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Course: Chem

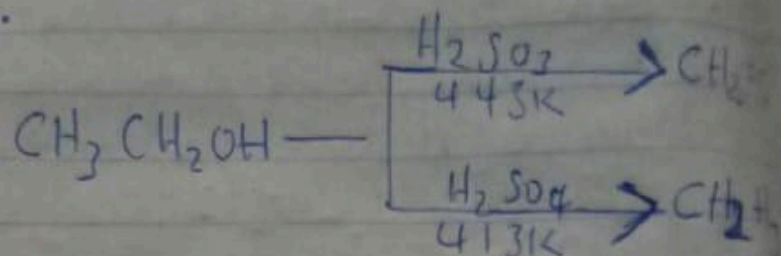
- CH_3OCH_3 - Dimethyl ether
- $\text{CH}_3\text{CH}_2\text{OCH}_2\text{CH}_3$: this is an ether so the nomenclature for naming this compound will be Alkoxy alkane
- $\text{C}(\text{CH}_3)_2\text{CH}_2\text{CH}_2\text{CH}_3$:

- CH_3CH_2 :- ethyl
- OCH_3 :- Methoxy Ethane - written as $\text{C}_2\text{H}_5\text{OCH}_3$
- 1. • $\text{CH}_3\text{CH}_2\text{CH}_2\text{OCH}_2\text{CH}_3$:-

② An **E**ther has a net dipole moment due to the polarity of C-O bonds. The boiling point of ethers is comparable to the alkanes but much lower than that of alcohols.

③ Preparation of ethers by Dehydration of Alcohols: ~~in the~~ Sulphuric acid, alcohols undergo dehydration to produce alkenes and ethers under different conditions. For example in the presence of Sulphuric acid

dehydration of ethanol at 443K gives ethene whereas it yields ethoxyethane at 413K.



2 Preparation of Ethes by Williamson Synthesis
Williamson Synthesis is an important method for the preparation of symmetrical and asymmetrical ethes. In laboratories, this method alkyl halide is reacted with sodium alkoxide which leads to formation of ethe.
$$\text{R-X} + \text{R}'\text{-ONa} \longrightarrow \text{R-O-R}' + \text{NaX}$$

④ Ethylene oxide is used for the production of detergents, antifreeze, polyester, fumigants, and pesticides.