Use of Chloramphenicol

Purpose:
To provide guidance for the use of Chloramphenicol in the laboratory and animal facility environment. Chloramphenicol is commonly used in the laboratory environment at UW-Madison for selection of microbes (in vitro) that have been engineered to have resistance to chloramphenicol; and also as an antibiotic in live animals.

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):
   - Carcinogen
   - Irritant (respiratory/eye/skin)
   - Reproductive Hazard/Teratogen

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 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)
   - Chloramphenicol is listed as a possible carcinogen and is suspected of damaging fertility or the unborn child. It also causes serious eye damage.
References:

“15th Report on Carcinogens: Chloramphenicol” NIH December 2021
https://www.ncbi.nlm.nih.gov/books/NBK590913/

“Chloramphenicol SDS”
https://www.caymanchem.com/msdss/14334m.pdf

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