

PROTOCOL FOR ANIMAL USE AND CARE*Handwritten forms are not accepted***CRPRC**

EH&S USE ONLY

PROTOCOL # 9869**EXPIRES:** _____

Investigator		Contact	
Last Name:		Last Name:	
First:		First:	
Middle:		Middle:	
email:		email:	
Department:		Department:	
Phone / Fax:		Phone:	
After hrs. #:		After hrs. #:	

Species (common names):	Number:	Source:
rhesus	24	CRPRC

Project Title	Effect of Beta-Cyclodextrin Mucosal Microbicide on SIV Transmission		
Overnight housing location::	CRPRC	Day use only :	
Animals will be maintained by:	<input checked="" type="checkbox"/> Vivarium <input type="checkbox"/> Investigator <i>(If investigator maintained, attach husbandry SOP's.)</i>		

Procedures: Provide a one or two sentence layman's description of the procedures employed on the animals in this project. This information will help the animal care staff understand any conditions they may encounter while caring for your animals.

Animals will be treated with gel-based beta-cyclodextrin intravaginally (currently used as an anti-fungal agent humans, has been shown to inactivate HIV in-vitro) and challenged with SIV to determine the protective effect of beta-cyclodextrin in gel formulation on vaginal transmission.
--

Special Husbandry Requirements: Describe any special requirements your animals have with respect to **food, water, temperature, humidity, light cycles, caging type, bedding**, or any other conditions of husbandry.

--

Other instructions for animal care staff: (check applicable entries)

Sick Animals	Dead Animals	Pest Control
<input type="checkbox"/> Call Investigator	<input checked="" type="checkbox"/> Call Investigator	<input type="checkbox"/> Call Investigator
<input checked="" type="checkbox"/> Clinician to treat	<input type="checkbox"/> Save for Investigator	<input checked="" type="checkbox"/> OK to use pesticides
<input type="checkbox"/> Terminate	<input type="checkbox"/> Bag for disposal	<input type="checkbox"/> No Pesticides in animal area
<input type="checkbox"/> Necropsy	<input checked="" type="checkbox"/> Necropsy	

Hazardous Materials *(only if in the animal room):*

Infectious Agents?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Agent(s):	SIV, SHIV
Radioisotopes?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Agent(s):	
Chemical Carcinogens?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Agent(s):	
Toxic Chemicals?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Agent(s):	

Funding source:	NIH, NIAID	Previously approved?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Is the project already funded?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Previous protocol number (if any):	

What Veterinarian or veterinary clinic will provide care for your animals? (check one)

<input type="checkbox"/>	Lab Animal Health Clinic (2-0514)	<input checked="" type="checkbox"/>	California Primate Research Center (2-0447)
<input type="checkbox"/>	VMTH Large Animal Field Service (2-0292)	<input type="checkbox"/>	Another Veterinarian

If you checked "Another Veterinarian", please provide:

Veterinarian:		Address:	
Day phone:			
Emergency phone:		Email:	

If your veterinarian is not affiliated with one of the three service units listed above, please contact the campus veterinarian, 2-2357 (email pctillman@ucdavis.edu) for current information about training and record keeping requirements.

Summary of Procedures:

a) Briefly describe the **overall intent** of the study. Include in your description a statement of your hypothesis, the objectives and significance of the study. Your target audience is a faculty member from a discipline unrelated to yours. Do not use jargon.

Beta cyclodextrin is currently used orally, topically, and intravenously in humans as an anti-fungal agent. Beta-cyclodextrin has been shown to inactivate HIV in-vitro (, 2000, et al, 2001) and has inhibited mucosal HIV infection in the mouse model (paper under review). This compound is particularly attractive because it is already FDA approved for use in humans. We hypothesize that this treatment will inactivate SIV, and repeated mucosal exposure of SIV in context of beta-cyclodextrin will result in mucosal and/or systemic immune responses against SIV. To test the relative protective effect, animals will first be challenged with an attenuated virus. If they are resistant to infection, they will be challenged with pathogenic virus.

b) Procedures employed in this project:

Please check the appropriate boxes if any of these procedures will be employed in your project:

