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Dept: 17bbs

- ① CH_3OCH_3 : Methoxymethane
 $\text{CH}_3\text{CH}_2\text{OCH}_2\text{CH}_3$: Ethoxyethane
 $\text{CH}_3\text{CH}_2\text{OCH}_3$: Ethoxymethane
 $\text{CH}_3\text{CH}_2\text{CH}_2\text{OCH}_2\text{CH}_3$: Prothoxyethane
 $\text{C}(\text{CH}_3\text{CH}_2\text{CH}_2\text{CH}_2)_2\text{O}$: Butoxymethane

Properties of ethers

- ① Physical states: Ethers are colourless, neutral liquid with pleasant odors at room temperatures.
Lower aliphatic ethers are highly flammable gases or volatile liquid.
- ② Solubility: Ethers are less soluble in water than corresponding alcohol, lower molecular weight ethers are fairly soluble in water.
- ③ Boiling point: Lower molecular mass ethers have a lower boiling point than corresponding alcohol while ether containing alkyl radicals larger than 4 carbon atom have a higher boiling point.
- ④ Reactivity: Ethers are relatively at molecular temperature and such ~~leads~~ leads to their wide use as reactive media.
- ⑤ Density: Increases with increasing relative molecular mass. Simple ethers are less than water.

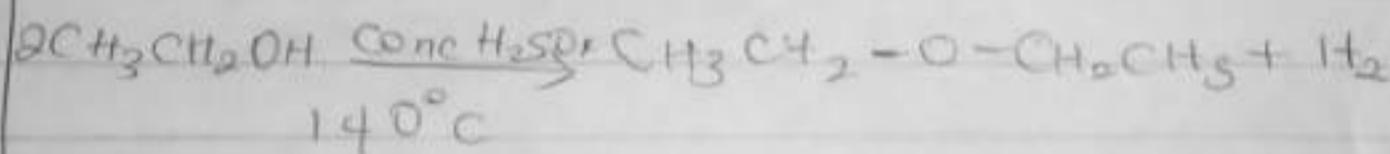
④ uses of ethylene oxide

- 1 As a gaseous sterilizing agent
- 2 As an intermediate in the hydrolytic manufacture of ethylene glycols
- 3 used in the manufacture of product like glycol

3 Two method of preparing ether and their equation of reaction

① Partial dehydration of alcohol:

Simple ether are prepared by catalytic dehydration of manufactured alcohol by a process called esterification in excess alcohol or high temperature as high as $4170 - 180^\circ\text{C}$



② From Haloalkanes and dry silver (I) oxide:
Ethers can be prepared by heating haloalkanes with dry silver oxide

