

# **ANXIOLYTIC DRUGS (TRANQUILIZERS)**

**Pharmaceutical Chemistry I  
2017-2018**

A **tranquilizer (anxiolytics)** refers to a drug which is designed for the treatment of anxiety, fear, tension, agitation, and disturbances of the mind, specifically to reduce states of anxiety and tension.

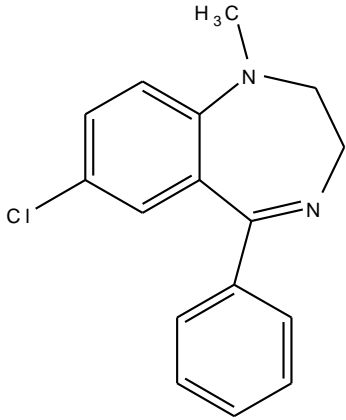
# Classification of Anxiolytics

1. **Benzodiazepine derivatives**
2. **Propandioldicarbamate derivatives**
3. **Diphenylmethane derivatives**
4. **Cyclopyrolone derivatives**
5. **Miscellaneous compounds**

# 1-BENZODIAZEPINES

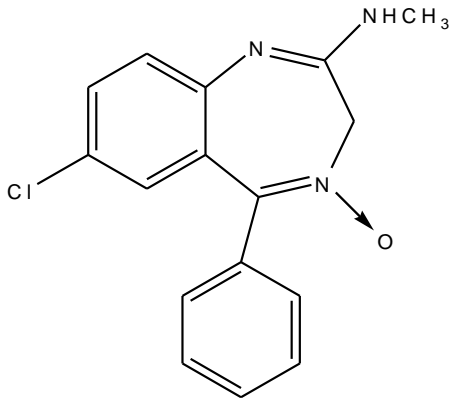
# a- Benzodiazepine & Benzodiazepine-N-oxide derivatives

## Medazepam



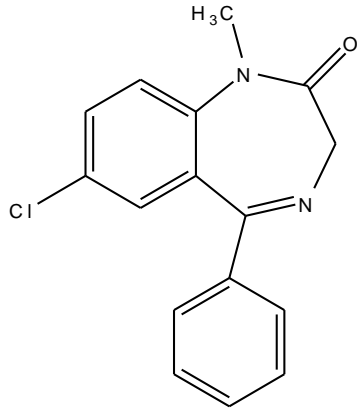
**7-chloro-1-methyl-5-phenyl-2,3-dihydro-1*H*-[1,4]-benzodiazepine**

## Chlordiazepoxide



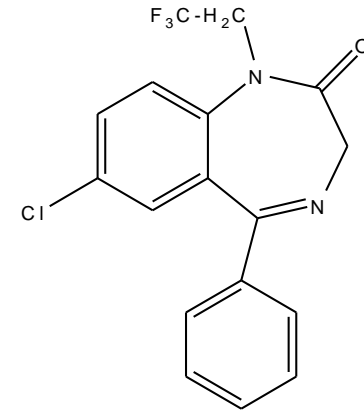
## b- Benzodiazepine-2-on derivatives

### Diazepam



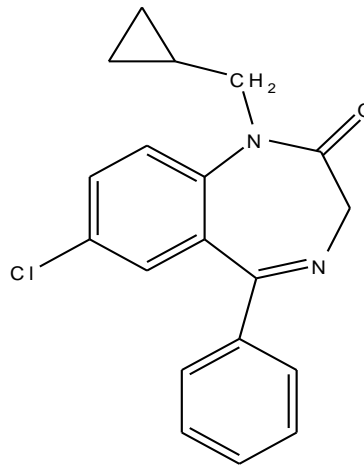
**1-Methyl-7-chloro-5-phenyl-  
1,3-dihydro-2H-1,4-  
benzodiazepine-2-on**

