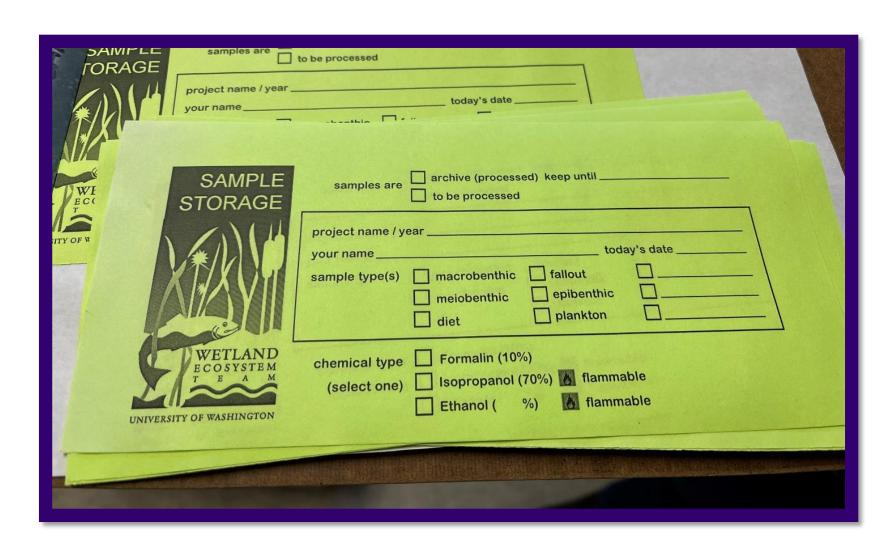
2021 LAB SAFETY AWARDS & INNOVATION EVENT

SAMPLE STORAGE SHELF LABELS THAT INCLUDE PROJECT AND CHEMICAL INFORMATION

Toft Lab, Aquatic & Fishery Sciences **College of the Environment**

Biological samples collected in the field often need to be stored temporarily for analysis or long-term for archiving purposes. The type of tissue being preserved and the methods used for analysis require different chemical solutions to be used for sample storage. The wetland ecosystem team in the Toft lab uses these cards to ensure

there is a system for capturing information about the type of sample being stored, what it will be used for, and what type of chemicals it contains, including known hazards.



CHEMICAL REACTION CARDS TO PROVIDE INFORMATION ABOUT EXPERIMENTS IN PROGRESS

Michael Lab / Department of Chemistry **College of Arts & Sciences**

Derek Obenschain, a former graduate student in the Michael lab, designed the reaction safety card that is now distributed to all labs in the department. These cards are an effective way to inform people of the chemicals and

hazards present in an experiment in progress that needs to run overnight or temporarily without supervision.



GLOVE BOX USERS PROVIDED BASKETS TO CONTAIN AND MANAGE THEIR MATERIALS

Ginger Lab / Research Training Testbeds Clean Energy Institute, College of Engineering

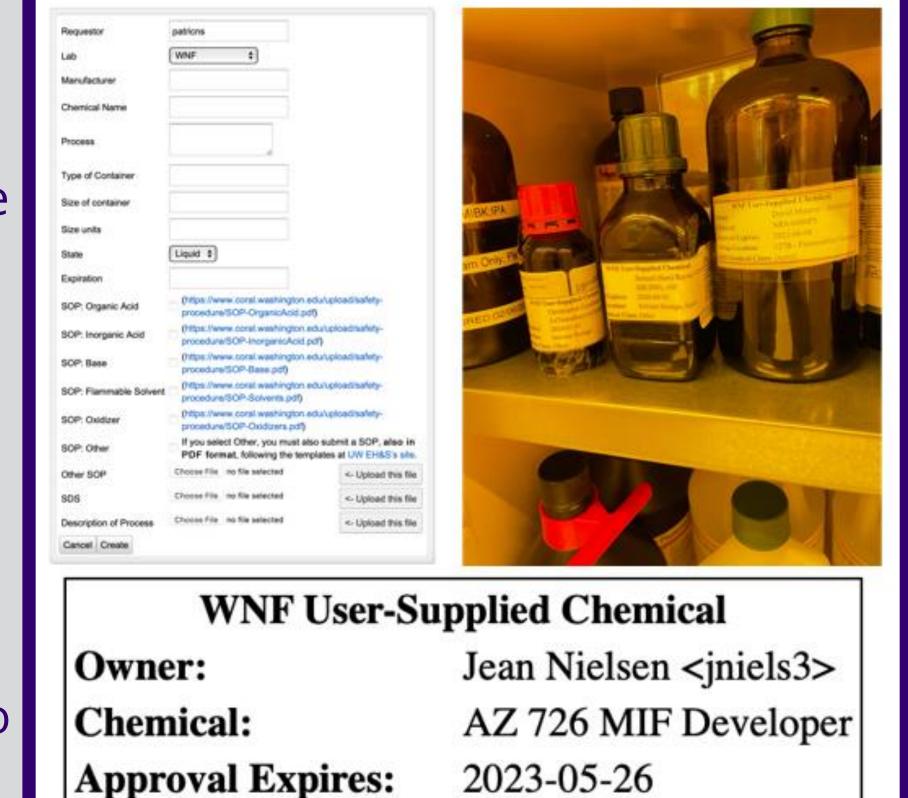
Glove boxes can be challenging to manage due to the complexities of moving items in and out of them. This facility gives each user a basket to keep all their items in and routinely clears out items not stored in a basket. This system keeps the glove boxes organized, displays content ownership, and helps track approved users.