- | | | |
|---|---|---|
| <input type="checkbox"/> Monoclonal Antibody Production ** | <input type="checkbox"/> Food or water restriction | <input type="checkbox"/> Special diets; food or water treatment. |
| <input type="checkbox"/> Polyclonal Antibody Production ** | <input type="checkbox"/> Non-recovery surgical procedures | <input checked="" type="checkbox"/> Induced illness, intoxication, or disease |
| <input type="checkbox"/> LD 50 or ID50 studies. | <input type="checkbox"/> Survival surgical procedures | <input type="checkbox"/> Death as an endpoint (see i below) |
| <input checked="" type="checkbox"/> catheters, blood collection, intubation | <input type="checkbox"/> Multiple survival surgery | <input type="checkbox"/> Trapping, banding or marking wild animals |
| <input type="checkbox"/> Prolonged restraint. (8 hrs+) | <input type="checkbox"/> Behavioral modification. | <input type="checkbox"/> |
| <input checked="" type="checkbox"/> Fasting prior to a procedure. | <input type="checkbox"/> Aversive conditioning. | <input type="checkbox"/> |

**** If this protocol only describes antibody production, you may use the attached antibody production page in lieu of completing section c below.**

c) Describe the use of animals in your project in detail, with special reference to any of procedures checked above. Include any physical, chemical or biological agents that may be administered. List each study group, and describe all the specific procedures that will be performed on each animal in each study group. Use terminology that will be understood by individuals outside your field of expertise. (Note: This cell will expand to whatever length you require. You may make this section as long as you wish, but try to be concise. Some projects may require one or two pages.)

All animals used in this project will be multi-parous rhesus macaques with normal menstrual cycles. For all animals on this project, an accurate record of menstrual bleeding will be maintained. Animals in all groups will be fasted and anesthetized prior to all procedures.

Group A- Aldrithiol as a mucosal microbicide will prevent SIV transmission and generate an anti-viral immune response.

Animals will be anesthetized (6-8 mg/kg telazol intramuscularly) and treated with 1 ml of **20% beta-cyclodextrin** (shown to be non-toxic to cells in vitro) in KY "Long Lasting Vaginal Moisturizer" (currently used as a vaginal lubricant in humans) intravaginally. After five minutes, 10^5 TCID₅₀ of **SHIV 89.6** in a 1ml dose will be inoculated intravaginally. The same procedure will be repeated 4-6 hours later. Beta-cyclodextrin treatment followed by SHIV inoculation will be done on weeks 0, 1, 4, 8, 12, 16, 20 and 24. Blood samples, (not to exceed 12 ml/kg/month) will be obtained weekly beginning the week before the first inoculation (day0). At the time of blood collection (prior to treatment or virus inoculation) vaginal secretions will be obtained by lavage with PBS and a cytobrush will be used to atraumatically sample cells in the cervix of the animals. Once a month, lymph node biopsies (peripheral lymph nodes: axillary or inguinal, approx. 1 gram of tissue per biopsy) will be obtained. At week 24, a cervicovaginal biopsy will be performed by inserting a lubricated speculum into the vagina, visualizing the tissue to be removed (1 gram of tissue, maximum), and using a biopsy tool which is used in human gynecology to obtain a tissue sample. We have performed over 25 cervical biopsies in rhesus macaques using this method without any untoward result. If the animals become infected, they will remain on the same sampling schedule until six months after the first inoculation with SHIV 89.6. After six months, the animals will be necropsied.