### Halazepam



**7-chloro-1-(2,2,2-trifluoroethyl)-  
-5-phenyl-1,3-dihydro-2H-1,4-  
benzodiazepine-2-on**

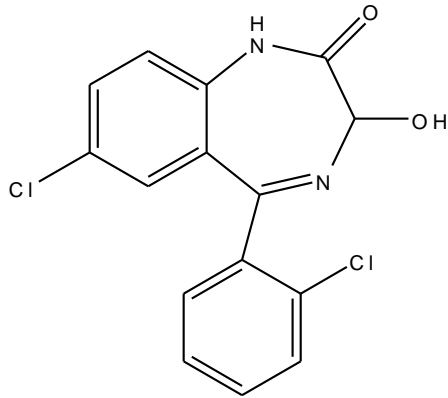
### Prazepam



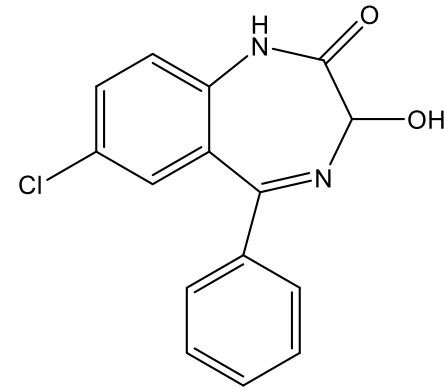
**7-chloro-1-cyclopropylmethyl-5-phenyl-  
1,3-dihydro-2H-1,4-benzodiazepine-2-on**

# c- 3-Substituted Benzodiazepine-2-on derivatives

## Lorazepam

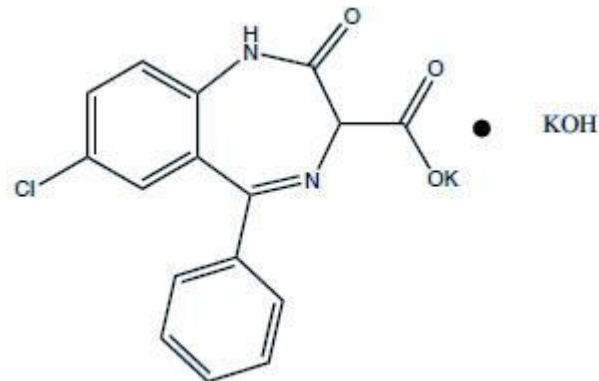


## Oksazepam



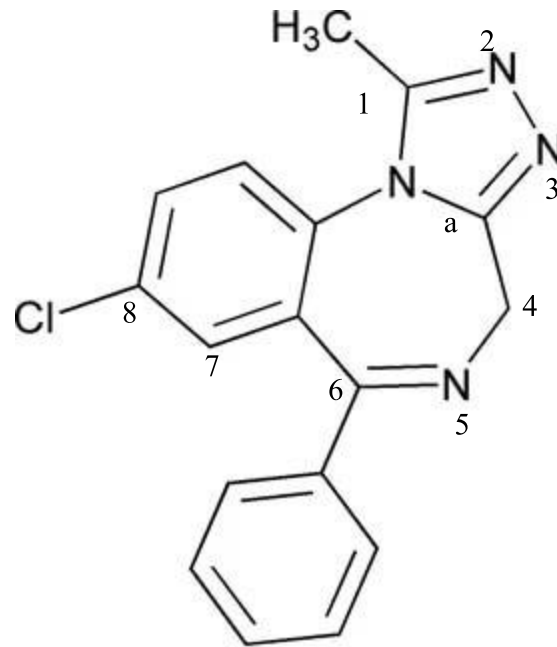
7-chloro-5-(2-chlorophenyl)-3-hydroxy-1*H*-  
[1,4]benzodiazepine-2(3*H*)-on

## Chlorazepate



## d- Triazolobenzodiazepine derivatives

### Alprazolam

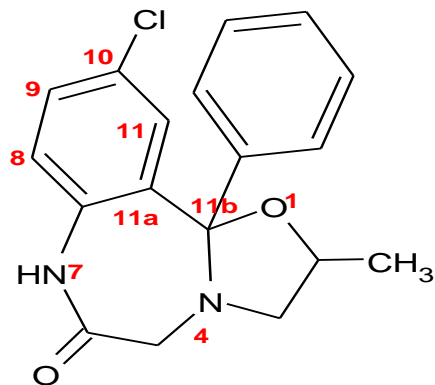


**1-Methyl-8-chloro-6-phenyl-4H-1,2,4-triazolo  
[4,3-a] 1,4-benzodiazepine**



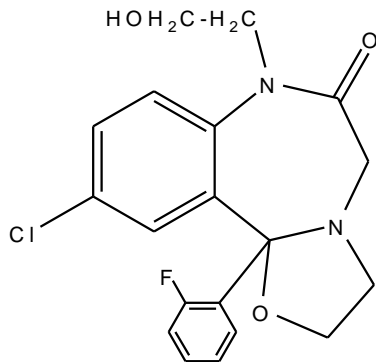
# e- Oksazolobenzodiazepine derivatives

## Oksazolam



10-chloro-11b-phenyl-2-methyl-2,3,7,11b-tetrahydro  
oxazolo [3,2-d] 1,4-benzodiazepine-6 (5H)-on