CHEMICAL CONTAINER LABELS PROVIDED FOR FACILITY USERS TO STANDARDIZE INFORMATION

Huffman Lab / Washington Nanofabrication Facility Clean Energy Institute, College of Engineering

WNF manages over 15000 sq. ft. of specialized laboratory space, serving 130 unique users per month. Many chemicals used in the space are specialized and brought in by users. WNF's User Supplied Chemical process ensures appropriate reviews for safety, compatibility, SOPs, SDSs, waste practices, and MyChem updates. It leverages the CORAL administrative platform, originally implemented at WNF, and is able to generate tracking labels automatically for all chemicals in the facility.



Storage Location:

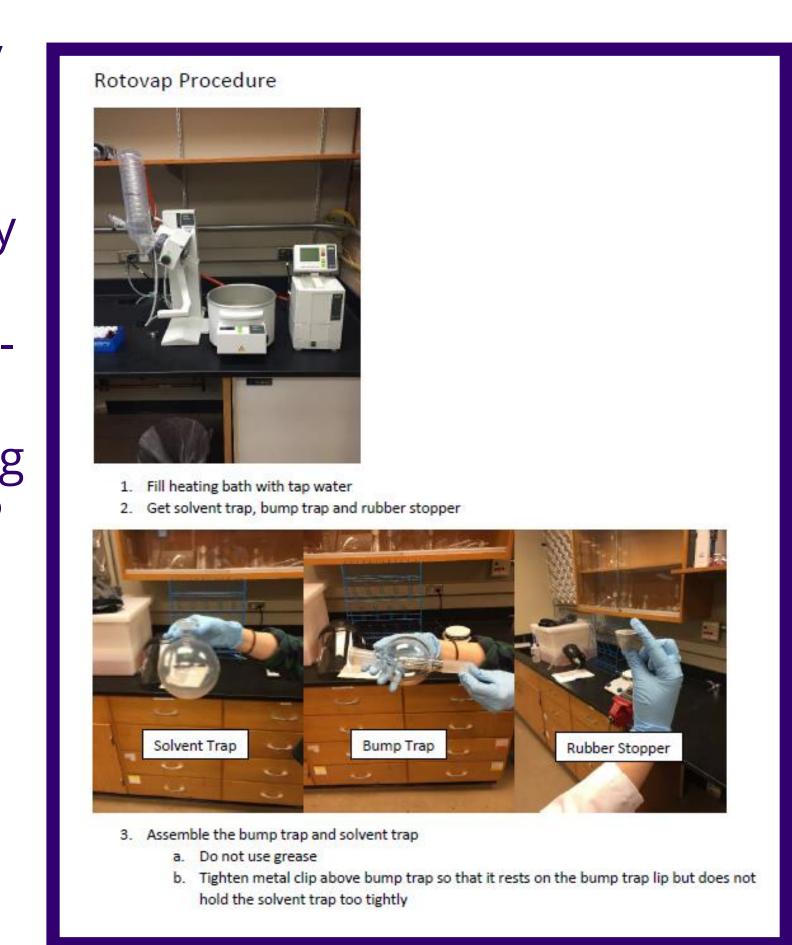
GHS Chemical Class: Base

115K - Base Storage

ROTOVAP SOP INCORPORATING PHOTOS OF LAB MEMBERS CONDUCTING THE WORK

Holmberg Lab Chemical Engineering, College of Engineering

Providing clear and specific protocols is key to a strong safety program. Information can be given in a variety of formats, and it is important that locationspecific details are captured. The Holmberg lab has made their SOP for rotovap usage very lab-specific by incorporating photographs demonstrating their own personnel using equipment in their actual lab.