If after 24 weeks, the animals are not infected with SHIV 89.6 (which is an attenuated virus) they will be anesthetized and treated with 1 ml of **20 % beta-cyclodextrin** (shown to be non-toxic to cells in vitro) in KY "Long Lasting Vaginal Moisturizer" (a vaginal lubricant currently used in humans) intravaginally. After five minutes, 10^5 TCID₅₀ of **SIVmac251** in a 1ml dose will be inoculated intravaginally. This same procedure will be repeated 4-6 hours later. Beta-cyclodextrin treatment followed by SIV inoculation will be done on weeks 0, 1, 4, 8, 12, 16, 20 and 24. Blood samples, (not to exceed 12 ml/kg/month) will be obtained weekly beginning the week before the first inoculation (day0). At the time of blood collection (prior to treatment or virus inoculation) vaginal secretions will be obtained by lavage with PBS and a cytobrush will be used to atraumatically sample cells in the cervix of the animals. Once a month (on the same schedule as before), lymph node biopsies (peripheral lymph nodes: axillary or inguinal, approx. 1 gram of tissue per biopsy) will be obtained. At week 24, a cervicovaginal biopsy will be performed by inserting a lubricated speculum into the vagina, visualizing the tissue to be removed (1 gram of tissue, maximum), and using a biopsy tool which is used in human gynecology to obtain a tissue sample. We have performed over 25 cervical biopsies in rhesus macaques using this method without any untoward result. After week 24, the animals will remain on the same sampling schedule until six months after the first inoculation with SIVmac251. After six months, the animals will be necropsied.

Group B- Aldrithiol as a mucosal microbicide will prevent SIV transmission and generate an anti-viral immune response.

Animals will be anesthetized (6-8 mg/kg telazol intramuscularly) and treated with 1 ml of **10% beta-cyclodextrin** (shown to be non-toxic to cells in vitro) in KY "Long-Lasting Vaginal Moisturizer" (vaginal lubricant currently used in humans) intravaginally. After five minutes, 10^5 TCID₅₀ of **SHIV 89.6** in a 1ml dose will be inoculated intravaginally. This same procedure will be repeated 4-6 hours later. Beta-cyclodextrin treatment followed by SHIV inoculation will be done on weeks 0, 1, 4, 8, 12, 16, 20 and 24. Blood samples, (not to exceed 12 ml/kg/month) will be obtained weekly beginning the week before the first inoculation (day0). At the time of blood collection (prior to treatment or virus inoculation) vaginal secretions will be obtained by lavage with PBS and a cytobrush will be used to atraumatically sample cells in the cervix of the animals. Once a month (beginning the day of the first inoculation), lymph node biopsies (peripheral lymph nodes: axillary or inguinal, approx. 1 gram of tissue per biopsy) will be obtained. At week 24, a cervicovaginal biopsy will be performed by inserting a lubricated speculum into the vagina, visualizing the tissue to be removed (1 gram of tissue, maximum), and using a biopsy tool which is used in human gynecology to obtain a tissue sample. We have performed over 25 cervical biopsies in rhesus macaques using this method without any untoward result. If the animals become infected, they will remain on the same sampling schedule until six months after the first inoculation with SHIV 89.6. After six months, the animals will be necropsied.

If after 24 weeks, the animals are not infected with SHIV 89.6 (which is an attenuated virus) they will be anesthetized and treated with 1 ml of ******/ml beta-cyclodextrin (shown to be non-toxic to cells in vitro) in KY "Long Lasting Vaginal Moisturizer" (vaginal lubricant currently used in humans) intravaginally. After five minutes, 10^5 TCID₅₀ of **SIVmac251** in a 1ml dose will be inoculated intravaginally. This same procedure will be repeated 4-6 hours later. Beta-cyclodextrin treatment followed by SIV inoculation will be done on weeks 0, 1, 4, 8, 12, 16, 20 and 24. Blood samples, (not to exceed 12 ml/kg/month) will be obtained weekly beginning the week before the first inoculation (day0). At the time of blood collection (prior to treatment or virus inoculation) vaginal secretions will be obtained by lavage with PBS and a cytobrush will be used to atraumatically sample cells in the cervix of the animals. Once a month (continuing on the same schedule as before), lymph node biopsies (peripheral lymph nodes: axillary or inguinal, approx. 1 gram of tissue per biopsy) will be obtained. At week 24, a cervicovaginal biopsy will be performed by inserting a lubricated speculum into the vagina, visualizing the tissue to be removed (1 gram of tissue, maximum), and using a biopsy tool which is used in human gynecology to obtain a tissue sample. We have performed over 25 cervical biopsies in rhesus macaques using this method without any untoward result. After week 24, the animals will remain on the same sampling schedule until six months after the first inoculation with SIVmac251. After six months, the animals will be necropsied.

