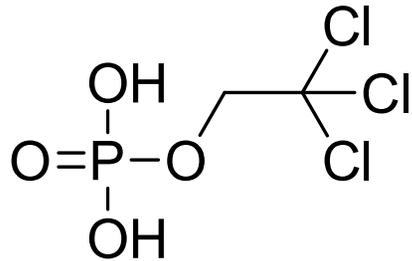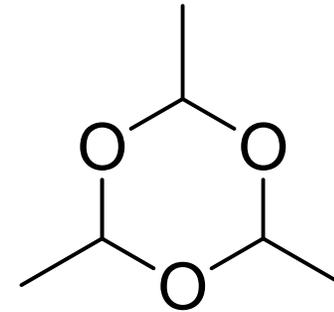## Triclofos sodium

MOA-It is a CNS depressant drug but the exact mechanism is unknown.
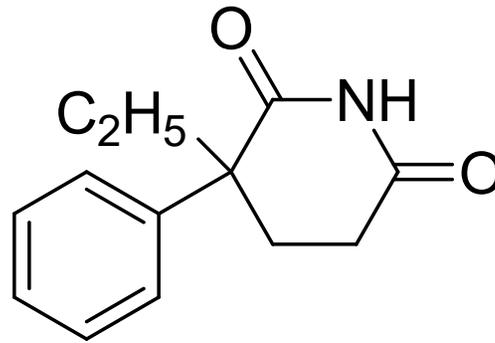
USES- Sedative and hypnotics

Paraldehyde

MOA-The exact mechanism of this effect is unknown. Paraldehyde is believed to reduce the release of acetylcholine in response to neuronal depolarization.

**USES**-Paraldehyde was used historically as a sedative and hypnotic.

Glutethimide

MOA-Glutethimide, It was introduced in 1954 as a safer alternative to barbiturates. Its exact mechanism of action is unknown but Glutethimide seems to be a GABA agonist which helps induce sedation. It cause addiction and withdrawal symptoms.

Uses-For the treatment of insomnia.

Meprobamate
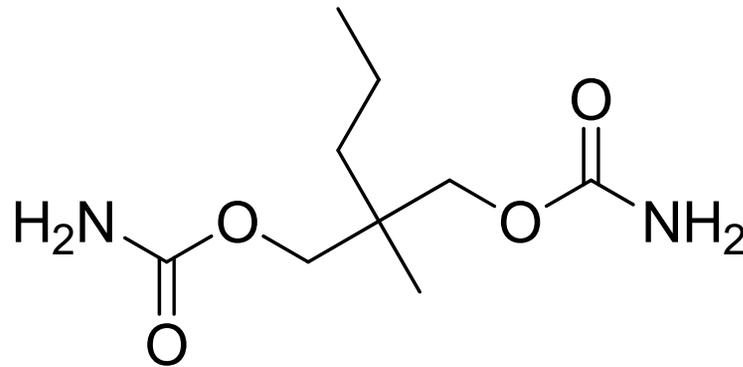
MOA- Meprobamate's mechanism of action is not fully understood. meprobamate is reported to act at multiple sites in the central nervous system. It binds to the $GABA_A$ receptors, leading to inhibitory effects on the neurons transmitting signals in the reticular formation and spinal cord.

Uses-For the management of anxiety disorders.

Ethchlorvynol
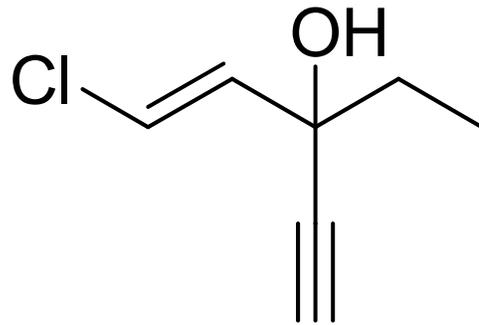
MOA- Although the exact mechanism of action is unknown, ethchlorvynol appears to depress the central nervous system in a manner similar to that of barbiturates. Barbiturates bind at a distinct binding sites associated with a Cl^- Ion channel at the $GABA_A$ receptor, increasing the duration of time for which the Cl^- ion channel remain open.

USES-Used for short-term hypnotic therapy in the management of insomnia.

SAR of barbiturates

Barbiturates are represented by the general structure
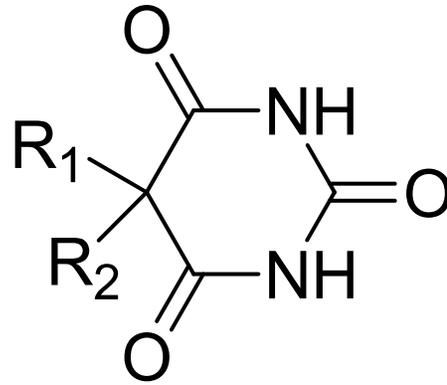
❖ Both hydrogen atoms present at the 5th position of barbituric acid must be replaced because if hydrogens are present at 5th it leads to tautomerisation to highly acidic trihydroxypyrimidine