Standard Operating Procedure (SOP)

If there is an existing written procedure that incorporates safety information from the sections below, that procedure can be used in lieu of completing this SOP template.

TITLE:	

PURPOSE: *Give the purpose of the procedure being performed (e.g. This process determines acid detergent fiber in animal feeds).*

1. PRINCIPAL INVESTIGATOR (PI) INFORMATION:

Principal Investigator:	**Building:**
PI Signature:	**Lab Room Number:**
Date:	**SOP Revision Date:**

2. EMERGENCY CONTACTS: *Primary contact should be one (preferably the PI) who can be reached in the event of an emergency during and **after** business hours (8:00AM – 5:00PM Monday – Friday).*

Primary Contact:	**Phone #:**
Secondary Contact:	**Phone #:**
Police/Fire/Ambulance: 911*	**Student Health Center: 1- 512-245-2161**
ESHREM: 1- 512-245-3616	**EHSREM (after hours): 1- 512-738-6650**

**When dialing 911 for Police/Fire/Ambulance give the dispatcher the following information:*

- *Calling from Texas State University*
- *Building name*
- *Building street address*
- *Nature of emergency: e.g., fire, injury, chemical spill*

3. Location of Safety Data Sheet (SDSs): *Give location where in the lab SDSs may be found and if SDSs are in an electronic database how they can be accessed by those working in the lab.*

4. HAZARD IDENTIFICATION:

a. Check *ALL* hazards that apply to the chemical(s) used: *Refer to Safety Data Sheets* (SDSs).

☐ Sensitizer	☐ Corrosive	☐ Toxic	☐ Irritant
☐ Reproductive Toxin*	☐ Air Reactive/Pyrophoric*	☐ Water Reactive*	☐ Carcinogen*
☐ Acutely Toxic*	☐ Explosive/Unstable*	☐ Oxidizer	☐ **F**lammable
☐ Target Organ Hazard (specify organ)		☐ Peroxide Former	

*If the chemical(s) you are using falls into a hazard group that is followed by an asterisk (*) that chemical is a **Particularly Hazardous Substance (PHS)** and requires prior approval by the PI and establishing a designated work area with posted signs before being used in the lab.*

b. Location of designated work area within lab:

c. Check *ALL* additional hazards that are present when the procedure is performed.

☐ Fire Hazards	☐ Elevated Temperatures	☐ Heat Gun	☐ Radiation
☐ Cryogen/Low Temp	☐ Pressure or Vacuum	☐ Compressed Gases	☐ Laser or UV Light
☐ Sharps	☐ Moving Parts	☐ Electrical	☐ Biological

Other Hazards (List below):

5. HAZARD CONTROL:

a. Selection and Purchasing: *Give the total quantity to be purchased, physical state, and from who the chemical(s) will be purchased from (e.g., Sigma-Aldrich, Thermo-Fisher Scientific, etc.). When possible purchase small quantities or dilute solutions to reduce risk of exposure and minimize waste. Consider safer container options such as shatterproof glass, septum- top containers, etc.*

b. Engineering Controls: *Check the box for each of the controls to be used.*

☐ Fume Hood ☐ Biosafety Cabinet ☐ Glove Box ☐ Vented Gas Cabinet

☐ Other (List below: include controls such as pressure relief valves, intrinsically safe hot plates, auto shut offs, etc.).

c. Function Check: *Are the engineering controls to be used functioning properly?*

Fume Hood	Biosafety Cabinet	Glove Box	Vented Gas Cabinet
☐ Yes	☐ Yes	☐ Yes	☐ Yes
☐ No	☐ No	☐ No	☐ No
☐ N/A	☐ N/A	☐ N/A	☐ N/A

d. Certification: *Are the engineering controls to be used have a current certification?*

Fume Hood	Biosafety Cabinet	Glove Box	Vented Gas Cabinet
☐ Yes	☐ Yes	☐ Yes	☐ Yes
☐ No	☐ No	☐ No	☐ No
☐ N/A	☐ N/A	☐ N/A	☐ N/A

5. HAZARD CONTROL: (continued)

c. Administrative and Work Practice Controls: *List any specific work practices and training needed to safely perform the procedure (e.g., review Safety Data Sheets before using chemicals, do not work alone, must notify other staff members before using chemical, work away from heat sources, etc.).*

5. HAZARD CONTROL: (continued)

d. Required Personal Protective Equipment (PPE): *Check the boxes below for the PPE to be used. For lab coats, gloves, and respirators list the exact types to be used (e.g. flame-resistant coat, Nitrile gloves, non-venting goggles, etc.).* ***Note: If respirators are to be used contact EHSREM at ehs@txstate.edu prior to purchasing and using.***

