

Use of Doxycycline

Purpose:

To provide guidance for the use of Doxycycline in the laboratory and animal facility environment. Doxycycline is an antibiotic used at UW-Madison in animal research for treating bacterial infections contracted as part of research protocols or complications.

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*)
 - Teratogen/Reproductive Hazard
 - Toxicant/Toxic Agent
 - Irritant (skin, eye, respiratory)
2. Containment preparation – (Containment equipment required for the preparation of the chemical): (*Select one of the following*)
 - Fume Hood

OR

 - Ducted Biosafety Cabinet (BSC)
3. Containment animals – (Containment equipment required for chemical administration and handling animals after exposure to the chemical): (*Select one of the following*)
 - No special containment needed.

NOTE: For Rodents: Microisolators or other containment type housing is recommended.
4. PPE needed - (for handling live animals, carcasses, or animal waste/dirty bedding): (*Select the following*)
 - Exam gloves – nitrile
 - Safety glasses/goggles
 - Lab coat or disposable gown
5. Waste Disposal: (disposal of animal waste/dirty bedding from animals after exposure to the chemical)
 - No special precautions need for waste/dirty bedding.
6. Carcass disposal: (*Select the following*)
 - Pick up by EH&S for incineration

7. Chemical human risk: *(Add the following)*

- Doxycycline is a skin, eye, and respiratory irritant and toxic if ingested or inhaled. Pregnant and lactating women should avoid exposure as doxycycline is a teratogen and may damage fertility or the unborn child.

Additional Information: Unused, expired, or unwanted mixtures of this compound that were intended to be applied to animals are regulated as Hazardous Waste Pharmaceuticals and should not be disposed of down the drain. When chemicals are ready for disposal, submit a request via the Chemical Disposal/Surplus Pickup Request Form. You must also fill out the paper Surplus Chemicals Form and keep it with the chemicals for pick up. List the chemicals as 'Hazardous Waste Pharmaceuticals' and place the chemicals inside a sealed container. This can be as simple as a plastic Ziploc bag or a rigid plastic container with a lid. Label the container with 'Hazardous Waste Pharmaceuticals' and the date of the first item that was added to the container. Waste items for disposal must be picked up within 1 year, and you can always have them picked up sooner.

<https://ehs.wisc.edu/disposal-services/chemical-disposal/chemical-disposal-surplus-pick-up-form/>

References:

"Doxycycline SDS"

<https://www.sigmaaldrich.com/US/en/sds/sigma/d9891>