

Standard Operating Procedure Template for Hazardous Chemicals

Title of the Project:

Date:

Lab Location:

PI:

Contact Information:

Date of Review:

Emergency Procedures

Describe the procedures in the event of an emergency including a phone number, floor plan, exits, the location of emergency equipment.

Hazardous Materials and Equipment

List the items used (include chemical name, common name, an abbreviation).

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Potential Hazard(s):

Describe the potential hazards associated with the chemicals or the procedure. Examples include:

1. Chemical hazards such as carcinogenic, irritant, corrosive, and acutely toxic.
2. Reproductive hazards such as teratogens or mutagens.
3. Physical hazards such as reactive, unstable, pyrophoric, implosion, and exothermic.
4. Use of compressed gases, cryogenics, sharps, high pressure, etc.

Routes of Exposure

List any potential routes of exposure such as inhalation, injection, skin or eye contact.

Exposure Limit

List the Permissible Exposure Limit (PEL) or Threshold Limit Value (TLV) of the chemical(s) (if applicable and known).

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Quantity and Concentration Hazards

Describe if the quantity or concentration of the chemical(s) used increases the risk of exposure to the chemical (if applicable).

Personal Protective Equipment (PPE)

Refer to the SDS, other resources, or consult EHS.

- What type of Gloves:
- Lab Coats, Suits, or Aprons:
- Safety Glasses, Goggles, or Face shields:
- Respirators:
- Hearing Protection:
- Special Equipment (such as blast shields):
- Other:

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Engineering Controls

As applicable, describe the engineering controls used for the procedures. Examples:

- Use of fume hoods or gloves boxes
- Special Ventilation
- HEAP filtered vacuum lines
- Temperature control
- Bench paper, pads, plastic-backed paper
- Special signage
- Safe sharp devices
- Other safety Devices

Work Practice Controls

As applicable, describe work practice controls used for the procedures. Examples:

- Designated areas for highly toxic chemicals
- The requirement of two people
- Restricting access
- Handwashing
- Housekeeping

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Monitoring

As applicable, describe any monitoring needed for the procedure. Examples:

- Personnel exposure monitoring
- Gas and spill release monitoring

Cleanup and Decontamination Procedures

Describe the process for cleaning the work area during and after the procedure.

Storage Procedures

Describe how and where your safe chemical storage.

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Transportation Procedures

If transporting chemicals on campus, describe the procedure.

Waste Disposal Procedures

Describe your waste disposal procedure. Examples:

- Animals (include bedding, cages, and carcasses):
- Chemicals:
- Radioactive:
- Sharps:

Spill or Releases

Provide specific instructions on what personnel should do in the event of a spill or gas release (including the location of spill kits).

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Fire

Provide specific instructions on what personnel should do in the event of a fire.

Signs and Symptoms of Exposure

Describe the specific signs and symptoms of exposure to the chemical (such as visual cues or odors).

Exposures

Provide specific instructions on what personnel should do in the event of an exposure. If first aid for exposure is available, describe the procedure. If not, describe what steps should personnel take if injured.

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Occupational Health Requirements

Describe any Occupational Health and Safety requirements necessary associated with the procedure. Examples include medical evaluation and respiratory fit testing.

Safety Data Sheets (SDS)

Describe how personnel will access SDS in the lab. Include a copy of the SDS with this SOP.

Training Requirements

Describe what documented training personnel must complete before using chemical or conducting procedure.

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Review of Procedure

Describe the frequency for reviewing the SOP document.

Protocol

Description of how to safely perform the experiment or operation.

Training Acknowledgement:

I have read, asked questions, and understand the hazards and safe working procedures for the activity or materials described herein.

Name: _____

Date: _____