

## Standard Operating Procedures for Cyclosporine

### For an Emergency refer to the Safety Data Sheet

#### Hazards:

Carcinogen- may cause cancer

Possible Teratogen- may cause birth defects

Reproductive Toxicity- infertility in males

Toxin- inhalation, ingestion, skin contact

#### Chemical handling instructions:

##### Personal Protective Equipment (PPE):

Those handling cyclosporine must wear chemically resistant gloves, lab coat, eye protection, and appropriate lab attire (pants, closed-toe shoes).

##### Preparing cyclosporine solutions:

1. Those preparing cyclosporine solutions must always handle it inside a certified chemical fume hood.
2. Wearing two sets of gloves (double gloving) is advised.
3. The work area should be prepared by laying down an absorbent work surface with the absorbent material facing up. Tape the edges of the absorbent material to prevent its movement in the fume hood.
4. Care should be taken to not generate any aerosol during the preparation or injection procedure. Always wash hands after removing gloves following handling cyclosporine.
5. To clean areas where cyclosporine has been handled, use a fresh preparation of 70% ethanol solution. Wipe down the surfaces three times (triple wipe) using a clean damp cloth for each wipe down. Any contaminated materials that cannot be cleaned should be placed into a container for hazardous waste, appropriately labeled for waste removal and placed in a designated area for disposal.

##### Waste Disposal:

1. Any leftover/unused cyclosporine should be collected for disposal as hazardous waste. All materials contaminated with the chemical and residual chemical must be disposed of as hazardous waste. Re-useable glassware and other non-porous materials can be decontaminated by rinsing three times (triple rinse) with a 70% ethanol solution.
2. Used needles/syringes should be disposed in a sharps container destined for incineration.
3. Contact the Safety Office at x2697 or [SafetyOffice@unthsc.edu](mailto:SafetyOffice@unthsc.edu) for hazardous waste pickup.

#### Animal Experiments

Research staff must inform DLAM in advance that cyclosporine will be used, and arrangements will be made for appropriate animal housing.

##### Injecting animals with cyclosporine:

1. Animals must be injected within a Class II Type B Biosafety cabinet or designated fume hood.
2. Animal handlers must wear PPE as above with a 2nd pair of gloves (double-glove).

Updated 04/08/2015

3. All needles must be disposed of in sharps container – do not recap or bend needles.
4. Dispose of waste as described above.

Cage handling:

1. DLAM staff should be made aware of cyclosporine use and cage cards should be labeled with “cyclosporine” after injection.
2. Animal cages and bedding are considered hazardous for a minimum of 18 hours after an injection of cyclosporine. The first cage change after each drug administration is to be done no sooner than 18 hours after the administration.
3. The bedding in the first cage change is considered contaminated and requires special handling and appropriate PPE (including respirator).
4. All bedding changes should be handled using procedures that minimize aerosolization.
5. After this first cage change there is no need for further special precautions to be taken regarding the animals or the cages as long as the animals have not received any more cyclosporine.