

Combustion Reactions (Pg. 165-167)

What happens in a combustion reaction?

What reactant is common to all of the combustion reactions?

What is always produced during a combustion reaction?

The “fuel” in most combustion reactions is a hydrocarbon. Write a description of what a hydrocarbon is.

Summarize 1 of the combustion reactions given in the textbook on page 166.

Why is incomplete combustion dangerous?

Combustion of Octane (This is Gasoline)

produces carbon dioxide and water upon combustion

Materials: Gasoline
matches
crucible

Procedure:

1. Place $\text{C}_8\text{H}_{18}(\text{l})$ in a crucible
2. Place crucible in a fumehood
3. Set match on $\text{C}_8\text{H}_{18}(\text{l})$ to start reaction.

Observations? What happened?

What are the substances that were created in this reaction?

Balance this Chemical Equation:

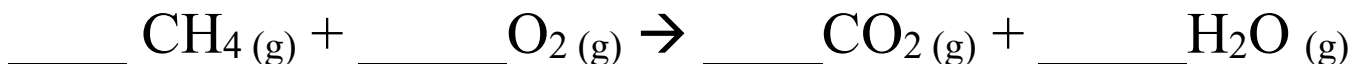


Diagrams

Diagrams

Balance these Combustion Reactions.

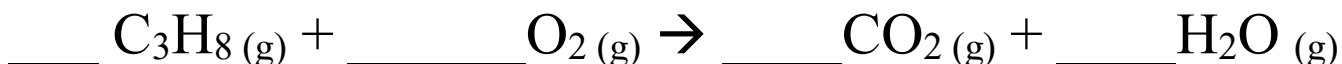
Combustion of Methane (Natural Gas)



Diagrams

Diagrams

Combustion of Propane (For BBQs)



Diagrams

Diagrams

Combustion of Butane (Found in Lighters)



Diagrams

Diagrams

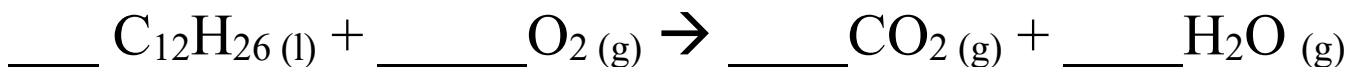
Combustion of Ethane (Found in Natural Gas Mixtures)



Diagrams

Diagrams

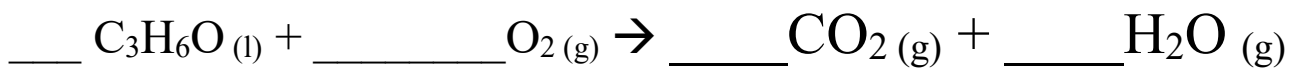
Combustion of WD-40



Diagrams

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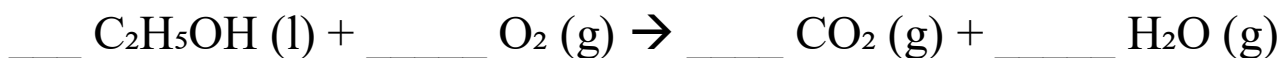
Combustion of Acetone



Diagrams

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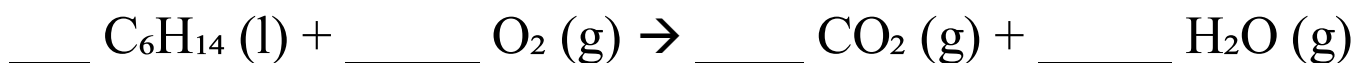
Combustion of Ethanol (Fuel / Hand Sanitizer)



Diagrams

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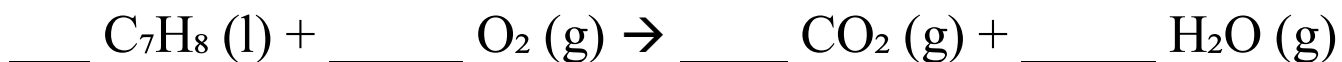
Combustion of Hexane (Gasoline Component)



Diagrams

Diagrams

Challenge: Combustion of Toluene (Octane Booster in Gasoline)



Diagrams

Diagrams

Challenge: Combustion of Mosquito Spray



Diagrams

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