FUME HOOD USER STATUS NOTIFICATION SYSTEM

Kovacs Lab Chemistry, College of Arts & Sciences

Fume hoods are often used by many different people, and sometimes they are shared by different research groups. Having a simple and clear system to notify people of when a fume hood is available for use or when experiments are in progress helps prevent people from getting exposed to hazards they are unfamiliar with.



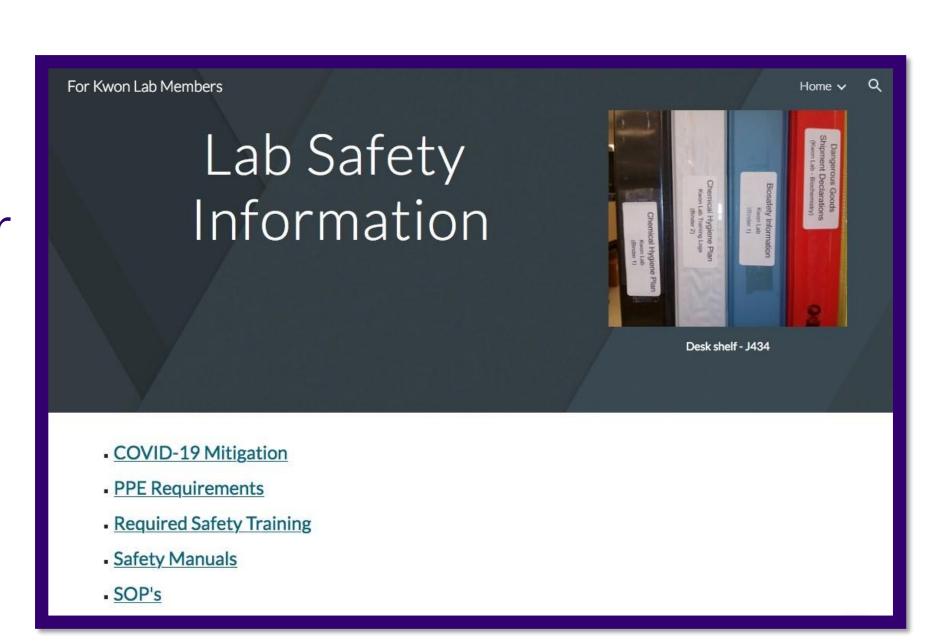
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SAFETY DOCUMENT WEBSITE FOR LAB MEMBERS AND VISITORS

Kwon Lab, Biochemistry, College of Arts & Sciences

Kenneth Dombek, the Kwon lab's chemical hygiene officer, designed a website for the group that houses all their safety resources, including COVID-related information, PPE requirements, safety training documents,



safety manuals, and standard operating protocols.

ANNUAL CLEAN UP CHECKLIST FOR LABS THAT IS REVIEWED BY THE DEPARTMENT

Department of Obstetrics & Gynecology School of Medicine

The department of Obstetrics and Gynecology sends out a checklist to all their labs on an annual basis and requires them to conduct a deep clean at a time determined by each lab. PIs are tasked with ensuring their personnel complete this activity within a month, week, or day. A completed checklist is then submitted to the department's research resources drive. The checklist was written by Claire Levy, Sean Hughes, and Katie Hitchcock-Bernhardt, and instructions for it are included in the department's cleaning policy for laboratories.

