

Institutional Animal Care Program (IACP)	
Title: Use of Urethane	
Policy number IACP 026	Date in Effect: 11/18/16
Revision 2	Re-reviewed and Revised Date: 03/14/25
In Effect <input checked="" type="checkbox"/> Rescinded <input type="checkbox"/>	Date Rescinded:

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 volatilized 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 facemask, goggles, and chemical resistant gloves.
2. Wear nitrile gloves if the user is to come in contact with blood or serum from an animal anesthetized with urethane.
3. 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 Risk and Emergency Management (REM) (link is <https://www.utsa.edu/rpm/services/safety-risk-management/index.html>) and report to Lab Safety Office at extension 6230,(website is <https://research.utsa.edu/compliance/lab-safety/>) as soon as possible after seeking appropriate medical attention.
4. Pregnant women should not work with urethane.



5. 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.