



TEXAS TECH UNIVERSITY

Environmental Health *and* Safety

GUIDANCE FOR WRITING CARCINOGEN, MUTAGEN, AND TERATOGEN PROCEDURES

Written procedures for work with carcinogens, mutagens, and teratogens shall include the following information as a minimum:

1. Chemical of concern.
 - a. What chemical will be used?
 - b. Identify whether it is a carcinogen, a mutagen, or a teratogen.
 - c. Are there other hazards associated with the chemical? i.e., corrosive, reactive, flammable, toxic, irritant.
2. Physical form of chemical.
 - a. Solid, liquid, or gas?
 - b. Will the form change during the process? i.e., solid placed in solution or liquid phasing into a vapor.
3. Quantity on-hand in the laboratory and the amount used in each procedure.
 - a. How much is present and how is it stored?
 - b. How much will be used for each repetition of the process?
4. Laboratory and specific location(s) in the lab where the chemical will be handled or used.
 - a. Where will it be measured, mixed, etc.?
 - b. Where will the process in which it is used take place?
 - c. Are these areas clearly marked?
 - d. Is the laboratory posted?
5. Administrative controls employed to limit exposure.
 - a. Will all lab workers be using/handling it?
 - b. Will all lab workers be present when it is used/handled?
6. Engineering controls employed to limit exposure.
 - a. Will the use/handling be done in a hood?
 - b. Will the process take place in a hood?
7. Personal protective equipment (PPE) employed to limit exposure.
 - a. Will lab workers be wearing gloves, goggles, face shield, etc.?
 - b. Is the PPE on hand appropriate for this chemical?



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8. Laboratory security measures.
 - a. Are non-essential personnel barred from the lab when operations with this chemical take place?
 - b. Is the storage location for the chemical secure?
9. Medical surveillance.
 - a. Does an OSHA substance-specific standard regarding this chemical exist?
 - b. Has EHS performed exposure monitoring that indicates surveillance is necessary?
10. Informed consent.
 - a. Has every worker in the laboratory been made aware of all the hazards associated with this chemical?
 - b. Have all been trained regarding the necessity of the exposure control portions of this procedure and the potential consequences of failure to comply?
 - c. Is the training documented and acknowledged by signatures of the lab workers?

Include any other information or procedures specific to this chemical or laboratory that may have a bearing on the safety and health of lab workers.



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PROCEDURES FOR WORK WITH CARCINOGENS, MUTAGENS, AND TERATOGENS

- It is the responsibility of the lab workers to be aware of hazards associated with any chemical they use. Information is available from Material Safety Data Sheets found in _____.
- All new workers in the laboratory who will work with carcinogens, mutagens, and teratogens will be trained by one of the following people _____.
- For any chemical used in the laboratory, the lab worker is responsible for being aware of known or suspected hazards. For each known carcinogenic, mutagenic, or teratogenic chemical to be used, the lab worker should identify these and other hazards (i.e. corrosive, reactive, flammable, toxic, irritant) based on available MSDS recommendations available in the laboratory.
- The lab worker should be aware of the physical form of the chemical and any potential phase changes during the experiment.
- The lab worker should be aware of the quantity on hand to be used.
- Opened containers of carcinogens, mutagens, and teratogens should be stored in the labeled area under the hood and used in the hood as indicated in the laboratory.
- Sealed containers of carcinogens, mutagens, and teratogens should be stored according to their hazards.
- Usage of these compounds should be limited to lab workers trained in their safe usage.
- Lab workers should wear Personal Protective Equipment (PPE) including, but not limited to gloves, lab coat, hair restraints, goggles, and any other PPE recommended by the MSDS that is deemed appropriate.
- When working with hazardous chemicals, only group members should be in the lab. To prevent unauthorized usage of chemicals, access must be limited. Access to this lab can be acquired through _____.
- If OSHA monitoring is required, it should be performed by EHS.
- Every lab worker is to receive training in the safe handling of hazardous chemicals and is to document this by signing an informed consent document.
- If you have any questions, please ask _____.