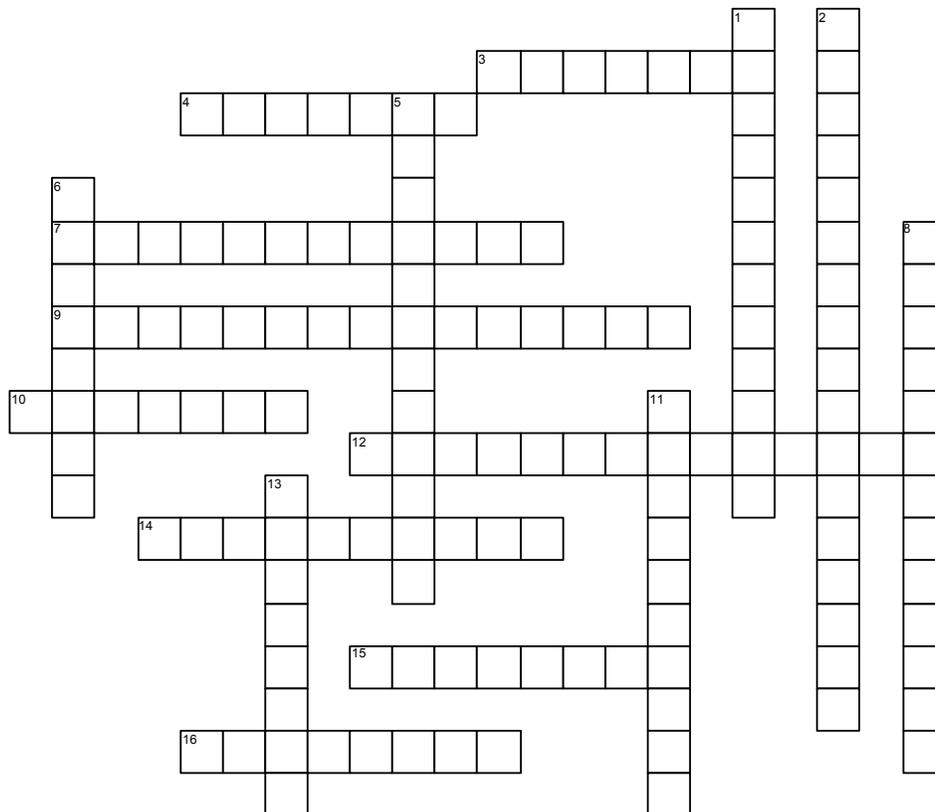


# Gasoline, Alternative Fuels, and Diesel Fuels

## Chapter 12



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### ACROSS

- 3 \_\_\_\_\_ is the most widely used of all the alternative fuels mainly because of its use in fleets, which utilize a central refueling station.
- 4 \_\_\_\_\_ is drinkable alcohol and is usually made from grain.
- 7 The \_\_\_\_\_ is the proportion by weight of air and gasoline that the injection system mixes as needed for engine combustion.
- 9 \_\_\_\_\_ contain oxygen in the molecule of the fuel itself.
- 10 \_\_\_\_\_ can be converted to synthesis gas by a process called partial oxidation, and later converted to methanol.
- 12 The ideal mixture or ratio at which all of the fuel combines with all of the oxygen in the air and burns completely is called the \_\_\_\_\_ ratio, a chemically perfect combination.
- 14 \_\_\_\_\_ is a metallic noise an engine makes, usually during acceleration, resulting from abnormal or uncontrolled combustion inside the cylinder.
- 15 \_\_\_\_\_ is a chemical compound formula that includes one carbon atom, four hydrogen atoms, and one oxygen atom.
- 16 All gasoline is said to be \_\_\_\_\_, meaning that it is capable of being interchanged because each grade is created to specification so there is no reason to keep the different gasoline brands separated except for grade.

### DOWN

- 1 The \_\_\_\_\_ is a measure of the ease with which the fuel can be ignited.
- 2 Today, instead of high heat, cracking is performed using a catalyst and is called \_\_\_\_\_.
- 5 The \_\_\_\_\_ of gasoline is the measure of its antiknock properties.
- 6 \_\_\_\_\_ is a term used to describe a complex mixture of various hydrocarbons refined from crude petroleum oil for use as a fuel in engines.
- 8 \_\_\_\_\_ is similar to catalytic cracking in that it uses a catalyst, but the catalyst is in a hydrogen atmosphere.
- 11 \_\_\_\_\_ describes how easily the gasoline evaporates.
- 13 \_\_\_\_\_ is the process during which hydrocarbons with higher boiling points can be broken down into lower boiling hydrocarbons by treating them to very high temperatures.