Group C- Vehicle control for SHIV 89.6 vaginal transmission.

Animals will be anesthetized and treated with 1 ml of KY "Long Lasting Vaginal Moisturizer" (vaginal lubricant currently used in humans) intravaginally. After five minutes, 10^5 TCID₅₀ of **SHIV 89.6** in a 1ml dose will be inoculated intravaginally. This same procedure will be repeated 4-6 hours later. KY "Long Lasting Vaginal Moisturizer" treatment followed by SHIV inoculation will be done on weeks 0, 1, 4, 8, 12, 16, 20 and 24. Blood samples, (not to exceed 12 ml/kg/month) will be obtained weekly beginning the week before the first inoculation (day0). At the time of blood collection (prior to treatment or virus inoculation) vaginal secretions will be obtained by lavage with PBS and a cytobrush will be used to atraumatically sample cells in the cervix of the animals. Once a month (beginning the day of the first inoculation), lymph node biopsies (peripheral lymph nodes: axillary or inguinal, approx. 1 gram of tissue per biopsy) will be obtained. At week 24, a cervicovaginal biopsy will be

performed by inserting a lubricated speculum into the vagina, visualizing the tissue to be removed (1 gram of tissue, maximum), and using a biopsy tool which is used in human gynecology to obtain a tissue sample. We have performed over 25 cervical biopsies in rhesus macaques using this method without any untoward result. After week 24, the animals will remain on the same sampling schedule until six months after the first inoculation with SHIV 89.6. After six months, the animals will be necropsied.

Group D- - Vehicle control for SIVmac251 vaginal transmission.

Animals will be anesthetized and treated with 1 ml of KY "Long Lasting Vaginal Moisturizer" (vaginal lubricant currently used in humans) intravaginally. After five minutes, 10^5 TCID₅₀ of SIVmac251 in a 1ml dose will be inoculated intravaginally. This same procedure will be repeated 4-6 hours later. KY-"Long Lasting Vaginal Moisturizer" treatment followed by SIVmac251 inoculation will be done on weeks 0, 1, 4, 8, 12, 16, 20 and 24. Blood samples, (not to exceed 12 ml/kg/month) will be obtained weekly beginning the week before the first inoculation (day0). At the time of blood collection (prior to treatment or virus inoculation) vaginal secretions will be obtained by lavage with PBS and a cytobrush will be used to atraumatically sample cells in the cervix of the animals. Once a month (beginning on the day of the first inoculation), lymph node biopsies (peripheral lymph nodes: axillary or inguinal, approx. 1 gram of tissue per biopsy) will be obtained. At week 24, a cervicovaginal biopsy will be performed by inserting a lubricated speculum into the vagina, visualizing the tissue to be removed (1 gram of tissue, maximum), and using a biopsy tool which is used in human gynecology to obtain a tissue sample. We have performed over 25 cervical biopsies in rhesus macaques using this method without any untoward result. After week 24, the animals will remain on the same sampling schedule until six months after the first inoculation with SIVmac251. After six months, the animals will be necropsied.

d) **Study Groups and Numbers:** Define, in the form of a table, the numbers of animals to be used in each experimental group described above. The table may be presented on a separate page as an attachment to this protocol if you prefer. The Normal format should be three columns: Study Group, Procedure, Number of animals. The number of rows should follow from the number of study groups; **you may add as many rows as you require.** The chart must fully account for the number of animals you intend to use under this protocol. Assign each group to an invasiveness category according to the chart below.

