

Use of Dimethylbenzanthracene (DMBA)

Purpose:

To provide guidance for the use of Dimethylbenzanthracene (DMBA) in the laboratory and animal facility environment. DMBA is used at UW-Madison in cancer research to initiate tumors.

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*)
 - Mutagen
 - Carcinogen
 - Reproductive Hazard/Teratogen
 - Toxicant/Toxic Agent
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*)
 - Ducted Biosafety Cabinet (BSC)

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 all of the following*)
 - Exam gloves – nitrile
 - Safety glasses/goggles ***NOTE:** *safety glasses should have side shields*
 - Lab coat or disposable gown
5. Waste Disposal: (disposal of animal waste/dirty bedding from animals after exposure to the chemical) (*Select both options and include additional information for Other*)
 - Bag animal waste/dirty bedding and place sealed bag in secondary container and place secondary container in regular trash.
 - Other: Signage is required on each individual cage containing the biohazard symbol and “Agent, End date and Disposal method”. Signs are removed when

special handling time has ended. *Cage signage available at
www.ehs.wisc.edu

6. Carcass disposal: *(Select the following)*

- Pick up by EH&S for incineration.

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

DMBA is a carcinogen, neoplastigen, tumorigen, and teratogen that can cause cancer and heritable genetic damage. DMBA is a yellow powder. Avoid contact with skin. Wear PPR when handling. Aerosolization or excretion in the feces/urine, blood or other surfaces of animals injected with DMBA is minimal and poses little risk. Because of the high level of carcinogenicity of DMBA, precautions are warranted when handling animals and their waste. Pregnant and lactating women should avoid exposure to DMBA and animals that have been administered DMBA

References:

“Chemical Safety Practices Recommendations DMBA” NIH April 2014

https://ncifrederick.cancer.gov/ehs/Safety/Media/Documents/CSPR_DMBA.pdf

“DMBA SDS”

<http://www.sigmaaldrich.com/catalog/product/aldrich/185582?lang=en®ion=US>