

Use of 7,12 Dimethylbenz(a)anthracene (DMBA)

Purpose:

To provide guidance for the use of 7,12 Dimethylbenz(a)anthracene (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
 - 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*)
 - 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 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) (*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: Chemical Hazard Cage Label is required on each individual cage containing the human health hazard symbol and “Agent and Disposal Method”. Labels are removed or crossed out when special handling time has ended. *

Chemical Hazard Cage Labels are available at www.ehs.wisc.edu/ehs-signage.

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

- Pick up by EH&S for incineration.

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

DMBA is a highly potent carcinogen that can cause cancer and heritable genetic damage. Avoid contact with skin, DMBA is toxic if inhaled and can cause severe skin burns and eye damage. Wear PPE 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.

References:

"DMBA SDS"

<https://www.sigmaaldrich.com/US/en/sds/sigma/d3254>

<https://cdn.caymanchem.com/cdn/msds/30383m.pdf>