


Institutional Animal Care & Use Committee		
Title: Use of Urethane		
Policy#: IACP 026	Date in Effect: 11/18/16	
Rev #: 01	Rev Date: 04/12/19	
Rev #: 02	Rev Date: 11/12/21 -	
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 Rescinded 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	Date Rescinded:	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 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.

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. Excess amounts of aqueous or solid urethane must be submitted as chemical waste to the Hazardous Materials Management Division (HMM). Pick-up requests are filled out online on the BioRaft platform under the WASTE tap. Animal carcasses, body parts, residual tissue or bone must be double bagged in black plastic bags, securely closed and placed in one of the available freezers for carcass pickup on campus.

No pickup request is required, as these freezers are emptied on a weekly schedule. The freezer locations are: BSB 3.024 and SRL animal facility hallway. Important notice: Unbagged remains and remains in torn plastic bags, cardboard boxes or gloves will not be removed by hazardous Materials Management personnel

3. Wear nitrile gloves if the user is to come in contact with blood or serum from an animal anesthetized with urethane.
4. 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.

5. Pregnant women should not work with urethane.
6. 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.