1) IUPAC NAMES OF THE FOLLOWING ORGANIC COMPOUNDS

1)CH3OCH3:Methoxymethane

2)CH3CH2OCH2CH3:Ethoxyethane

3)[CH3CH2CH2CH2]2O:Dibutyl ether

4)CH3CH2OCH3:Ethyl methyl ether

5)CH3CH2CH2OCH2CH3:Ethyl propyl ether

2)- lower aliphatic ethers are highly flammable gases or volatile liquids

-ethers are less soluble in water than corresponding alcohols . Lower RMM ethers such as methoxymethane are soluble in water because they are able to form hydrogen bonds with the water molecules , but increase in hydrocarbon content molecules leads to a decrease in solubility .Miscible in most organic solvents .

-most simple ethers are less dense than water , although density increases with increasing RMM and some ethers are denser than water .

-ethers are inert at moderate temperature

3) –partial dehydration of alcohols . The alcohol is heated in H2SO4 at 140 degree celcius . This process is known as continuos esterification.

-controlled catalytic hydration of olefins.

4)-used in manufacturing plastics , emulsifying agents , plasticizers and synthetic textiles

-used as gaseous sterilizing agents for medical equipments

-used as intermediate in the manufacture of ethylene glycerol

-used to make antifreeze , adhesives ,detergents and polyester

-used in the production of fumigants and pesticides .

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