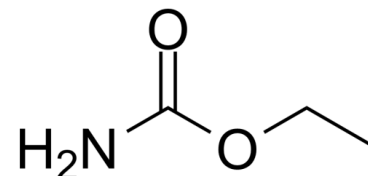


## Data Sheet

<b>Product Name:</b>	Urethane
<b>Cat. No.:</b>	CS-4731
<b>CAS No.:</b>	51-79-6
<b>Molecular Formula:</b>	C <sub>3</sub> H <sub>7</sub> NO <sub>2</sub>
<b>Molecular Weight:</b>	89.09
<b>Target:</b>	Bacterial; Parasite
<b>Pathway:</b>	Anti-infection
<b>Solubility:</b>	DMSO : 100 mg/mL (1122.46 mM; Need ultrasonic)



### BIOLOGICAL ACTIVITY:

Urethane (Ethyl carbamate), the ethyl ester of carbamic acid, is a byproduct of fermentation found in various food products. Urethane has the ability to suppress **bacterial, protozoal**, sea urchin egg, and plant tissue growth in vitro<sup>[1]</sup>. **In Vitro:** Urethane is a good clastogen in mammalian somatic cells in vivo, but it shows variable results with cells in vitro. Urethane efficiently induces sister chromatid exchanges in a variety of cells<sup>[2]</sup>. **In Vivo:** Urethane has been used for many years to produce hypnosis and narcosis in mammals, fish, and amphibians. At anaesthetic dosages (1-1.2 g/kg body weight for rats) Urethane has a wide margin of safety and causes minimal changes in blood pressure, aortic blood flow, and blood-gas values<sup>[1]</sup>. At a dosage of 1g/kg IP (administered intraperitoneally), Urethane will arrest cell division in the crypt of liberkuhn cells in mice<sup>[1]</sup>.

### References:

[1]. K J Field, et al. Hazards of urethane (ethyl carbamate): a review of the literature. Lab Anim. 1988 Jul;22(3):255-62.

[2]. R E Sotomayor, et al. Mutagenicity, metabolism, and DNA interactions of urethane. Toxicol Ind Health. 1990 Jan;6(1):71-108.

### CAIndexNames:

Carbamic acid, ethyl ester

### SMILES:

NC(OCC)=O

**Caution: Product has not been fully validated for medical applications. For research use only.**

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