

Laboratory Safety Training: SCS Documentation
Hergenrother Lab – Updated 10/24/17

Name _____ Department/Area _____ Campus Location _____

PRIOR to beginning any laboratory research, you must do each of the following:

- Pass the School of Chemical Sciences Safety Exam after studying the School of Chemical Sciences Chemical Hygiene Plan. A 650/700 is required to pass the exam.
 - The exam can be taken an unlimited number of times. Score: _____/700
- Division of Research Safety (DRS) specific trainings. See attached *Laboratory Safety Training: DRS Documentation* for required trainings and list of other available trainings (DRS Safety Library).
- Complete the *Laboratory Safety Training: New Lab Member Safety Walkthrough Checklist* with lab safety officer (LSO).

FAMILIARIZE yourself with the location and operation of each of the following items (check off each item):

- Nearest Fire Alarm
- Other Emergency Alarms
- Location and types of fire extinguishers
- Personal protective equipment
- Hazards specific to the laboratory (lasers, cryogenics, chemical hazards, etc.)
- Safety Showers/Eyewash Stations
- Spill kits (including chemical spill kits, HF spill kits, Biohazard spill kits, etc.)
- Emergency Exits/Evacuation Plan

My signature indicates that I have located and am familiar with the operation of the items listed above:

Print Name Legibly

Signature

Date

Approval to conduct laboratory research work in the School of Chemical Sciences:

Principal Investigator (PI)

Print Research Group Name

Date

Laboratory Safety Training: DRS Documentation
Hergenrother Lab – Updated 10/24/17

Name _____ Department/Area _____ Campus Location _____

Part A: *The following trainings are required by all personnel before starting work in a lab:*

initial and date when completed:

- | | |
|--|-------|
| <input checked="" type="checkbox"/> Reading the DRS Laboratory Safety Guide | _____ |
| <input checked="" type="checkbox"/> Laboratory Safety Training (DRS online training) | _____ |
| <input checked="" type="checkbox"/> Laboratory Specific Orientation | |
| <input checked="" type="checkbox"/> Location and use of safety equipment
(PPE, safety shower, eye wash, spill kit, fire extinguisher) | _____ |
| <input checked="" type="checkbox"/> Access to safety data sheets and other reference material | _____ |
| <input checked="" type="checkbox"/> Lab specific information and policies | _____ |
-

Part B: DRS Trainings *Based on the hazards in the laboratory, the P.I./lab manager should check what other trainings have to be completed:*

DRS Online Trainings (Completion will be documented in the DRS database)

- | | |
|--|-------|
| <input type="checkbox"/> Analytical X-ray Safety | _____ |
| <input checked="" type="checkbox"/> Chemical Safety: An Introduction | _____ |
| <input type="checkbox"/> Compressed Gases and Cryogenics | _____ |
| <input type="checkbox"/> Hydrofluoric Acid Training | _____ |
| <input type="checkbox"/> Laser Safety | _____ |
| <input checked="" type="checkbox"/> NIH Guidelines Overview | _____ |
| <input type="checkbox"/> Radiation Safety Awareness Training | _____ |
| <input type="checkbox"/> Radioactive Materials Safety | _____ |
| <input type="checkbox"/> Transportation of Infectious Substances, Category B | _____ |
| <input checked="" type="checkbox"/> Understanding Biosafety | _____ |

DRS Live Trainings (Completion will be documented in the DRS database)

- | | |
|--|-------|
| <input type="checkbox"/> Safe Handling of Human Cell Lines/Materials in a Research Lab | _____ |
|--|-------|

DRS Safety Library (Read before performing process and document training with initials and date)

Biological Safety

- | | |
|---|-------|
| <input type="checkbox"/> Biosafety Lab Supplies | _____ |
| <input type="checkbox"/> Biotoxins Management and Handling | _____ |
| <input type="checkbox"/> Protecting Vacuum Lines from Biohazards | _____ |
| <input type="checkbox"/> Storage of Risk Group 2 Biological Materials | _____ |

