

<b>Institutional Animal Care &amp; Use Committee</b>		
<b>Title: Use of Urethane</b>		
<b>Policy#: IACP 026</b>	<b>Date in Effect: 11/18/16</b>	
<b>Rev #:</b>	<b>Rev Date:</b>	
<b>In Effect</b> <input checked="" type="checkbox"/> <b>Rescinded</b> <input type="checkbox"/>	<b>Date Rescinded:</b>	

Urethane (ethyl carbamate, carbamic acid ethyl ester or ethylurethane) is considered a mutagen/carcinogen and can be readily absorbed through skin. It initiates pre-neoplastic changes in the skin, targets multiple organs, suppresses the bone marrow, readily crosses the placenta and induces fetal tumor formation (*in utero*). Therefore, the following are issues that need to be taken into consideration when using urethane and should be addressed in the protocol:

1. In order to prevent inhaling the volatized drug, work must be done under a chemical fume hood. When handling urethane in the crystalline or powdered form and when mixing urethane into aqueous solutions; always wear a facemask, goggles, and chemical resistant gloves.
2. Urethane containers must be kept closed. Once mixed into an aqueous solution, transfer urethane into a sealed bottle. This will prevent volatilization, spillage, and accidental contamination of the environment.
3. If urethane needs to be brought into the animal facility only bring the amount needed for the experiment. Remove any remaining amounts from the animal facility for proper disposal in the researcher's lab. Contact EHSRM for guidance on proper disposal <http://www.utsa.edu/safety/> or x5250.
4. Wear nitrile gloves if the user is to come in contact with blood or serum from an animal anesthetized with urethane.
5. If accidental contact of the skin, eyes, or other mucous membranes occurs, Wash the area thoroughly with water and immediately seek appropriate medical attention. Repeated transdermal exposure could result in bone marrow suppression. Report accidental exposure to EHSRM <http://www.utsa.edu/safety/#/workplace> as soon as possible after seeking appropriate medical attention.
6. Pregnant women should not work with urethane.
7. Due to its long-term carcinogenic effects in laboratory animals, urethane should be limited in use to non-recovery procedures. In addition, urethane produces peritoneal effusion and hemolysis.