders not properly secured and labeled.	Cylinders must be stored in well-ventilated areas with their protective caps screwed on and the cylinder secured (e.g chained down) to reduce the chance of the cylinder being
34	Uncapped compressed gas cylinders found in the lab.	Secure and store excess gas cylinders outside the laboratory. The laboratory may not be
35	Laboratory Personnel have not completed the Laboratory Safety/HAZCOM training within the last year.	All UHCL Laboratory Personnel and workers must complete General Laboratory Safety and other Lab-specific Trainings provided by EHS and Principal Investigator before undertaking any activity in the laboratory.
36	Waste in containers not properly identified and labeled.	Label all waste containers. Identification of chemicals in waste container is required for proper disposal. Ensure that waste containers are labeled with "Hazardous Waste" labels. Waste cannot be picked up if it is not properly labeled.
37	Waste containers not in good condition.	Ensure that waste containers are in satisfactory condition or that waste is disposed of appropriately.
38	Waste containers with no closed lids/caps at all times to prevent leakage.	Avoid air contamination in the laboratory by keeping container lids on tightly at all times unless adding waste. When a waste container is 90% full, secure it with a cap, and start filling a new container.
39	Incompatible wastes not being stored separately.	Store incompatible waste in separate containers.
40	More than 55 gallons of hazardous waste stored.	Containers must be moved within 3 days of becoming full to the waste storage area. 55 gallons is the maximum amount allowed per individual lab satellite accumulation.
41	Secondary containment not being used to store waste containers.	Avoid contamination in laboratory due to spillage or bottles breaking; store glass waste containers in a secondary container.
42	Sharps containers (for syringes, razor blades, etc.) not in good condition.	Discard solid waste with sharp edges in Sharps containers (not waste baskets) to deter the possibility of skin lacerations.
43	Biological waste containers or bags not labeled or not in good	Dispose of biological waste in biohazard bags or biohazard containers.
44	[Critical Items] Damaged electrical cords on equipment in use.	* Critical items are areas of concern that are immediately dangerous to life and health which require prompt attention and corrective action.
45	[Critical Items] Needles in trash cans/glass waste boxes or protruding outside a sharps container.	* Critical items are areas of concern that are immediately dangerous to life and health which require prompt attention and corrective action.

46	[Critical Items] Egress is significantly impeded. (walkways and / or exits blocked)	* Critical items are areas of concern that are immediately dangerous to life and health which require prompt attention and corrective action.
47	[Critical Items] Access to emergency equipment is blocked. (not readily moveable)	* Critical items are areas of concern that are immediately dangerous to life and health which require prompt attention and corrective action.
48	Stacked chemical storage.	Chemical bottles should be properly placed on a flat surface instead of being piled up.
49	[Critical Items] Large quantities of flammable liquids not stored in flammable safety cabinets.	All flammable liquid containers should be stored in flammable safety cabinets. Large containers must be stored in flammable safety cabinets. There are also maximum quantities per 2hr firewall area of: 20 gallons max in flammable cabinets on the 3rd
50	Large quantities (> 1L) of flammable liquids stored above eye level.	Store large containers (>1 L) below eye level on low shelves in the approved flammable safety cabinet.
51	Chemicals stored in the fume hood.	Ensure satisfactory air flow by placing materials inside the hood no closer than 6-inches from the sash and keeping the work area as uncluttered as possible. Do not use the fume hood as a storage cabinet.
52	Biosafety Cabinet not certified or last inspection greater than one year.	Ensure that the current inspection tag is visible. Biosafety cabinet inspection by a certified inspector is required annually or any time the cabinet is moved or repaired.
53	No SDS available for chemicals accessible in the laboratory.	Inform Laboratory Personnel of the location of the SDSs and how to read/use SDSs. They
54	Excessive unused/empty compressed gas cylinders.	Secure and store excess gas cylinders outside the laboratory. The laboratory may not be used for storing excess gas cylinders, whether empty or full.
55	[Critical Items] Toxic gases or Hydrogen gas stored/used outside ventilated containment.	* Critical items are areas of concern that are immediately dangerous to life and health which require prompt attention and corrective action.
56	OTHER GENERAL LAB SAFETY ISSUES	