He	odate March 2021 - Download, do not edit this document!
Op.	posite march 2021 - Download, do not edit tills document:
Γ	Department of Obstetrics and Gynecology Laboratory Clean Up Checklist
	is checklist should be used by all research groups once a year to keep lab and research
	aces clean and minimize clutter. See Department Lab Cleaning and Decommissioning Policy
	more details. Not every item on this checklist will be relevant to your group- just mark these ms N/A. Please complete this form yearly, and upload it to the Research Resources Google
	sam Drive with your Pl/research group name, and date of completion in the filename.
La	b/Research Group Name:
	ate Clean Completed:
La	bb/Office Location(s <u>):</u>
Fr	eezers in Lab (make and model) <u>:</u>
E,	or Laboratories
	or <u>Laboratories</u> upplies to have on hand
	Bleach Bleatin him as hyeliate for bleaching things. Sort if they fit in the sink
	 Plastic bins or buckets for bleaching things. Best if they fit in the sink. Spray bottles (>1!)
	Eye protection for ice scraping and splashy cleaning
	Bench liners ("diapers"/ chux pads)
	Biohazard bags and boxes: Make sure they are acceptable for your autoclave facility,
	some only want certain sizes/types Sharps containers
	Autoclave tape
	Freezer ice scraper (smaller helps you get in the crevices, a "lab" one will be more
	expensive but not better so check for automotive)
	Label maker or printable labels
	DNA-away/ RNAse remover This less along the foregoing and LN2 use (illustrated and along).
	Thicker gloves for freezer and LN2 use (like gardening gloves) EHS chemical waste labels (printable from EHS website)
	Sharpies
	Lab equipment decontamination forms
	Bankers boxes for file archiving
	Current records retention schedule
42	nort tasks to do when you need a break from sitting or pipetting
	Bleach/DNA-away dirty racks
	□ Clean/organize benches
	☐ Empty/Take out biohazard waste
	Redistribute pens and calculators to benches. Order more if they are scarce.
	Shorter tasks that can be done at the computer
	Set up a chemical waste removal request Move stuff from your desistor to engagainte file locations.
	 Move stuff from your desktop to appropriate file locations File those scans of papers you made when you were standing up
	☐ File those scans of papers you made when you were standing up ☐ Order some box cutter holders (https://www.officedepot.com/a/products/487899/Office-
	Depot-Brand-Steel-Box-Cutters/) so you don't have plain razor blades around
	☐ Update the contact info for your freezers and print for later attachment
	□ Scan packing slips and send to Winston
	Things that take a little longer
	 Check if drawer/cabinet labels match contents. Relabel if needed. Lab tape labels are
	fast but they will dry out and be really hard to remove. At least tab the end of the tape for
	easier removal.
	☐ Hot tip: If you have metal drawers/cabinets, order some really cheap "business
	card" fridge magnets and print labels to stick on them. Stick the magnets wherever you need them. Now you can move them around!
	Move samples that are loose in racks in the fridge/freezer to a labeled box
	☐ While you're there, throw away what you don't need or if you don't know what it is
	(make sure you check the records retention schedule and any IRB applications
	pertaining to samples before throwing them out.)
	 Assess your fridge/freezer situation and think about if racks would make things neater

INCLUDING WORKSTATION INSPECTION SHEETS IN THE COURSE

MANUAL

Symon Lab Teaching Labs, UW Bothell

To promote safety in the chemistry teaching laboratories, a course manual is produced that includes for each exercise:

an SOP, SDS sheets for substances used, a list of requirements, a detailed instruction sheet for preparation of reagents used, a sheet to collect suggestions for changes/improvements, and a copy of the experiment.

At the end of each experiment an inspection sheet is completed for

each of the laboratory work stations and students are held accountable for any incomplete tasks. This system has been in use in the general chemistry teaching laboratories for over three years and has resulted in significant improvements in laboratory safety and hygiene standards.