Group	Procedures / Drugs	Number of Animals	Category
A	20% beta-cyclodextrin treatment/SHIV 89.6/SIVmac251	6	3
B	10% beta-cyclodextrin treatment/SHIV 89.6/SIVmac251	6	3
C	KY-"Long Lasting Vaginal Moisturizer" /SHIV89.6	6	3
D	KY-"Long Lasting Vaginal Moisturizer" /SIVmac251	6	3

Categories of invasiveness

Category	Description
1	Little or no discomfort or stress Examples: domestic flocks or herds being maintained in simulated or actual commercial production management systems; the short-term and skillful restraint of animals for purposes of observation or physical examination; blood sampling; injection of material in amounts that will not cause adverse reactions by the following routes: intravenous, subcutaneous, intramuscular, intraperitoneal, or oral.
2	Minor stress or pain of short duration Examples: cannulation or catheterization of blood vessels or body cavities under anesthesia; minor surgical procedures under anesthesia, such as biopsies or laparoscopy; short periods of restraint beyond that required for simple observation or examination, but consistent with minimal distress
3	Moderate to severe distress Examples: major surgical procedures conducted under general anesthesia, with subsequent recovery; prolonged (several hours or more) periods of physical restraint; induction of behavioral stresses such as maternal deprivation
4	Severe pain near, at or above the pain tolerance threshold Examples: exposure to noxious stimuli or agents whose effects are unknown; exposure to drugs, chemicals, or infectious agents at levels that markedly impair physiological systems and which cause death, severe pain, or extreme distress; Surgical experiments which have a high degree of invasiveness.

Further descriptions of these categories are included in the instructions following this document.

e) **Rationale for species and numbers:** How did you determine that 1) the species choice was appropriate and 2) the number of animals in each study groups was the minimum number necessary to achieve sound scientific results?

Rhesus macaques are the only animal model in which reliable data regarding vaccine efficacy for protection from vaginal SIV challenge can be obtained. We have settled on group sizes of 6 for all studies. Based on a student T test, these are the smallest groups that can be used to detect a significant difference in the outcome of the beta-cyclodextrin treated groups versus vehicle control (KY Moisturizer) groups.

f) **Surgery:** If the project involves survival surgery, where will the surgery be conducted?

Building:

Room:

Who will be the surgeon?

g) **Anesthetics, Analgesics, Tranquilizers, Neuromuscular blocking agents:**

Post procedural analgesics should be given whenever there is possibility of pain or discomfort that is more than slight or momentary. If postoperative analgesics are not to be given, justify the practice under part (i) below.

Provide the following information about any of these drugs that you intend to use in this project.

Species	Drug	Dose (mg/kg)	Route	When and how often will it be given?
Rhesus	Telazol	6-8 mg/kg	IM	Before all procedures
rhesus	oxymorphone	1 mg/kg	IM	As needed in the judgement of CRPRC vets

h) **Neuromuscular blocking agents** can conceal inadequate anesthesia and therefore require special justification. If you are using a neuromuscular blocking agent, please complete the following:

Why do you need to use a neuromuscular blocking agent?

N/A

What physiologic parameters are monitored during the procedure to assess adequacy of anesthesia?

Under what circumstances will incremental doses of anesthetics-analgesics be administered?

i) Adverse effects:

Describe any potential adverse effects of the experiment on the animals (such as pain, discomfort; reduced growth, fever, anemia, neurological deficits; behavioral abnormalities or other clinical symptoms of acute or chronic distress or nutritional deficiency)

Any injection or venipuncture has the potential to cause minor pain or discomfort, but the animals are immobilized for the procedure and should not experience pain. Additionally, biopsies can result in some post-procedure pain.

SIV and SHIV infection of rhesus macaques can result in a fatal immunodeficiency and wasting syndrome. The animals will be euthanized when they experience 3 of the following: weight loss >15% in 2 weeks or >30% in 3 months; persistent hypothermia <96F even with heat supplementation; leukopenia (total WBC <3,000); lymphopenia (lymphocytes <800); anemia (hemoglobin <10); dehydration >10%; nonresponsive to therapy for opportunistic infections; persistent anorexia (> 3 days); animal significantly obtunded. These criteria are based on CRPRC guidelines.

How will the signs listed above be ameliorated or alleviated? If signs are not to be alleviated or ameliorated by means of post-operative analgesics or other means, explain why this is necessary.

All possible efforts will be made to minimize animal pain and discomfort. Analgesics have no effect on the proposed studies and they will be administered at the discretion of the CRPRC veterinary staff. The SIV-infected animals will be euthanized prior to or at the time they develop clinical signs of AIDS. The decision to euthanize will be based on the judgment of the CRPRC veterinarians.