☐ Lab Coat (type):		☐ Respirator	☐ Chemical Apron
☐ Gloves (type):		☐ Safety Glasses	☐ Other: List Below
☐ Goggles (type):		☐ Face Shield	

e. Storage and Transportation

Describe how the chemical will be stored away from incompatible materials (i.e., flammables storage cabinet, refrigerator, glovebox, etc.). Describe how the chemical will be transported inside and outside of the laboratory (e.g. on cart in containment tray). ***Note: If the chemical is to be transferred to a secondary container, the container must be labeled with the chemical name and hazard warnings. Contact EHSREM at ehs@txstate.edu for blank labels.***

6. EMERGENCY PROCCEDURES: SPILLS, EXPOSURES, FIRES:

a. Emergency Equipment: *Check the box next to the emergency equipment that is present in the lab and give the location where it may be found.*

- ☐ Fire Extinguisher, Location:
- ☐ Safety Shower, Location:
- ☐ Safety Eyewash, Location:
- ☐ First Aid Kit, Location:
- ☐ Chemical Spill Kit, Location:
- ☐ Emergency Contact List, Location:

b. Spills: *Describe the procedures to be followed in the event of a chemical spill, include any contact information that is not found in* ***Section 3. Emergency Contacts****.*

6. EMERGENCY PROCCEDURES: SPILLS, EXPOSURES, FIRES: (continued)

c. Fire: *Describe the procedures to be followed in the event of a fire, include any contact information that is not found in* ***Section 3. Emergency Contacts****.*

d. Eye Contact: *Describe procedure to be to be followed in the event of an exposire to the eyes, include any contact information that is not found in* ***Section 3. Emergency Contacts****.*

e. Skin Contact: *Describe the procedure to be followed in the event of an exposure to the skin, include any contact information that is not found in* ***Section 3. Emergency Contacts****.*

6. EMERGENCY PROCCEDURES: SPILLS, EXPOSURES, FIRES: (continued)

f. Ingestion: *Describe the procedure to be followed in the event of chemical ingestion, include any contact information that is not found in* ***Section 3. Emergency Contacts****.*

g. Inhalation: *Describe the procedure to be followed in the event of an inhalation exposure, include any contact information that is not found in* ***Section 3. Emergency Contacts****.*

7. PROCEDURE: *Describe each step of how the procedure is performed, be sure to include In the "Hazard and Hazard Controls and PPE" column list the hazard(s) associated with each step and the engineering controls and PPE that must be used. Enter decontamination procedures and how to store and dispose hazardous waste in Section 8, "Waste Disposal and Decontamination Procedure" on page 12.*

STEPS OF PROCEDURE	HAZARD and HAZARD CONTROLS and PPE
1.	
2.	
3.	
4.	
5.	
6.	
7.	
8.	
9.	
10.	

7. PROCEDURE: (continued): *Describe each step of how the procedure is to be performed. In the "Hazard and Hazard Controls and PPE" column list the hazard(s) associated with each step and the engineering controls and PPE that must be used. Enter decontamination procedures and how to store and dispose hazardous waste in Section 8, "Waste Disposal and Decontamination Procedure" on page 12.*

STEPS OF PROCEDURE	HAZARDS and HAZARD CONTROLS and PPE
11.	
12.	
13.	
14.	
15.	
16.	
17.	
18.	
19.	
20.	

7. PROCEDURE (continued): *Describe each step of how the procedure to be performed. In the "Hazard and Hazard Controls and PPE" column list the hazard(s) associated with each step and the engineering controls and PPE that must be used. Enter decontamination procedures and how to store and dispose hazardous waste in Section 8, "Waste Disposal and Decontamination Procedure" on page 12.*

STEPS OF PROCEDURE	HAZARDS and HAZARD CONTROLS and PPE
21.	
22.	
23.	
24.	
25.	
26.	
27.	
28.	
29.	
30.	

8. Waste Disposal and Decontamination Procedure:

Describe how hazardous waste is stored and disposed. Any chemical waste must be disposed of as hazardous waste in accordance with the Texas State Hazardous Waste Management Program. Also, if any of the chemical(s) used are considered a Particularly Hazardous Substance (PHS) describe how work surfaces and other items will be decontaminated after use. If you have specific questions about disposal, please contact EHSREM at ehs@txstate.edu .

9. Documentation of SOP review:

The PI and lab worker must sign to verify that the worker has read and understands this SOP prior to performing work with the chemical listed in this SOP. These signatures will also serve as giving worker prior approval to use a chemical classed as a Particularly Hazardous Substances (PHS).

Worker Name (print)	Worker Signature	PI Signature	Date