SAFETY PRACTICES ASSESSMENT TOOL FOR FACILITY USERS BUILT AS A GOOGLE FORM

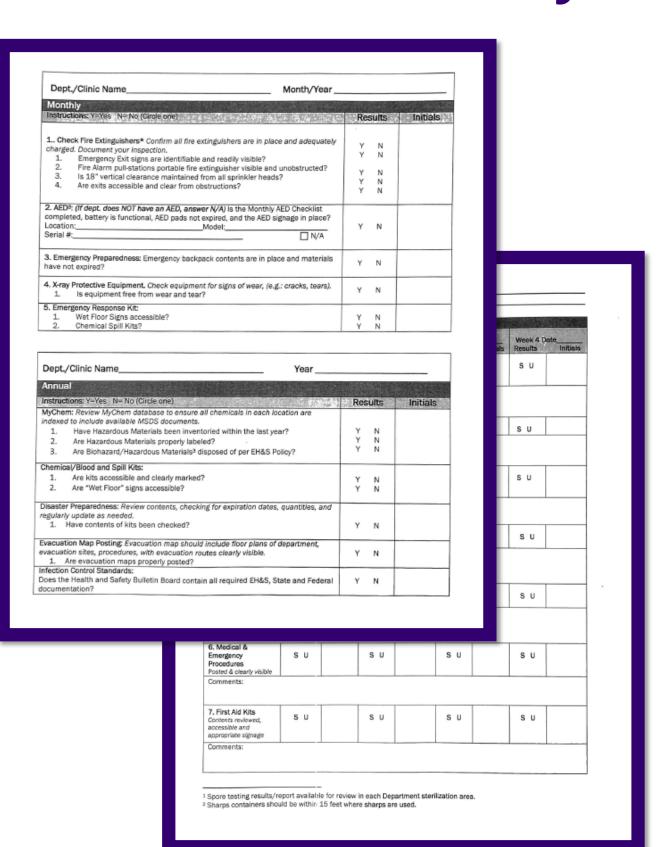
Chan Lab Biology, College of Arts & Sciences

Dr. Wai Pang Chan runs the Biology Imaging Facility in the Physics / Astronomy Building. He has built a Google form to collect information from facility users about the work they plan to do. New users or current users wanting to get trained on using a specific machine complete the form, and it determines what EH&S safety training courses to take, the relevant SOP, and PPE needed.

For users of the Biology Imaging Facility	
waixchan@gmail.com Switch account	@
The name and photo associated with your Google account will be recorde files and submit this form. Your email is not part of your response.	d when you upload
* Required	
Your name *	
Your answer	
A brief description of your project Your answer	
What kind of sample will you use?	
Choose	
biohazardous live sample	Clear fo
non-biohazardous live sample	

CHECKLIST FORM TO RECORD WEEKLY, MONTHLY, AND ANNUAL SAFETY CHECKS

Carole Green Restorative Dentistry, School of Dentistry



Carole Green, and administrator in the Restorative Dentistry department, started the practice of distributing a safety checklist to laboratories and clinics in the department. The checklist is an efficient way to record all different types of safety checks conducted on a weekly, monthly, or annual basis on just one sheet of paper; streamlining their safety records.

BASECAMP SYSTEM THAT TRACKS SAFETY TASKS AND RECORDS COMPLETION

Golden Lab Biological Structure, School of Medicine

Jia Jie Choong, the Golden lab's chemical hygiene officer, has a passion for software design. He has hardcoded a website and system for the group that allows them to track all safety-related tasks that need to be done for the lab. The system is also able to send people notifications when a task has been completed, including corrective actions noted on a recent visit from EH&S.



2021 LAB SAFETY AWARDS & INNOVATION EVENT

LAB SAFETY AWARD EH&S

MONTHLY CLEAN-UP DAY WITH PARTICIPATION FROM ALL LAB PERSONNEL

Zhang Lab Chemistry, College of Arts & Sciences

Having a dedicated lab clean-up day each month can really refresh a lab space and resolve common problems in many labs (e.g., build up of waste containers, glassware, busy lab benchtops) yielding a clean workspace and more productive

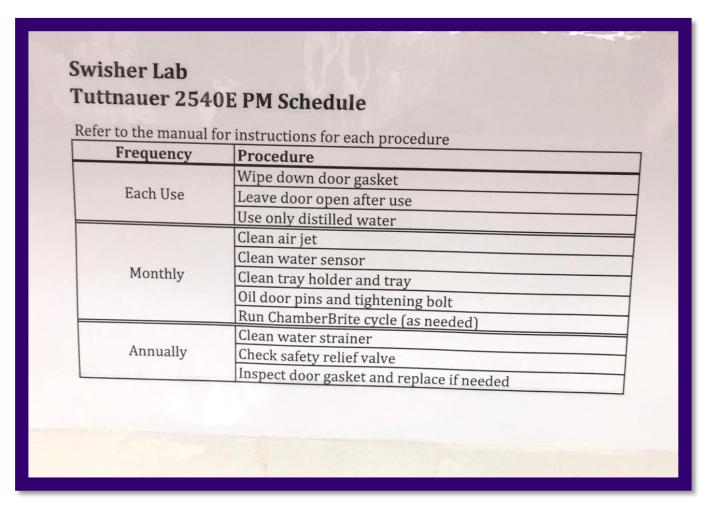
research. It is also a way to demonstrate prioritizing safety and making attention to safety part of routine work. This practice has made a visible difference for all working in the lab.