Chemical Safety Issues - None: 30 Set Subcategory to N/A

57	Full Chemical Safety Compliance	
58	Improper storage on flammables Liquids. Flammable liquid means any liquid having a flashpoint at or below 199.4 F (93 C) (29 CFR 1910.106(a)(19))	Store in approved safety cans or UL-rated flammable storage cabinet. Segregate from oxidizing acids and oxidizers. Keep away from any source of ignition: heat, sparks, or open flames. Never store flammable liquids in a domestic refrigerator. Only laboratory safe, explosion proof, or certified flammable liquid refrigerators can be used to store flammable liquids
59	Improper storage of Pyrophorics.	If in original container store in a cool, dry place, making provisions for an airtight seal. Inert gas-filled desiccators or glove boxes are suitable storage locations for most pyrophoric materials. Refrigerated material should be stored in non-combustible containment, away from flammables.
60	Improper storage of oxidizers	Keep oxidizers in an independent secondary container and label as "oxidizers". Keep away from flammable and combustible materials. Keep away from reducing agents such as zinc, alkali metals, hydrazine, oxalic acid, and formic acid.

61	Improper storage of Acids	Store acids in acid storage cabinet. Segregate oxidizing acids (such as nitric acid) from organic acid (such as acetic acid) and flammable and combustible materials. Segregate acids from bases. Segregate acids from active metals such as sodium, potassium, and magnesium. Segregate acids from chemicals that could generate toxic or flammable gases upon contact, such as sodium cyanide, iron sulfide and calcium carbide.
62	Improper storage of organic peroxides	Store peroxides at the lowest possible temperature consistent with their solubility or freezing point to minimize the rate of decomposition. Do not store them at or lower than the temperature at which the peroxide freezes or precipitates because peroxides in these forms are extremely sensitive to shock and heat. Store all peroxidizable compounds in tightly closed, air-impermeable, light-resistant containers, away from light, heat, direct sunlight, sources of ignition, oxidizers, and oxidizing agents. Storage under nitrogen may be advisable in some cases.
63	Improper storage of bases	Segregate bases from acids, metals, explosives, organic peroxides and easily ignitable materials. Do not store aqueous sodium and potassium hydroxide solutions in aluminum drip trays. These will corrode aluminum.
64	Improper storage of cyanides	Segregate from aqueous solutions, acids and oxidizers.
65	Dry picric acid in storage.	Unstable Explosives Shall not be stored in the laboratory. Typical example is Dry Picric Acid. Contact EHS for disposal.
66	Improper storage of Highly Toxic/Toxic Solids. Highly Toxic/Toxic solids and liquids refer to select carcinogens, acutely toxic chemicals, reproductive toxins and chemicals known to have undesirable biological effects.	store in general chemical storage, segregated from incompatibles. Ideally they would be stored separately from other chemicals and easily identifiable within the laboratory.
67	Improper storage of Highly Toxic/Toxic Liquids. Highly Toxic/Toxic solids and liquids refer to select carcinogens, acutely toxic chemicals, reproductive toxins and chemicals known to have undesirable biological effects.	The organic solvents and solutions (such as formaldehyde and chloroform) shall be stored in a flammable cabinet. Inorganic solutions & compounds should be stored in general storage in secondary containment.
68	Flammables and oxidizers cylinders stored within 20 feet or by a non-combustible barrier below 5 feet high having a fire resistance	Oxygen cylinders (empty or full) in storage shall be separated from fuel-gas cylinders or combustible materials (especially oil or grease), a minimum distance of 20 feet (6.1 m) or
69	Lack of SOP and/or training documents on pyrophoric and other	
70	Lack of SOP and/or training documents for hydrofluoric acid.	
71	Lack of SOP and/or training documents on Perchloric Acid.	Lab-Specific SOP will be required and Users must be given hands-on training for procedures/experiments involving perchloric acid before beginning work. Lab-specific SOP, training document including the signature page with each page initiated by all involved personnel shall be maintained by the Principal Investigator or Designee, and be submitted to EHS either electronically via the ehs@uhcl.edu or hard copy upon request.
72	Acetic acid was found stored with other inorganic acids without secondary containment.	Glacial acetic acid is highly flammable organic acid. Move the acetic acid into flammable cabinet but should also be kept in secondary containment in case of a spill.

