/04/20 ASSIGNMENT ON ETHERS PG 1

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Answers

1a CH_3OCH_3 - Methoxymethane
b. $CH_3CH_2OCH_2CH_3$ - Ethoxyethane
c. $(CH_3CH_2CH_2CH_2)_2OCH_3$ -
d. $CH_3CH_2CH_3CH_2CH_2OCH_2CH_3$ - Ethoxy propane

2a. Physical states: At room temperature ethers are colourless, neutral liquids with pleasant odours. The lower ether are highly flammable gases and liquids.

b. Solubility: Ethers are less soluble in water than the corresponding alcohols. Lower molecular weight ethers are fairly soluble in water as the molecules are able to form hydrogen bonds with the water molecule but as the hydrocarbon content increases there is a rapid decline in solubility. They are miscible with other organic solvents.

c. Density: Most simple ethers are less dense than water, although density increases with increasing molecular mass and some of the aromatic ethers are in fact denser than water.

d. Boiling Point: Lower molecular mass ethers have a lower boiling point than corresponding alcohols but those ethers containing alkyl radicals larger than four carbon atoms, the reverse is true. The boiling point of ethers tend to approximate those of hydrocarbons of same relative molecular mass from which it can be