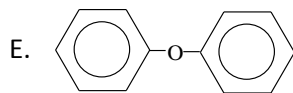
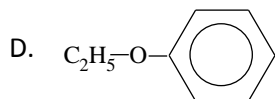


ETHERS

1. Name the following compounds.



2. Draw structures for the following compounds.

A. ethyl propyl ether

B. diethyl ether

C. methyl vinyl ether

D. allyl ether

E. methyl t-butyl ether

F. 2-methoxypentane

G. tert-butyl phenyl ether

3. How many grams of diethyl ether can be prepared from 40 g of 92% ethyl alcohol by 70% yield?

4. 0.2 mol of simple ether requires 268.8 L of air at STP to be burned. What is the molecular formula of ether? (One-fifth of air is oxygen)

5. When the mixture of 14.8 g of butyl alcohol and methyl propyl ether is reacted with sodium metal, 0.025 mol of hydrogen gas is liberated. What is the percentage by mass of alcohol in the mixture?

6. Starting from alcohol, write the equations for the preparation of ethylene and diethyl ether. What would be the maximum amount of ethylene and diethyl ether obtained from 2.76 g of ethyl alcohol?

7. The volume of CO_2 gas produced from the combustion of 11 g of dimethyl ether and methyl alcohol mixture is 8.96 L at STP. Calculate the mass percentage of ether in the mixture.

8. How many grams of diethyl ether can be produced from 58 g of 80% ethyl alcohol with 60% efficiency?

9. What is the maximum weight of the organic substance that can be produced from the reaction of 50 g of sodium methoxide with 50 g of ethyl iodide?