Fuel Glossary

Aromatics:
This is a type of chemical compound referred to as a cyclic organic due to it's circular structure. They are found in nearly all gasolines, normally as toluene. Xylene is less common, and benzene is restricted to very low levels due to toxicity.

Distillation:
A gasoline contains various hydrocarbons that boil at different temperatures. As a result, the gasoline boiling range can extend from 80OF to a maximum of 437'F. This is in contrast to water that bolls only at 212'F at sea level.

Octane Numbers:

Research Octane Number (RON)
is measured under mild conditions and is more important in controlling part throttle knock.

Motor Octane Number (MON)
is measured under more severe conditions and is most important for octane satisfaction at wide open throttle.

Anti-Knock Index (AKI)
is the average of the RON and MON. This is the number posted on the retail gasoline pumps normally indicating 87, 89, or 92 octane. Racing gasoline have AKI's from 100 to 118.

Oxygenated Compounds:
These are required in street gasolines in many areas of the U.S. to help reduce exhaust emissions. The two most common oxygenated compounds are Methyl Tertiary Butyl Ether (MTBE) and Ethanol (This is an alcohol).

Reid Vapor Pressure (RVP):
Normally measured in psi, RVP is a measure of the front end volatility of the (RVP)gasoline. This is important for getting a carburetor car started in cold weather. Summer RVP = 7 psi, and winter RVP = 13.5 psi.

Specific Gravity:
Measures the density of gasoline compared to water A specific gravity of 0.720 means that the gasoline weighs 0.72 times as much as water, or it is 72% of the weight of water. Most gasolines weigh about 6.2 pounds per gallon.

Volatility:
Used in referring to the ease with which a gasoline turns from a liquid to a vapor. Low volatility refers to low RVP, indicating less light hydrocarbons in the gasoline front end. Southern California summer grade gasolines have low volatility. Winter grade gasolines in Michigan are high volatility, or high RVP to make the engine easier to start in sub-zero temperatures.