

Standard Operating Procedures

Print out the completed form and keep a readily accessible hard copy in the lab (also keeping an electronic copy is highly recommended).

Date: _____

SOP Title: _____

Supervisor/Principal Investigator/Instructor: _____

Department/Bldg/Room#: _____

Lab Phone Number: _____

Section 1 – Process/Experiment

Describe (briefly) the process/experiment, including its purpose, frequency (e.g. daily, monthly) and anticipated end date of process/experiment. Was a scaled-down experiment considered? Check database for green alternatives: <http://ehs.mit.edu/greenchem/>
If section not applicable, write “N/A”

Section 2 – Hazardous Chemicals

Provide hazardous chemical names and list references used for the safe and effective design of process/experiment (safety literature, peer-reviewed journal articles, MSDS – as attachment). Check Cameo chemicals info at: <http://cameochemicals.noaa.gov/>
Is a less hazardous chemical(s) available for substitution and considered? Check database for green alternatives: <http://ehs.mit.edu/greenchem/>

Section 3 – Potential Hazards

Describe chemical hazards, instruments hazards. List all physical and health hazards associated with the materials and procedures used (e. g. toxicity, reactivity, flammability, corrosivity, pressure, etc.). List environmental hazards.

Section 4 – Approvals Required

Insert all approval(s) required before staff is starting work and working alone requirements.

Section 5 – Designated Area

Describe designated areas of use for hazardous chemicals and for equipment used in the process /experiment (e.g. chemical fume hood B, glove box, whole laboratory, etc.)

Section 6 – Special Handling Procedures and Storage Requirements

List special techniques/procedures required when handling chemicals/equipment. Include temperature controls; chemical incompatibilities; containment devices; access restrictions; ventilation requirements. Describe requirements for proper storage and transport of hazardous chemicals.

Section 7 – Personal Protective Equipment

List PPE required, type (s) of PPE, frequency of change, etc. PPE type should be specified for each phase of the process (if applicable). Check “Quick Selection Guide to Chemical Protective Clothing”, Ed. 2007, Krister Forsberg, S.Z Mansdorf available in each Lab and other on-line resources. Check with EHS to determine if a respirator use might be necessary.

Section 8 – Engineering/Ventilation Controls

List all engineering controls used. List what procedures/steps should be performed in a chemical fume hood, glove box, etc.

Section 9 – Spill and Accident Procedures/Decontamination

Describe procedures in case of a spill/accident, where emergency equipment is located; where spill kit equipment is located; how decontamination should be performed (of equipment, glassware used, clothing, containment equipment, etc.); incident report form availability; who should be notified. Refer to the emergency contact info posted in the lab, etc.

Section 10 – Waste Collection/Disposal

Identify quantities of hazardous waste you anticipate generating; appropriate waste disposal procedures. Include any special handling or storage requirements for your waste. Describe waste collection; labeling; frequency of disposal; responsible person for waste removal and disposal (contact info provided). Was treating or destroying hazardous by-products as the last step in experiments evaluated and practiced? If no hazardous waste, please state such.

Section 11 – Process Steps

Process Steps	Safety Measures (please also include specific laboratory techniques and PPE, safety indicators)

Section 12 – Training

Describe training requirements and where training roster and other related training documentation is located.

SOP Prepared By (Name and Title): _____