

SCS Laboratory Safety Training Check List

PRIOR to beginning any laboratory research and/or upon assignment to a research group 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

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 Shower
- Eyewash
- Spill kits (including chemical spill kits, HF spill kits, Biohazard spill kits, etc.)
- Emergency Exits
- Completed the "Laboratory Safety Training Checklist – New Orientation Checklist" found in your group's safety manual.

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

Print Name Legibly

Signature

Date

DISCUSS with your research advisor what special hazards/precautions you will need to follow in your research. Please use the *Laboratory Safety Training - Reaction Safety Training Record* found in your Group Safety Manual (or see attached document). Briefly outline these below:

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

Principal Investigator (PI)

Print Research Group Name

Date

PLEASE FILE COMPLETED FORM IN RESEARCH GROUP SAFETY MANUAL WITH YOUR GROUP SAFETY OFFICER OR PI.

Please Mail a copy to SCS SAFETY, Box 21-1 Noyes Lab, MC-712

Laboratory Safety Training – Reaction Safety Training Record

Acknowledgment: Imperial College London, Department of Chemistry

Name:	Research Group :

All experiments must be assessed as being in one of the following four categories:

- A** - This activity **must** be directly supervised.
- B** - The advice and approval of your supervisor must be sought before the task is started.
- C** - The work involves risks requiring careful attention to the safety related aspects of it. The worker has been trained in the task and has demonstrated competence.
- D** - Tasks in this category carry no undue risks.

Category **A** covers use of all compounds which present any of the following hazards:

- Carcinogen
- Mutagen or teratogen
- Risk of serious eye damage
- Pyrophoric
- Very highly toxic
- Explosion risk
- Others:
- Others:
- Others:
- Others
- Others:

This will include some of the specific activities shown on the following page, which must therefore be directly supervised. Your PI has the discretion to amend the category for these activities from **A** to **B** or **C** *once you are sufficiently trained and have demonstrated competence in them*. Where this is the case, your PI must sign and date the appropriate space on the following page. Please place this within your Group Safety Manual.

I have read this form.

Researcher Name: _____

Researcher Signature: _____

Principal Investigator Name: _____

Principal Investigator Signature: _____

Date: _____

Category A Activity	Standard Procedure Reference in Group Safety Manual	Amended Category A, B, C, or D	PI Signature / Date
Organolithiums, organozincs, and other pyrophoric reagents			
Organoaluminiums			
Use of UV light			
Hydrogenation			
Peroxides (including 30% H2O2)			
Liquid ammonia			
Ozone			
Toxic, corrosive or vesicant gases (e.g., HCl, NOCl, COCl2, Cl2, CO, H2S, HCN, NO, F2, butadiene)			
Beryllium			
Inorganic cyanides			
HF			
Alkylating agents (e.g., MeI, R2SO4, CF3OSO2R, HCHO, ethylene oxide, ClCH2OMe etc.)			
Diazomethane			
Highly toxic solvents (e.g., benzene, CCl4, CS2, HMPA, 1,4-dioxane, etc.) and human carcinogens			
Highly toxic volatile metallic substances, (e.g., OsO4, metal carbonyls, etc)			
Potentially hazardous operations: 1. Sealed tube reactions 2. Use of perchlorates, azides, or acetylides 3. Use of K; prep. of Na sand 4. Large scale use of flammable solvents			
Other			

Laboratory Safety Training – New Orientation Checklist

Please use this checklist for additional laboratory-specific training.

Please check where applicable:

- Introduction to laboratory-specific Chemical Hygiene Plan (CHP):
Location and contents
- Review SCS Chemical Tracking Program (CISPro)
- Review location of MSDSs.
- Review emergency information: Spills, Personal Injury, Fire, and Power Failure.
 - Fire extinguisher
 - First aid supplies
 - Safety shower
 - Eye wash
 - Evacuation plans
- Basic Safety Rules
 - Note rules with special importance for your laboratory identified by your PI.
 - Identify specific areas for food consumption outside of the lab.
 - Review procedures for working after hours.
- Review Waste Handling Procedures.
 - Labeling
 - Packaging
 - Pick-ups
- Review procedures for chemical procurement, distribution, and storage.
- Review Standard Operation Procedures (SOP) for use of hazardous materials found in your Group Safety Manual
 - Storage (acid, flammable, refrigerator, etc)
Personal Protective Equipment (PPE)
Location where certain procedure(s) may be performed (e.g., mechanical ventilation required).
 - Waste Disposal (aqueous, solid, biohazardous, and radioactive)

- Review procedures for use of compressed gas cylinders
- Protective Apparel and Equipment (Personal Protective Equipment or PPE)
 - Discuss when safety glasses, goggles, or face shields are required.
 - Discuss any need for other protective equipment.
 - Discuss selection of gloves.
- Housekeeping, Maintenance, and Inspections
 - Discuss materials stored or frequently present on the floor.
 - Discuss maintenance items for scientific equipment.
 - Discuss formal and internal inspection programs.
- Additional Safety Session Topics
 - Review recent incidents/accidents/injuries and how to prevent recurrence.
 - Review new equipment at least annually.
 - Review new procedures at least annually.
 - Review results of recent inspections and how to correct problem areas.
- Review other specific safety requirements identified by the Principal Investigator for your research group. Please list them below.
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I have read new orientation safety checklist

Researcher Name: _____

Researcher Signature: _____

Principal Investigator Name: _____

Principal Investigator Signature: _____

Date: _____