

HARVARD UNIVERSITY

Chemical Hygiene Plan



Part III. Laboratory-Specific Safety Practices

Environmental Health & Safety

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PART III
Laboratory-Specific Safety Practices

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APPENDICES

Appendix III-A Specific Safety Procedure (SSP) Template

1.0 INTRODUCTION AND PURPOSE

Part III of the Harvard University Chemical Hygiene Plan (CHP) is intended to address hazards that are specific to a department, laboratory, research group, procedure or hazardous substance. Part III is designed to contain Specific Safety Procedures (SSP) developed by laboratory personnel, with the assistance of EH&S as needed. An SSP must be developed for any operation or hazardous material for which the general safety procedures contained in Part II of the CHP are inadequate to address hazards. These procedures must be written to clearly identify additional or special precautions, controls, personal protective equipment and emergency procedures that are required, as well as the nature of the hazards the procedure is intended to minimize. Each SSP must be reviewed by the Principal Investigator or Chemical Hygiene Officer (CHO) for the area where the procedure will be implemented. The PI or designee shall review all SSPs each year and update them if necessary.

An SSP that addresses the requirements noted above must be documented and maintained in Part III of the CHP. In addition, personnel authorized to perform operations for which an SSP has been established must be trained in the specific procedure. The PI, during the annual review of SSPs, will determine if refresher training is warranted at that time.

An SSP template is provided in Appendix III-A to facilitate SSP development. Instructions regarding use of the SSP Template are contained in the following Section 2.0. Examples of SSPs for commonly used particularly hazardous substances are available at www.uos.harvard.edu/ehs/longwood. EH&S is available to assist laboratory personnel in the development of SSPs.

2.0 SPECIFIC SAFETY PROCEDURE (SSP) TEMPLATE INSTRUCTIONS

2.1 Heading

Complete the blanks shown in this section. The revision date should indicate when the most recent modifications were made to this procedure. The title of the procedure should indicate the specific chemical, task or experiment for which it was written. Note that each procedure, and its subsequent revisions, should be reviewed by the Principal Investigator or Chemical Hygiene Officer.

2.2 Scope and Applicability

Include a general description of what activities are covered under this procedure. List any specific examples of when the procedure must be implemented or any exemptions when the procedure is not required. If authorization for this procedure is limited to designated staff, that fact should be noted in this section.

2.3 Materials and Hazards

Complete the hazard description table for each of the principal materials utilized in this procedure. Material Safety Data Sheets, when available, should be obtained and attached to the procedures template. Many operations can result in secondary materials or hazardous by-products. A discussion of these materials should be included in this section if they represent a significant, but different hazard than the other materials.

The description of equipment and instrumentation should be limited to any items utilized to control or monitor specific hazards associated with the material or the operation.

Conduct a comprehensive Personal Protective Equipment (PPE) evaluation for the referenced materials or operation. The determination should include both the type of equipment, as well as the clothing materials. The results from this evaluation should be identified by completing the PPE and Clothing tables. Questions regarding the selection or procurement process should be directed to the Chemical Hygiene Officer.

2.4 Special Precautions

Indicate and describe any management approvals, medical surveillance, training or specific permits that must be obtained in order to conduct this procedure. Questions regarding applicability of these categories should be directed to the Chemical Hygiene Officer.

2.5 Procedure

Enumerate or list the safety steps to be followed in performing the procedure. The steps should be sufficiently detailed, and should include any prohibited activities or any potentially dangerous conditions.

2.6 Special Emergency Procedures

Generic information related to emergency response activities is already addressed in Part II of the Chemical Hygiene Plan. List any additional emergency equipment, supplies or procedures that are unique to the referenced materials or operations. For example, an antidote such as calcium gluconate should be present whenever work is conducted with hydrofluoric acid.

3.0 SPECIFIC SAFETY PROCEDURES

This section contains procedures developed for specific laboratories, experiments or operations

Chemical Hygiene Plan Part III Laboratory-Specific Safety Procedures
APPENDIX III-A SPECIFIC SAFETY PROCEDURES TEMPLATE

HEADING

Title of Procedure: _____
 Revision Date: _____
 Authors (Names): _____
 Signature: _____
 Signature: _____

SCOPE AND APPLICABILITY

o Department: _____
 o Research Group: _____
 o Lab Bldg., Room(s): _____
 o Operation / Experiment: _____
 o Material(s): _____

MATERIALS AND HAZARDS

Principal Materials Used	Flammable	Corrosive	Sensitizer	Mutagen	Teratogen	Biological Toxin	Acutely Toxic	Pyrophoric	Water-Reactive	Shock-Sensitive	Carcinogen	Unstable	Biotoxin	Other Comments:

MSDS attached: o Yes o No If not, explain: _____

Describe equipment/instrumentation used to monitor/control hazards: _____

- Special PPE Required:**
- o Goggles
 - o Face Shield
 - o Chemical Resistant Apron
 - o Protective Clothing
 - o Gloves
 - o Single
 - o Double
 - o Respirator (If yes, contact EH&S for additional assistance)

Special Protective Clothing Required:

Protective Clothing	Butyl	Nitrile	PVC	Latex	Neoprene	Silvershield	Kevlar	Other:	Additional Specifications
Aprons									
Shoe Cover									
Body Cover									
Head Cover									
Gloves									
Single									
Double – Interior									
Double - Exterior									

NOTE: If special PPE and/or protective clothing is not required, standard PPE and protective clothing required in Part II of the Harvard University CHP must be utilized.

SPECIAL PRECAUTIONS

- o Permits: _____
- o Mgmt. Approval: _____
- o Training: _____
- o Medical Surveillance: _____
- o Other: _____

PROCEDURE

Attach the enumerated or bulleted steps to be followed in performing the procedure. The steps should be detailed and should include prohibited activities and cautionary statements, where applicable.

SPECIAL EMERGENCY PROCEDURES

Fire/Evacuation: _____

Chemical Spill: _____

Medical Emergency: _____

Personal Exposure: _____