

Use of Cyclosporine

Purpose:

To provide guidance for the use of Cyclosporine in the laboratory and animal facility environment. Cyclosporine is commonly used at UW-Madison in transplant research to reduce the chance of host-graft rejection

Precautions:

The following information can be used to complete the Safety section of your animal protocol.

1. Chemical hazard agents – (Identify the category of the chemical): (*Select the following*)
 - Carcinogen
 - Reproductive Hazard/Teratogen
 - Irritant (respiratory/skin/eye)
2. Containment preparation – (Containment equipment required for the preparation of the chemical): (*Select the following*)
 - Fume Hood
3. Containment animals – (Containment equipment required for chemical administration and handling animals after exposure to the chemical): (*Select the following*)
 - No special containment needed
4. PPE needed - (for handling live animals, carcasses or animal waste/dirty bedding): (*Select all of the following*)
 - Exam gloves – nitrile OR Exam gloves – latex
 - Safety glasses/goggles
 - Lab coat or disposable gown
5. Waste Disposal: (disposal of animal waste/dirty bedding from animals after exposure to the chemical) (*Select the following*)
 - No special precautions needed for waste/dirty bedding
6. Carcass disposal: (*Select the following*)
 - Pick up by EH&S for incineration.
7. Chemical human risk: (*Add the following*)

Adverse drug reactions to cyclosporine can include gingival hyperplasia, convulsions, peptic ulcers, pancreatitis, fever, vomiting, diarrhea, confusion, hypercholesterolemia, dyspnea, numbness and tingling particularly of the lips, pruritus, high blood pressure, potassium retention, and possibly hyperkalemia, kidney and liver dysfunction (nephrotoxicity and hepatotoxicity), burning

sensations at finger tips and an increased vulnerability to opportunistic fungal and viral infections. Exposure may also cause the following: effect fertility and/or unborn child and breastfed infants; lymphomas; convulsions; seizure or tremors; nutritional & gross metabolic changes; gastrointestinal disturbances; cardiovascular changes; biochemical changes. Exposure may cause irritation to eyes; mucous membranes, upper respiratory tract and skin. Ingestion is the primary route for occupational hazards for cyclosporine. Cyclosporine should not be handled by pregnant or lactating women or by immunocompromised individuals.

References:

“Cyclosporine: Medline Plus Drug Information” US National Library of Medicine, National Institutes of Health.

<http://www.nlm.nih.gov/medlineplus/druginfo/meds/a601207.html>

“Cyclosporine SDS”

<http://www.sigmaaldrich.com/catalog/product/usp/1158504?lang=en®ion=US>