Section One:

☐ Material Hazard
☐ Process/Task/Equipment
☐ Instrumentation/Equipment

PURPOSE AND SCOPE SECTION

a. The specific materials, processes, experiments, or instrumentation/equipment involved
b. The laboratory personnel involved and the necessary skill level to perform the SOP
c. The location where the materials and instrumentation/equipment will be used and the location the processes and experiments will be performed

HAZARDS AND CONTROL SECTION

a. The materials, processes and instrumentation/equipment hazards associated with this procedure which may present exposure hazards, health hazards or physical hazards
b. Identify any potential exposures that may be encountered when using the instrumentation/equipment, such as aerosol generation during mixing centrifuging or sonication, when hazardous conditions occur, such as extreme temperatures
c. Any technique hazards such as weighing air reactive solids
d. Any special handling and storage requirements needed to work with the material, process or instrumentation/equipment

ENGINEERING CONTROL SECTION

a. Identifies equipment that shall be used when carrying out the procedure, such as but not limited to chemical fume hoods, biosafety cabinets, and vacuums

PERSONAL PROTECTIVE EQUIPMENT SECTION

a. Types of PPE may be required beyond the minimum based on the hazard assessment. These requirements will be defined in this section
b. Address the specific hygiene practices to be performed with each process, instrumentation/equipment usage, or with hazardous chemicals

PROCEDURE SECTION

a. Materials – an SOP of this type addresses how to work with the specific material, and it identifies:
   i. The hazards associated with this specific material
   ii. How to transfer the material
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iii. Incompatibilities with other materials or agents that should be considered when planning a process or experiment, transferring to a waste container, and compatibility with the specific vessel or spatula

b. Process – an SOP of this type describes in detail the procedure used to perform the process, task or equipment:
   i. The use of pictures is encouraged to enhance the end user’s understanding; highlights all laboratory safety processes in place
   ii. Include any procedure that shall be followed to start or end the process or experiment, including any specific steps that shall be followed once the process is complete

c. Instrumentation/Equipment – an SOP of this type describes the step-by-step description for handling hazardous waste (not intended to take the place of the owner/operator manual):
   i. The use of pictures is encouraged to show operational settings and emergency power down steps

WASTE DISPOSAL SECTION

a. Identify what materials are hazardous, non-hazardous, or biohazardous waste
b. If materials can be combined into a single waste container, the handling procedure for the collection. Storing and disposal will be written out step-by-step
c. If materials cannot be combined into a single waste container. Special handling requirements will be written out step-by-step
d. Type of compatible containers will be identified for each type of waste generated
e. Labeling requirements and segregation prior to disposal

EMERGENCY RESPONSE SECTION

a. Specific steps directly related to the material, process or instrumentation/equipment to take in event of an emergency
b. Labeling requirements and segregation prior to disposal

TRAINING/ RECORD KEEPING & DEFINITIONS

a. Training requirements – what training the laboratory personnel shall have successfully completed prior to having authorization to perform the SOP
b. Definitions of all terms and acronym regulations specifically defined if applicable
c. Determination if the SOP is of such a hazardous nature that the Principal Investigator and/or Laboratory Supervisor will be required to grant, in writing, authorization for the laboratory personnel to perform the SOP

REFERENCES

a. Identify applicable references used to develop the SOP
Appendix B

Approval of an SOP may only occur by a Ferris State University Approver. This individual will sign the SOP and provide the date the document was signed in the Date Approved section.

Approver Signature: ________________________________

Date Approved: ________________________________

Review Date: ________________________________  □ annual review  □ changes made

Changes made on review date: ____________________________________________