Phaser 3000®

The solution to today's gasoline issues.

January 2023

Primrose Oil Company, Inc. – Since 1916
11444 Denton Dr., Dallas, TX 75229
1-800-275-2772

Today's Gasoline Issues:

- Phase Separation
- Hard Starting and Lack of Power
- Premature Filter Plugging
- Sludge and Varnish
- Excessive Water in Fuel
- Premature Plug Fouling
- Fuel Storage Stability
- Rust and Corrosion
- Undesired Disposal

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Phase Separation

When ethanol blended gasoline reaches its saturation point because of contamination with H_2O, multiple layers are formed. The top layer is gasoline with a lower octane rating, and the bottom is a mixture of water and ethanol that will not ignite during engine combustion. If ethanol blended gasoline reaches this state, a phenomenon known as "Phase Separation," the engine can be detrimentally affected.

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Hard Starting and Lack of Power

Hard starting and lack of enough power can be caused by a low octane number, or octane points, gasoline fuel.

Also, a plugged filter can lead to a lack of power and/or hard starting.

Left unchecked, extreme damage can occur to a gasoline engine, and lead to large sums of money being lost in repairs.

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Premature Filter Plugging

Premature filter plugging can be caused by many different things, and can lead to many detriments, including:

- Premature engine, injector or fuel pump failure due to fuel “starvation”
- High filter replacement costs
- Undesired downtime
- Going over maintenance budgets

Sludge and Varnish

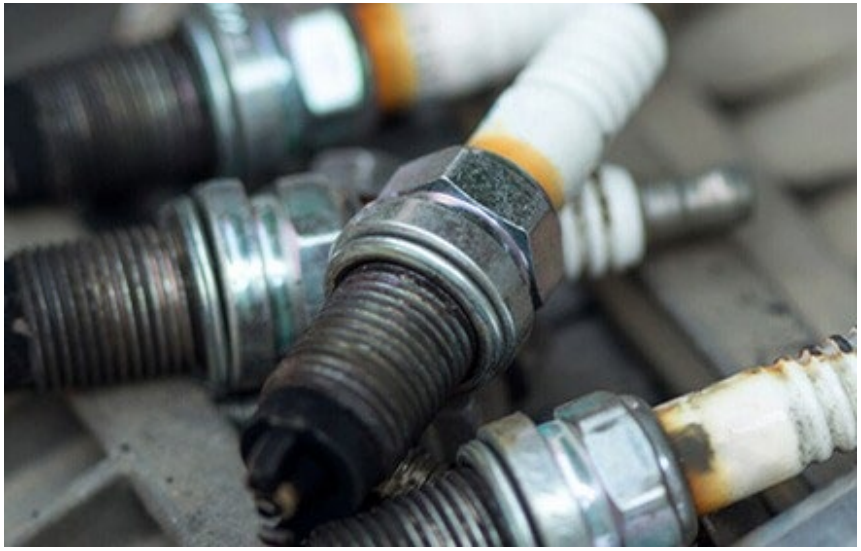
Sludge and varnish in gasoline can happen over time without proper water dispersant additives in gasoline. Too much water can act as a catalyst to the fast creation of sludge and varnish in gasoline.

Excessive Water in Fuel

Excessive water can come from gasoline transports of fuel, ingression from the air (tank “breathing”) or other sources. This can lead to:

- Premature filter life
- Excessive replacement filter costs
- Over spending on a maintenance budget

Premature Plug Fouling



Without the proper air to fuel ratio, and proper spark plug burn, premature fouling of spark plugs can occur. This can lead to:

- Burned up spark plugs
- Sludge in pistons
- Extra plug costs
- Excessive maintenance costs
- Unnecessary downtime

Fuel Storage Stability

Untreated gasoline, over time, can oxidize at an unchecked pace due to excess water from tanker loads or a tank "breathing," and lead to unusable fuel that has to be disposed of and replaced. This unnecessary phenomenon can lead to:

- Premature clogged filters
- High maintenance costs
- Unneeded downtime
- Fuel Disposal Costs*

* Check with your state, regional and local jurisdictions regarding if they will allow Phaser 3000® to turn a non-street legal gasoline back into an acceptable on-road gasoline fuel after proper treatment and additional gasoline, etc. being added. Things to ask about include what the maximum water percentage allowed is, if any, minimum octane level required, etc. Reference Phaser 3000® Technical Data Sheet.