73	Perchloric acids stored with organic acid	Perchloric acid must be stored away from organic chemicals, flammable or combustible materials and strong dehydrating agents such as sulfuric acid and anhydrous phosphorus pentoxide. Use secondary container if stored with other acids.
74	Perchloric acid stored in wood cabinet without secondary containment.	Perchloric acid should avoid storage in wood cabinets. Please store perchloric acid in a compatible corrosive cabinet.
75	Perchloric acid digestions conducted in a regular chemical fume hood	perchloric acid digestions of any size should always be conducted in a special perchloric acid hood that is equipped with a wash down system. Hoods used for hot digestions must be labeled. Perchloric Acid Hood Only. Organic Chemicals Prohibited. Solvents must never be used or stored in a designated perchloric acid hood.
76	The bottle containing perchloric acid has turned dark and has crystals forming around the bottom of the bottle.	Do NOT move the bottle. Immediately contact EHS for disposal.
77	No first aid supplies for hydrofluoric acid where the HF bottle is stored.	HF first aid kit containing calcium gluconate and calcium carbonate tablets located in immediate work area.
78	No Hydrofluoric Acid SOP posted in immediate work area.	HF SOP should be posted in immediate work area.
79	No training records for all lab personnel who work with or near Hydrofluoric Acid.	Hydrofluoric Acid Safety Lecture for all staff and students that work with or near HF. Contact EHS for assistance.
80	[Critical Items] Expired peroxide formers found in storage.	Peroxide-forming materials must be labeled with yellow Peroxide label, dated when opened, tested according to the schedule, and disposed of through EHS within one year from the date of opening or within the last test schedule, by the manufacturer's expiration date whichever occurs first. Consult the manufacturer's SDS to determine. *Critical items are areas of concern that are immediately dangerous to life and health which require prompt attention and corrective action.
81	Fire-retardant lab coats and gloves are not available for handling pyrophoric reagents outside the inert atmosphere of a glovebox.	6.6 Fire Retardant Clothing. 6.6.1 The provisions of 6.6.2 through 6.6.5 shall apply to all new and existing laboratories.
82	Missing information from Chemical Inventory.	Prepare or update a chemical inventory for each of your laboratories prior to the inspection. To ensure HAZCOM and NFPA regulation compliance, all laboratories are required to keep an updated copy of their chemical inventory on file, which must be completed using the template provided (online and in software), made available to EHS by email and uploaded into the EHSA software. The below information must be indicated on the chemical inventory at a minimum: CAS number, Chemical name, Location in the lab, Quantity, Receipt Date and SDS hazard statement. The specific information on any associated health or safety hazards must be made readily available to all Laboratory Personnel. For the Chemical Inventory Template see UHCL website at https://www.uhcl.edu/about/administrative-offices/environmental-health-safety/lab-safety under the heading Chemical Inventory.
83	[Critical Items] Hazardous chemicals / waste in containers or stored such that they are leaking or likely to result in a release.	Put a "Hazardous Waste" label on each container and move to waste storage. If the container is unstable, leave in place and contact EHS for pick up immediately.
84	OTHER CHEMICAL SAFETY ISSUES	