

HAZARDOUS SUBSTANCES IN ANIMAL RESEARCH PROJECT-SPECIFIC PROCEDURES

PI: **GENERIC PROTOCOL**

1 of 4

PROT. NO.

HAZARD: **STEROID HORMONES IN ANIMALS**

This generic procedure is applicable to projects involving the administration of **hormones** and **hormone antagonists** (e.g. sex hormones, glucocorticoids and mineralocorticoids) to animals via oral dosing (e.g. gavage), parenteral routes (e.g. injection, implanted pellets, silastic capsules, osmotic pumps) or by skin painting. **This procedure is not applicable to studies involving hormones in feed.** In general, hormones administered in physiologic doses are excreted in minute amounts in urine or feces. Thus, treated animals are not considered to be hazardous. Personnel working to prepare hormone dosage forms need to take precautions to prevent ingestion, inhalation or skin contact with concentrated forms of hormones.

**The following procedures are written primarily for rodents and traditional laboratory animals used in indoor facilities. Where noted, exceptions are allowed for work with farm animals in an agricultural setting. Alternate procedures for farm animals should emphasize personal safety and avoiding environmental contamination when working with hormone preparations. Dosage preparation for farm animals should be done in a properly equipped laboratory.

- **REQUIREMENTS FOR PERSONNEL TO WORK WITH THE CONCENTRATED (NEAT) COMPOUND, FOR PREPARATION OF DOSAGE FORM (NORMALLY PERFORMED OUTSIDE ANIMAL FACILITY)**

- ✓ Right-to-Know Training/Chemical Hygiene Training
- ✓ Lab coat
- ✓ Gloves: Latex or other material if latex is not suitable for the vehicle compound. Latex may be allergenic. Nitrile gloves may be used as an alternative to latex.
- ✓ Eye Protection: Safety glasses with side shields or safety goggles
- ✓ A dust mask (e.g. 3M 8500 "Comfort Mask) or respirator (e.g. 3M 9970 Disposable HEPA Respirator or 3M 9913 Dust/Mist Respirator) is recommended when working with powders outside of a glove box or fume hood. Consult REHS regarding the use of any respiratory protection other than a dust mask.
- ✓ Dosage preparation should not be done in animal rooms or in multi-user procedure rooms in the animal facility. This work should be done in a lab outside the animal facility.
- ✓ Perform work in a fume hood, glove box or enclosed balance
- ✓ Perform work over absorbent disposable lab paper
- ✓ Unused hazardous material should be collected for appropriate disposal by REHS.

- **REQUIREMENTS FOR PERSONNEL TO WORK WITH THE COMPOUND, FOR DOSING ANIMALS**

- ✓ Notify Laboratory Animal Services (LAS) each time a project is to start so that appropriate procedures can be planned. Information to provide includes Protocol number, species, hazard, start date and end date.
- ✓ Any hazardous substance container brought into an animal facility should be clearly labeled with the name and CAS#. There are no exceptions to this rule, even if you have a "research lab" waiver for your lab under the "Right to Know" law.
- ✓ For animals treated with hazards, label all animal cages/pens with the chemical name, CAS#, and date of treatment.

REHS APPROVAL: Approved by REHS, Signature on file

DATE: April 24, 2001

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- ✓ During the actual dosing of animals with hazardous substances, the room/area should be secured and only essential personnel should be present.
- ✓ When dosing animals in animal facilities, work areas should be cleaned up and decontaminated if necessary immediately after animal dosing is completed.
- ✓ Hazardous substances should only be kept in the animal facility as long as necessary to dose animals. After each use, hazards should be removed immediately and returned to the PI's lab.
- ✓ All work with hazardous substances to be restricted to the PI's lab or to animal facility rooms approved by the facility manager.
- ✓ Right-to-Know Training/Chemical Hygiene Training
- ✓ Lab coat (**or appropriate work clothing when working with farm animals in barns)
- ✓ Gloves: Latex or other material if latex is not suitable for the vehicle compound. Latex may be allergenic. Nitrile gloves may be used as an alternative to latex.
- ✓ Eye Protection. Safety glasses with side shields or safety goggles. Luer lock syringes are strongly recommended to prevent "needle blow-off" especially when using oily vehicles.
- ✓ Perform work in a fume hood **
- ✓ Perform work over absorbent disposable lab paper **
- ✓ Period following treatment that cages, bedding and animals to be considered hazardous:
Animal cages and bedding are not considered hazardous after dosing. Hormones should be metabolized and only minute amounts of active hormone should be excreted.