Note: if any unanticipated adverse effects not described above do occur during the course of the study, a complete description of those effects and the steps taken to mitigate them must be submitted to the committee as an amendment to this protocol.

Is death an endpoint in your experimental procedure? Yes No

(Note: "Death as an endpoint" refers to acute toxicity testing, assessment of virulence of pathogens, neutralization tests for toxins, and other studies in which animals are not euthanized, but die as a direct result of the experimental manipulation). If death is an endpoint, explain why it is not possible to euthanize the animals at an earlier point in the study. If you can euthanize the animals at an earlier point, describe the clinical signs which will dictate that an animal will be euthanized.

j) Literature search for alternatives and unnecessary duplication:

This section is specifically required by Federal law. You are required to conduct a literature search to determine that either 1) there are no alternative methodologies by which to conduct this study, or 2) there are alternative methodologies, but these are not appropriate for your particular study. "Alternative methodologies" refers to reduction, replacement, and refinement (the three R's) of animal use, not just animal replacement. You must also show that the study is not unnecessarily duplicative of other studies.

What was the date on which you conducted this search?

11/05/01

List the databases searched or other sources consulted (there should be more than one). Include the years covered by the search.

Database Name	Years Covered	Keywords / Search Strategy
PubMed	unlimited	Beta-cyclodextrin, SIV, Vaginal

		transmission
Current Contents	unlimited	Beta-cyclodextrin, SIV, Vaginal transmission

What were your findings with respect to alternative methodologies?

Other microbicides have been studied in prevention of HIV/SIV transmission with limited success. Beta-cyclodextrin has not been tested as a mucosal microbicide to date in the primate model, but is an attractive candidate for testing in the primate model because it inactivates HIV in-vitro and is approved by the FDA for use in humans.

Has this study been previously conducted?

Yes No

If the study has been conducted previously, explain why it is scientifically necessary to replicate the experiment.

k) Disposition of animals: At what point in the study, if any, will the animals be euthanized?

All animals will be euthanized at the end of the study.

l) Methods of euthanasia: Even if your study does not involve killing the animals, you should show a method that you would use in the event of unanticipated injury or illness. If anesthetic overdose is the method, show the agent, dose, and route.

Species	Method	Drug	Dose (mg/kg)	route
rhesus	IV	pentobarbital	60mg/kg	IV

m) Surplus animals: What will you do with any animals not euthanized at the conclusion of the project?

All animals will be euthanized at the end of the study.

ANIMAL ROOM SAFETY INFORMATION

Complete this form if you will be using biohazards, radioisotopes, carcinogens, or toxic chemicals in the animal room.

PROTOCOL # 9869**EXPIRES:** _____

RUA#: _____

BUA#: 0447

CCA#: _____

Identity of Hazard: Investigator Last Name: Department: First Name: Phone: Email: Fax: **Provide a short description of the agent:**

SIV and SHIV are primate lentiviruses which can infect human cells and potentially humans.

This agent / material is hazardous for: Humans only Animals only Humans and Animals
For which Animal Species?

The agent can be spread by: Blood Feces/urine
 Saliva/nasal droplets Does not leave animal
 Other: All mucosal secretions can be contaminated

Describe any human health risk associated with this agent:

No human disease related to these viruses has ever been described. However, there is a potential for these viruses to infect humans.

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 Biohazardous Waste Container
 Bag and Autoclave EH&S will pick-up (2-1493).
 All contaminated waste (soiled bedding or other animal waste) must be properly labeled and disposed of as follows:
 Incineration Biohazardous Waste Container
 Bag and Autoclave EH&S will pick-up (2-1493).

Personal Protective Equipment Required:

- The following personal protective equipment must be worn/used in the room:
 Lab Coat/Coveralls Shoe Covers/Booties
 Disposable Gloves Head Cover
 NIOSH Certified Dust Mask Disinfectant footbath
 Eye Protection/Face Shield
 Fitted Respirator Type:
 Other: Plastic disposable gown/coveralls 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 room:

