Dimethylether and ethyl methyl ether are gases at ordinary temperature. The other lower homologues are colorless, pleasant smelling, volatile liquids with typical ether smell.

**Boiling points**

The C - O bonds in ether are polar and thus ethers have a net dipole moment. The weak polarity of ethers do not appreciably affect their boiling points which are comparable to those of the alkenes of comparable molecular mass. Ethers have much lower boiling points as compared to isomeric alcohols. This is because alcohols molecules are associated by hydrogen bonds while ether molecules are not.

**Solubility**

Ethers containing up to 3 carbon atoms are soluble in water, due to their hydrogen bond formation with water molecules.

![ Ether molecule diagram ]

The solubility decreases with increase in the number of carbon atoms. The relative increase in the hydrocarbon portion of the molecule decreases the tendency of H-bond formation. Ethers are appreciably soluble in organic solvents like alcohol, benzene, acetone etc.

**Contributors**

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