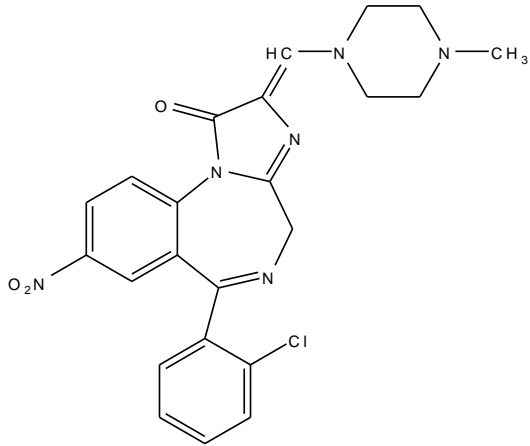
## Flutazolam



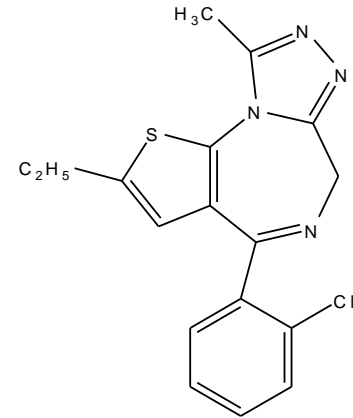
7-(2-hydroxyethyl)-10-chloro-11b-(2-fluorophenyl)-  
2,3,7,11b tetrahydro-oxazolo [3,2-d] 1,4-benzodiazepine-  
6(5H)-on