DAILY, MONTHLY, AND ANNUAL MAINTENANCE CHECKLIST FOR LAB'S AUTOCLAVE EQUIPMENT

Swisher Lab Obstetrics & Gynecology, School of Medicine

A variety of autoclaves are used on campus, including small tabletop ones. These are usually maintained only by the researchers who use them, so it is important that maintenance checks do not get forgotten. The Swisher lab

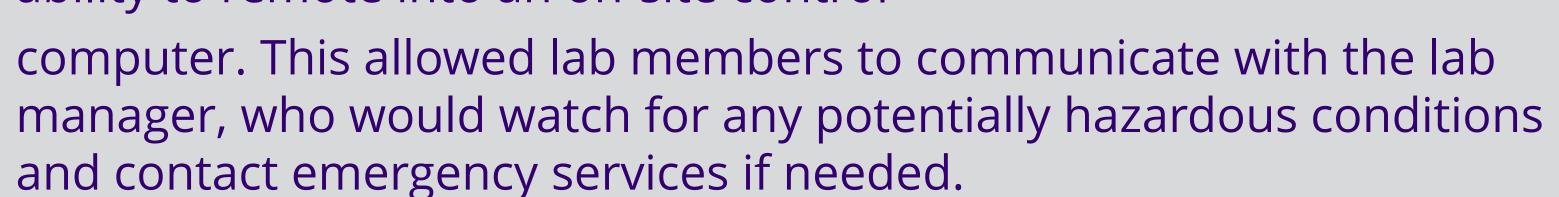


has created a checklist that they can post next to the equipment to remind users of the daily, monthly, and annual checks that need to be performed. Having the checklist posted next to the equipment reminds people to use it.

VIRTUAL BUDDY SYSTEM TO PROVIDE TRAINING AND GUIDANCE WHILE SOCIAL DISTANCING

Fabrication Research Lab Computer Science & Engineering, College of Engineering

The Fabrication Research Lab created a virtual buddy system by adding cameras to the space and combining them with the ability to remote into an on-site control



This system allowed critical research to continue while ensuring social distancing and reduced facility occupancy and maintaining most of the safety benefits of a buddy system in the laboratory.

Restorative Dentistry Department School of Dentistry

PROVIDING PLATE COVERS TO BLOCK NON-GFCI RECEPTACLES

Electrical outlets need to be replaced with GFCI receptacles if a sink or work with liquids is installed in the same location. Replacing outlets can be expensive and there may no longer be a need to have any receptacles in that location. To address this situation in their laboratories, the department of Restorative Dentistry has given out covers that can be placed on the outlets to prevent them from being used and to protect personnel from the electrical hazards.

PHASING OUT USAGE OF OPEN FLAMES TO REDUCE ACCIDENT RISK



To reduce the risk of incidents or accidents with open flames, the department of Restorative Dentistry has asked all of their laboratories to commit to phasing out usage of open flames by a specific date. Equipment and practices that include open flames are being replaced with new tools and practices that have lower risk.

EVACUATION PRACTICE DRILLS CONDUCTED BY THE LAB MANAGER

Mourad Lab Neurological Surgery, School of Medicine

The Mourad lab's chemical hygiene officer, Kahte Culevski, routinely conducts evacuation drills for lab personnel to ensure that they know how to get out of their lab spaces safely in the event of an emergency.



Floorplans showing the designated evacuation route are posted in each of the lab's rooms to help guide personnel when needed.

USING MYCHEM TO LIST INSTRUCTIONS FOR CHEMICAL USAGE IN THE LAB

Ceze Lab, Computer Science & Engineering, College of Engineering

All laboratories on campus use MyChem to store their chemical inventories, and everyone is required to use an SOP for working with those chemicals. It can be complicated to know which SOP to use for a specific chemical if it has multiple hazards and uses. To address



this, the Ceze lab came up with the system of using MyChem to store notes about which of their SOPs to use for every chemical in their inventory, making it easy to know what to do.