



## **Advantages: Gasoline vs. Methanol**

Racing gasoline is a well-developed product that can make life much easier for a racer in this current day and age of being able to buy proven products rather than having to develop them through “trial and error”.

There are certain advantages that gasoline has over methanol as a racing fuel. Read on to learn more, and to avoid the “trial and error” portion of your life.

**Fuel Consumption:** A race car using gasoline will consume approximately one half as much fuel when compared to using methanol. The end result when using gasoline is that the fuel cell can be smaller, less weight is dedicated to the fuel, and less space needs to be dedicated for fuel storage in the trailer.

**Crankcase Oil:** It is always important to use good quality oil in a race engine. There are many choices when using gasoline as a fuel, but when using methanol good oil choices are significantly reduced. When using methanol, the engine uses much more fuel than it would with gasoline, thereby increasing the amount of fuel that gets into the oil. Crankcase oil diluted with methanol can be a serious problem, especially if separation takes place and the oil pump picks up a big slug of methanol which is a very poor lubricant. Bearing corrosion, potential rust, and excessive valve stem/guide/valve seat wear are common.

**Corrosion:** Methanol is very corrosive to the fuel system components when compared to gasoline. Steel, aluminum, pot metal, and soft materials in the fuel systems can be attacked by methanol. Stainless steel is the one material that is not attacked by methanol, but it is very expensive to make the entire fuel system from it, and adds weight to the car.

**Water in the fuel:** If, by chance, water gets in your racing fuel, it can ruin your day or it can be a non-issue depending on what kind of racing fuel you may be using. If your fuel is a racing gasoline that does not contain oxygenates (alcohol), water will stay on the bottom of the container and the gasoline will float on top of it. On the other hand, if your racing fuel is methanol (or ethanol), water will be absorbed into the fuel. Two things then happen; the first is that the specific gravity (weight) of the fuel increases and is cause for disqualification in many sanctioning bodies, and the second is that the engine will make less power because there is no energy available from the water.

**Cooling System:** Methanol has a high latent heat of vaporization meaning that it cools the intake manifold and cylinder heads as it vaporizes. Consequently, a methanol-fueled engine needs a lesser capacity cooling system than a gasoline fueled engine. This is where the weight trade-off is when compared to the additional weight of a stainless steel fuel system.

**Availability/Contamination:** Methanol is not always readily available, and because it has an affinity for water, it can easily become contaminated simply from the moisture in the air. It needs to be tested regularly to determine if it has absorbed moisture. Methanol will also loosen up any scale, corrosion, or other debris in the fuel system and carry it directly to your carburetor or fuel injectors creating more problems than you can imagine.

**Summary:** Rockett Brand™ Racing Gasoline solves most of the problems that are generated by methanol. Our highly trained tech line personnel can assist you in selecting the best racing gasoline for your application, and aid you in carburetor jetting and spark timing recommendations.



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