Chemical Safety

- [Aqua Regia](#) _____
- [Bases-Hydroxides](#) _____
- [Chemical Compatibility](#) _____
- [Chemical Hazard Classification \(GHS\)](#) _____
- [Chemical Storage](#) _____
- [Compressed Gas Cylinder Safety](#) _____
- [Cryogenics and Dry Ice](#) _____
- [Cyanides](#) _____
- [Diazomethane](#) _____
- [Flammable Liquids](#) _____
- [Formaldehyde](#) _____
- [Hydrofluoric Acid \(HF\)](#) _____
- [Labeling Chemicals](#) _____
- [Mercury](#) _____
- [Mineral Acids](#) _____
- [Nanomaterials](#) _____
- [Oxidizers](#) _____
- [Perchloric Acid](#) _____
- [Peroxide-Forming Chemicals](#) _____
- [Piranha Solution](#) _____
- [Potentially Explosive Experiments](#) _____
- [Pyrophoric Materials](#) _____
- [Scale-Up Reaction Safety](#) _____
- [Sodium Azide](#) _____

Safety Equipment

- [Biological Safety Cabinets](#) _____
- [Chemical Fume Hoods](#) _____
- [Personal Protective Equipment](#) _____

Laboratory Equipment

- [Anaerobic Chamber Safety](#) _____
- [Autoclave Safety and Operation](#) _____
- [Electrical Safety in the Laboratory](#) _____
- [Vacuum Safety](#) _____

Laboratory Procedures/Practices

- [Laboratory Housekeeping](#) _____

Part C: Initial Lab Specific Training- *The following are trainings developed in the lab and must be completed before beginning work. (e.g., Standard Operating Procedures, lab policies, other trainings developed by lab)*

Description of Training	Provided By	Date and Initials
Lab Safety Walkthrough with LSO		
Ozonolysis SOP (when applicable)		
Hydrogenation SOP (when applicable)		

Part D: Ongoing Training- *The following is documentation of additional safety trainings that were not available or not required during the initial safety training. (e.g., Safety refreshers, new DRS trainings)*

Description of Training	Provided By	Date and Initial

Laboratory Safety Training: New Lab Member Safety Walkthrough Checklist Hergenrother Lab – Updated 10/24/17

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Laboratory-specific Chemical Hygiene Plan (CHP):

Location: Outer office of RAL 261, Hergenrother Lab Wiki

Contents: DRS Laboratory Safety Guide (also available online), SOPs, safety documentation

Location of MSDSs and SOPs

MSDSs: online from manufacturer's websites

SOPs: See DRS website and safety folder on the group share

Emergency information: Spills, Personal Injury, Fire, and Power Failure.

Fire extinguisher (**P**ull the pin, **A**im at the base, **S**queeze trigger, and **S**weep)

Fire alarms and other alarms

Emergency exits and Building Emergency Action Plan (BEAP)

Safety showers and Eye wash stations

Spill Kits and first aid supplies

Personal Protective Equipment (PPE)

Chemistry: Safety glasses, gloves, and lab coats (blue) are required **at all times**.

Biology: Gloves are required **at all times**. Lab coats (white) are required when working in biosafety cabinets with mammalian cells (RAL 233A) or pathogenic bacteria (RAL 249).

Waste Handling Procedures.

Jerrican pick up program for general halogenated and non-halogenated organic waste.

Each researcher is responsible for submitting individually generated waste (e.g. heavy metal waste, sodium azide waste, etc.), talk to LSO for training.

Each researcher who generates biological waste will be trained and added to the autoclave waste rotation.

Chemical procurement, distribution, and storage.

Lab Specific Safety Rules

Discuss what special hazards/precautions you will need to follow in your research with your research advisor and/or safety officer.

When using a high hazard reagent/process for the first time: **1)** read the associated DRS training material or lab specific SOP, **2)** initial/date in the DRS Training Documentation section, and **3)** ask a senior graduate student or post doc to show and/or shadow you.

Headphones are allowed in lab, but must be able to hear surrounding noise in case of emergencies.

Food consumption is allowed at your desk and in the breakroom. No food consumption allowed in front of bench/hood space or in 233 RAL.

Active chemistry is allowed after hours if someone else is present in lab.