• REQUIREMENTS FOR PERSONNEL TO HANDLE TREATED ANIMALS (CHANGE CAGES, DUMP BEDDING, ETC.)

- ✓ Period following treatment that cages, bedding and animals to be considered hazardous:
Animal cages and bedding are not considered hazardous after dosing. Hormones should be metabolized and only minute amounts of active hormone should be excreted.
- ✓ Occupational health program participation
- ✓ Lab coat **
- ✓ Gloves: Latex or other material if latex is not suitable for the vehicle compound. Latex may be allergenic. Nitrile gloves may be used as an alternative to latex.

• REQUIREMENTS FOR PERSONNEL TO ENTER ROOM (VETERINARIAN, ACFC COMMITTEE MEMBERS, OFFICIAL GUESTS, ETC.)

- ✓ Lab coat **

• PROCEDURES FOR DISPOSAL OF TREATED ANIMALS

- ✓ Standard (Incineration by LAS vendor) **Carcasses of animals which have received hormones orally, by implant or by injection may be discarded in regular carcass freezers, unless otherwise specified in the animal use protocol.**
 - ✓ Agricultural animals to be sent to auction and/or for slaughter must undergo a withdrawal period as approved in the animal use protocol.
- (Note: The LAS vendor will not accept carcasses of animals treated with hazardous substances (formalin is acceptable). If the hazardous substance is eliminated (excreted or metabolized), the LAS vendor will take the carcasses.)

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• **ATTACHMENTS**

1. Cover Letter (revised August 22, 2000)
2. General requirements when using hazardous substances in animals (revised August 22, 2000)
3. Spill Clean-up Procedure: Hormone Spill Clean Up Procedure
4. MSDS: for each hormone (On file with LAS)

HAZARDOUS SUBSTANCES IN ANIMAL RESEARCH HORMONE SPILL CLEAN-UP PROCEDURE

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FORM INSTRUCTIONS: Provide the information requested. Spill procedures are found on **Material Safety Data Sheets**. Use this information, but modify it as appropriate for the volume and form of the hazardous substance you will be using. Submit this page with the **Hazardous Substance Questionnaire**. A copy of this form, as approved, must be posted in the room when the hazardous substance is in use. Complete a separate form for each hazardous substance.

INVESTIGATOR:

PROTOCOL NO.:

HAZARDOUS SUBSTANCE:

CAS#:

SPILL CLEAN-UP INSTRUCTIONS:

- Hormones to be used for animal studies should be used in small quantities. Work with neat (pure, concentrated) hormone formulations should be restricted to a laboratory outside the animal facility. Only dosage preparations (e.g. pre-filled syringes) should be brought into the animal facility.
- Wearing gloves, absorb liquid spills with paper towels.
- Wearing gloves, contain powders with moistened towels.
- Wearing gloves, decontaminate with detergent and water.
- Wearing gloves, discard all contaminated material as hazardous material.

SPILL CLEAN-UP SUPPLIES AND EQUIPMENT (LIST):

- Paper towels
- Detergent
- Latex or nitrile gloves
- Labcoat
- Eye protection

LOCATION OF SPILL CLEAN-UP SUPPLIES AND EQUIPMENT:

(When your lab is in the same building as the animal facility, it may be sufficient to store these supplies in your lab. If the animal room is not in the same building as your lab, special supplies (i.e. other than paper towels and water) should be available in the animal facility when working with hazardous substances. In either case, it is essential that the individual working with the hazardous substance in the animal facility know where the supplies are kept and have access to them.)

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