

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>

“Chloramphenicol SDS”
<https://www.sigmaaldrich.com/US/en/sds/SIGMA/C0378>