

University of Illinois
F. Seitz Materials
Research Lab (MRL)

March 2018



Important Dates and Reminders

March:

MRL Engineering Open House

- March 9-10; 2008 Supercon/Supercon lobby

MRL safety contacts pre - DRS audit meeting

- March 12th at 2pm; 190ESB

AFM & EDS Workshop

- March 13th - Please register [here](#)

Kurt Lesker Vacuum Workshop

- March 27-28; 190ESB

April:

DRS lab safety audits for MRL are expected to begin in April

June:

2018 Advanced Materials Characterization Workshop

- June 5 and 6, 2018
- <http://mrl.illinois.edu/amc2018>

Safety Newsletter

This month's topics are laboratory safety plans and chemical spill kits.

Laboratory Safety Plans (LSP)

Laboratory safety plans must be lab specific and accessible to everyone who works in the lab. They should provide information on the specific hazards to the lab and how to control possible exposures. There should be training information and records found in the lab safety plan. The [DRS layout for a lab safety plan](#) satisfies the OSHA requirement for a chemical hygiene plan. There are four elements every lab safety plan should have. These include:

Safety Management Procedures:

- [Safety contacts](#) - One or more individuals that are selected by the PI to assist with SOP's, training, waste disposal, monthly fire extinguisher checks, and weekly eyewash testing.
- [Laboratory Hazard Profile](#) - The hazard profile outlines the hazards found in the labs and that are addressed by SOP's and training. Once it is created you can go back in and edit it as your lab hazards change.

To start a laboratory hazard profile, complete this [DRS chemical hazard assessment](#) and send it to DRS. You can also send them your chemical inventory list for them to help build your laboratory hazard profile.

- [Annual Review](#) - It is required by OSHA to have the laboratory safety plans evaluated annually. New hazards, new policies, SOPs, and training should be reviewed throughout the year. It should be documented once the annual review has been completed, even if there are no changes made to the lab safety plan.
- [Laboratory Safety Audits](#) - DRS completes the Lab Safety Audit for University of Illinois labs once a year. You can view the audit findings and address them by logging into the [DRS website](#).
- [Laboratory Door Signs](#) - These are created once you complete the [laboratory hazard profile](#) on the DRS website. The sign includes emergency contacts and summary of hazards present in the lab. These should be done annually or when safety contacts or hazards change. To request a new door sign, you can email drs-lss@illinois.edu.

Standard Operating Procedures (SOP):

- [Risk Assessment](#) - Before completing an SOP, you need to perform a risk assessment. This process helps identify the specific hazards in your lab and safety issues associated with your experiment procedures. Here is the risk assessment worksheet for [chemical experiments](#). Here is the risk assessment worksheet for [biological experiments](#).
- [SOP Format](#) - You can have SOPs for types of chemicals (flammable, acidic, HF, etc.), individual SOPs for each procedure, or you may have procedures that have common risks that can be covered in one SOP.

Elements that need to be incorporated into an SOP include: Scope/Synopsis, Hazard identification/Risk Assessment Summary, Procedure/Techniques, Disposal/Cleanup, Emergency Response, and Training Documentation.

Below are two available templates. However, you may write your SOP in a different format that better suits your procedures and trainings in your lab.

DRS SOP template, [here](#).

College of Engineering SOP template, [here](#).

Useful Contacts

MRL Safety Committee
safety@mrl.illinois.edu

MRL Safety Engineer
 Maisie Kingren
mlswans2@illinois.edu
 217-244-8637

Division of Research Safety
drs@illinois.edu
 217-333-2755
www.drs.illinois.edu

Safety and Compliance
fsserviceoffice@illinois.edu
 217-333-0340

www.fs.illinois.edu/services/safety-and-compliance

Laboratory Safety Guide:

- This guide provides the basic safety information and expectations for laboratories here on campus. This guide should be printed out and put in your LSP:

<https://www.drs.illinois.edu/site-documents/LaboratorySafetyGuide.pdf>

Safety Training Checklist:

- Minimum Training requirements** - Minimum training requirements for lab personnel list by DRS include: Read the laboratory safety guide, take DRS online training for Laboratory Safety, review the location and use of safety equipment, Review hazards and SOPs, review lab specific information and policies, and participate in ongoing training.
- Checklist Format** - Using a template is not required, however you **MUST** have documentation that lists the required trainings for the lab and documents who took them and when the training was completed.

Here is a [template for a training checklist](#). You can delete and add items as needed.

Chemical Spill Kits

All labs must have fully assembled spill kits for the hazards that are present. Having the correct materials will help with quick clean up before causing more damage or potentially exposing others to the hazard. If items are used for a spill, it is important that the item(s) get put back into the spill kit or are replaced by new items.

<u>Biological Spill Kit</u>	<u>Chemical Spill Kit</u>
Broom and Dustpan	Broom and dustpan
Nitrile or latex gloves	Chemical resistant gloves
Safety glasses	Safety glasses or goggles
Paper towels	Universal spill pads or inert/loose sorbents
Disinfectant (bleach)	Acid neutralizer (sodium bicarbonate)
Disinfectant spray bottle	Base neutralizer (citric acid, tartaric acid or sodium bisulfate)
Tongs	Tongs
Biohazard bags	Sturdy zippered plastic bags or containers with lids
Container for storage of spill kit materials	Hg Absorb for mercury (only needed if used in lab)
	Container for storage of spill kit materials
	HF neutralizer and calcium gluconate gel (only needed if used in the lab)

These items can be found in the MRL storeroom. IF for some reason you cannot find an item for your spill kit, please email [Maisie Kingren](#).