

12.0 HAZARDOUS MATERIALS INFORMATION

Complete this form if you will be using hazardous materials and reagents in your AUP.
Contact Environmental Health and Safety (951-786-2648) for assistance in completing sections 2.0 and 12.0.

If this AUP indicates the use of biohazards or wild caught animals, this AUP will be reviewed by the Institutional Biosafety Committee and must be approved by the IBC prior to IACUC approval of this AUP.

If this form indicates the use of radiation or chemical hazards, this form will be reviewed by EH&S for appropriate safety precautions.

PROTOCOL # _____
EXPIRES: _____

____ Reviewed by Biological
Safety Officer

____ Reviewed by Radiation
Safety Officer

____ Reviewed by Environmental
Health & Safety

Identity of Hazard:

Isoflurane	
Last Name:	Department:
First Name:	Phone:
Email:	Fax:
Laboratory Building:	Room(s):
Vivarium:	Room(s):

Provide a short description of the reagent(s):

Isoflurane is a halogenated gas that is clear, colorless, and highly volatile at normal temperature and pressure. Isoflurane is administered in conjunction with air or oxygen, typically to maintain a state of general anesthesia in animals. For rodents, 1-3% is used for maintenance and up to 5% for induction of anesthesia.

This material/ reagent is hazardous for:

Humans only	
Animals only	
Humans and Animals	X
For which Animal Species?	

The reagent can be spread by:

Blood	
Feces/urine	
Saliva/nasal droplets	
Does not leave animal	
Other:	

Describe any human health risk associated with this agent:

Waste anesthetic gases possess very poor warning properties so odor is not an adequate indication of overexposure. Long-term exposure to waste anesthetic gases has been linked to various health hazards such as genetic mutations, cancers, spontaneous abortions, hepatic and renal disease and psychomotor changes in humans.

Isoflurane is an eye and skin irritant and central nervous system toxicant. Long-term exposure may cause chronic or adverse health effects including nausea, dizziness, fatigue, headache, irritability, reduced mental performance, liver and kidney disease, and possible reproductive effects (sterility, infertility, miscarriages, and birth defects). Inhalation of isoflurane at high concentration levels (at or above 3%, v/v in air) may lead to death.

The precautions checked below apply to this experiment:

The researcher or his/her technicians are responsible for the feeding and care of these animals.	
The following items must be assumed to be contaminated with hazardous material and must be handled only by the researcher or his/her technicians.	
Cage	
Stall	
Water Bottle	
Animal Carcasses	
Bedding	
Other:	
Cages must be autoclaved before cleaning.	
Label cages and remove label after decontamination.	
Animal carcasses must be labeled and disposed of as follows:	
Incineration	
Bag and Autoclave	
Biohazardous Waste Container	
EH&S will pick-up (x5528)	
All contaminated waste (soiled bedding or other animal waste) must be properly labeled and disposed of as follows	
Incineration	
Bag and Autoclave	
Biohazardous Waste Container	
EH&S will pick-up (x5528)	

Personal Protective Equipment Required:

The following personal protective equipment must be worn/used in the room or when handling animals:	
Lab Coat/Coveralls	X
Shoe Covers/Booties	
Disposable or Utility Gloves	X
Head Cover	
NIOSH Certified Dust Mask	
Disinfectant footbath	
Eye/Face Protection	
NIOSH Certified Fitted Respirator	Type:
Other:	Describe:
Personal protective equipment must be removed before leaving the room.	
Personal protective equipment must be discarded or decontaminated at the end of the project	
Hands, arms, and face must be thoroughly washed upon leaving the room	
Full shower, including washing of hair, must be taken upon leaving the room.	
Decontaminate Room (Inform ARS area supervisor when cage and/or room can be returned to general use).	

Provide any other information needed to safely work in this designated areas of research.

Isoflurane should be used either under a fume hood or with a scavenging device. Active scavenging is preferable to passive scavenging. Contact EH&S (ehslaboratory@ucr.edu) for isoflurane monitoring. Respirators must be requested through EH&S, surgical masks do not protect users from isoflurane vapors.

Anesthesia machines and scavenging devices must be maintained in good working condition. Adsorption devices such as charcoal canisters must be properly placed so that vent holes on the bottom of the canister are not obstructed.