## f- Other Tricyclic Benzodiazepine Derivatives

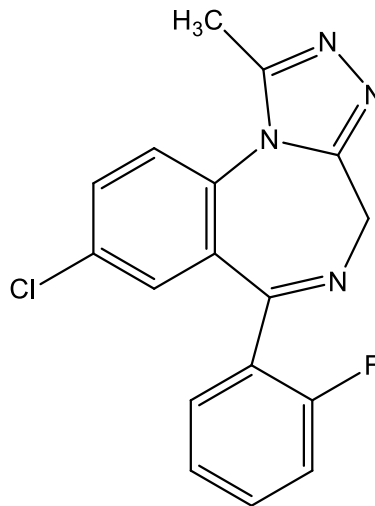
**Loprazolam**



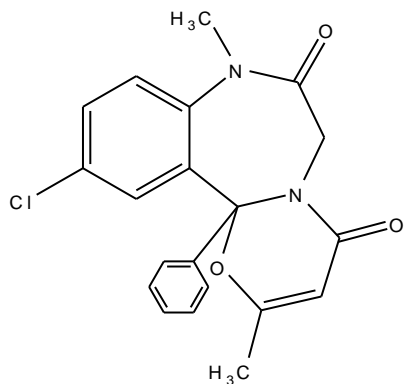
**Etizolam**



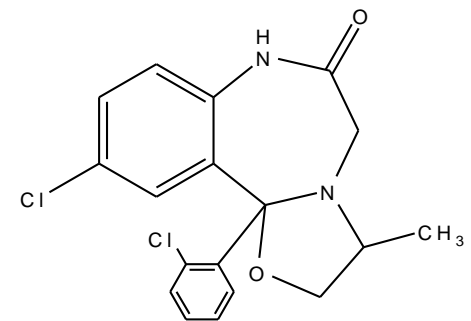
**Midazolam**



**Ketazolam**

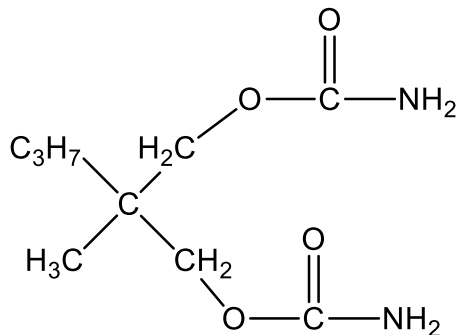


**Mexazolam**



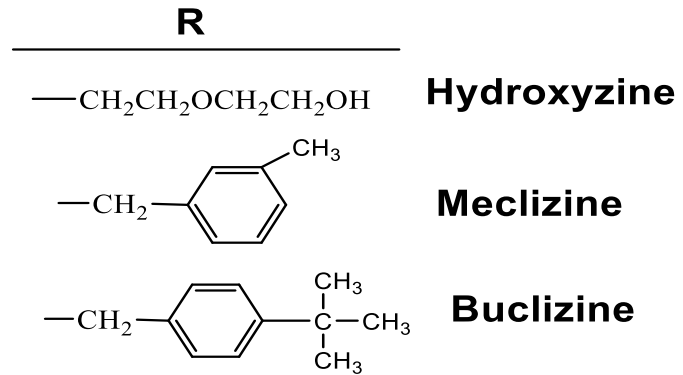
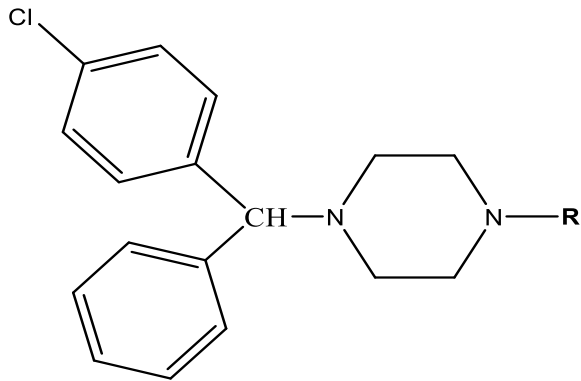
## 2- Propandioldicarbamate Derivatives

### Meprobamate



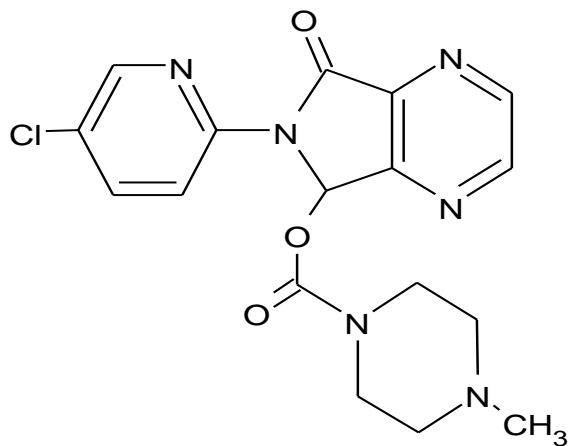
2-Methyl-2-propyl propane-1,3-diol-dicarbamate

# 3- Diphenylmethane derivatives



# 4-Cyclopyrrolone Derivatives

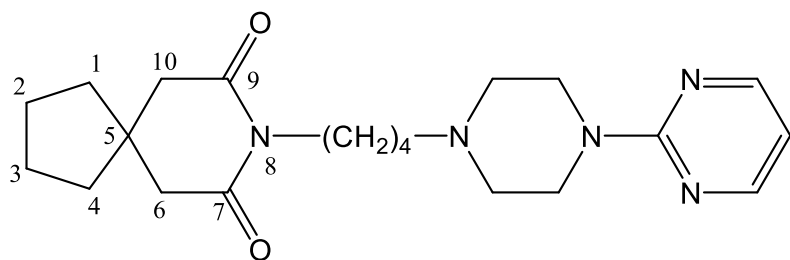
## Zopiclone



6-(5-chloropyridin-2-yl)-7-oxo-6,7-dihydro-5H-pyrolo[3,4-b]pyrazine-5-yl 4-methylpiperazine-1-karboxylate

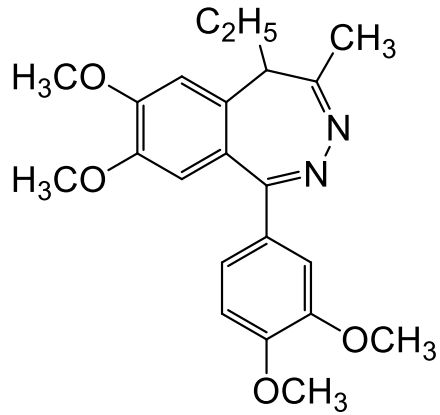
## 5- Miscellaneous compounds

### Buspirone



8-[4-(4-(pyrimidin-2-yl)-1-piperazinyl)-butyl]-  
8-aza spiro-[4,5]-decane-7,9-dione

# Tofisopam



1-(3,4-dimethoxyphenyl)-5-ethyl-7,8-dimethoxy-4-methyl-5*H*-2,3-benzodiazepine