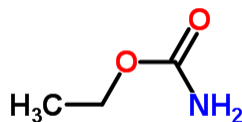


# UCSD Guidelines for the Preparation, Use and Storage of

## Urethane

(ethyl carbamate; ethyl urethane; CAS #51-79-6)



Urethane is a long-acting (6-10h) anesthetic used in laboratory animals during procedures of exceptionally long duration. It is often used for recording procedures where the preservation of neural transmission and autonomic reflexes is essential.

Urethane has been known to cause adverse post-operative health effects in animals, thus it may only be used for terminal procedures and with scientific justification. Due to its carcinogenic and mutagenic properties, Urethane also poses a significant health threat to laboratory personnel. Pregnant women should avoid working with urethane due to the antimitotic potential of this compound.

### STORAGE REQUIREMENTS

- Material should be stored in a tightly closed container in a cool, dry area.
- Material should be locked up, away from unauthorized users. This product should only be used by persons trained in the safe handling of hazardous chemicals.
- Keep away from incompatible materials, ignition sources, oxidizers and sunlight.
- Reconstituted urethane should be labeled with the following:
  - Name of each content and its expiration date
  - Concentration of the final solution
  - Date solution was mixed.
  - Expiration date of the mixed solution, which is **six months from the date the solution is prepared** or the expiration date of the stock drug or diluent used to make the solution, whichever date is first.
- Empty containers must not be washed and re-used for any purpose, but should be relinquished to EH&S as hazardous waste.
- For information on the proper disposal of animal waste and bedding please refer to the Hazardous Agents section of the approved IACUC protocol.

### SPECIAL PRECAUTIONS

#### Hand Protection

- Nitrile gloves are recommended for incidental exposure. If extended contact is possible, double gloving is recommended. Wash hands thoroughly after handling.

#### Eye Protection

- If handling urethane outside of a certified fume hood, properly fitting safety glasses with side shields or safety goggles (ANSI Z-87 approved) are required.

#### Respiratory Protection

- In order to prevent inhaling the volatilized drug, procedures should be conducted inside a certified fume hood.
- If handling urethane outside of a certified fume hood, a face mask or respirator is required.

#### Skin Protection

- Flame resistant lab coats must be worn with sleeves of sufficient length to prevent skin exposure while wearing gloves.

## **ADDITIONAL INFORMATION**

### Waste Disposal

- <http://blink.ucsd.edu/safety/research-lab/hazardous-waste/chemical.html>

### Accidental Exposure

- <http://blink.ucsd.edu/safety/emergencies/preparedness/guide.html#Personal-injury>

### Accidental Spills

- <http://blink.ucsd.edu/safety/emergencies/preparedness/guide.html#Chemical-or-Radiation-spill>

### Exposure Control Practices

- <http://blink.ucsd.edu/safety/research-lab/chemical/hygiene.html#Exposure-control-practices>

### Fit Testing

- If lab personnel will be using a respirator on either a required or voluntary basis, they must be trained and fit-tested by EH&S ([ehsih@ucsd.edu](mailto:ehsih@ucsd.edu))  
<http://blink.ucsd.edu/safety/occupational/PPE/respiratory/index.html>