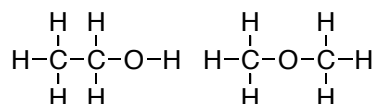


Answers to suggested problems from Chapter 6

2. MTBE is methyl t-butyl ether, a gasoline additive.
4. A functional group is a commonly-occurring group of atoms with characteristic reactivity.
5. a) ether; b) aldehyde; c) carboxylic acid
7. LD₅₀ is the dose that is lethal to 50% of the population.
9. Long-term heavy use of ethanol can lead to cirrhosis and cardiovascular problems.
13. Denatured alcohol is adulterated with methanol to make it undrinkable.
14. a) wood alcohol; b) grain alcohol
15. It burns well and has a high octane rating.
16. CO₂ and H₂O.
29. a) 2; b) 5; c) 1; d) 4; e) 3
30. Esters are made by combining an alcohol and a carboxylic acid.
- 32.



45. If a liquid boils at low temperatures, the attractive forces between the molecules are weak.
52. One kg is 2.2 lbs. Convert your weight to kg, then multiply by the LD₅₀.