Rust and Corrosion

Rust and corrosion in gasoline can be detrimental to many components of an engine, including the engine as a whole. Left unchecked, rust and corrosion in fuel lines can lead to:

- Premature clogged filters and/or strainer baskets
- Blown maintenance budgets
- Overspending on new filters
- Clogged Injectors
- Rusted lines
- Corroded and useless fuel pumps
- Excessive downtime

Undesired Disposal

Gasoline that has oxidized too much, or has too high of a concentration of water sometimes has to be disposed of. In many cases *Phase Separation* has occurred. This can lead to:

- Fuel replacement costs
- Blown maintenance budgets
- Excessive downtime
- Fuel disposal costs*

* Check with your state, regional and local jurisdictions regarding if they will allow Phaser 3000® to turn a non-street legal gasoline back into an acceptable on-road gasoline fuel after proper treatment and additional gasoline, etc. being added. Things to ask about include what the maximum water percentage allowed is, if any, minimum octane level required, etc. Reference Phaser 3000® Technical Data Sheet.

WHAT IS THE "FIX?"

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Phase Separation

Phaser 3000® is necessary because it can actually return separated layers (phase separation) back to one clear, homogeneous mixture. In this process, Phaser 3000® absorbs H_2O molecules in the phase separated gasoline by breaking the ethanol-water "H" bond and encapsulating the H_2O molecules, thus returning the separated layers back into one mixture. The H_2O molecules that are absorbed in Phaser 3000® are then eliminated safely during the normal combustion process of an engine.

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Hard Starting And Lack Of Power

Phaser 3000® contains xtremely strong water dispersants, that when used at the proper treat rate, in varying situations, will homogenize the gasoline fuel back into one form where it can be safely removed through the normal combustion process. This will help decrease hard starting, and return power back to the engine.

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Premature Filter Plugging

With the proper use of Phaser 3000®, filter life can be maintained and/or extended. This can lead to vast savings and contribute to the bottom line.

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Sludge and Varnish

When used at the recommended treatment ratio (1:500), Phaser 3000® will help to reduce sludge and varnish creation in gasoline.

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Excessive Water in Fuel

Phaser 3000® disperses moisture, the more moisture one desires to be dispersed, the higher recommended dose that the product should be used at.

Phaser 3000® was designed to disperse up to a concentration of ½ percent of water in gasoline.

The highest concentration Phaser 3000® may be used for fuel to be "street usable*" is 1:500; if phase reversing gasoline, one must add enough "fresh" gasoline back to tank to make a final 1:500 concentration of Phaser 3000®.

* Check with your state, regional and local jurisdictions regarding if they will allow Phaser 3000® to turn a non-street legal gasoline back into an acceptable on-road gasoline fuel after proper treatment and additional gasoline, etc. being added. Things to ask about include what the maximum water percentage allowed is, if any, minimum octane level required, etc. Reference Phaser 3000® Technical Data Sheet.

Premature Plug Fouling

Phaser 3000® contains concentrated water dispersants to homogenize undesired water in fuel where it can then be safely removed through the normal combustion process. This will help with combustion, bringing it back to a normal state where gasoline can be ignited and burned in a clean and proper fuel air to fuel ratio.

Use Phaser 3000® at least at the recommended dosage (1:500) for best results in most fuels.

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Fuel Storage Stability

Phaser 3000® can be used to prevent pre-mature oxidation of fuel due to excess water, even for seasonal storage stability.

It is recommended to treat the fuel with Phaser 3000® at the “recommended” dose (1:500) for seasonal storage stability.

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Rust and Corrosion

For best results to keep rust and corrosion "in check," use Phaser 3000® at the recommended 1:500 treatment ratio. This will help prevent free water in fuel tanks as the water will be dispersed throughout the fuel tank where it can finally be safely removed through the normal combustion process.

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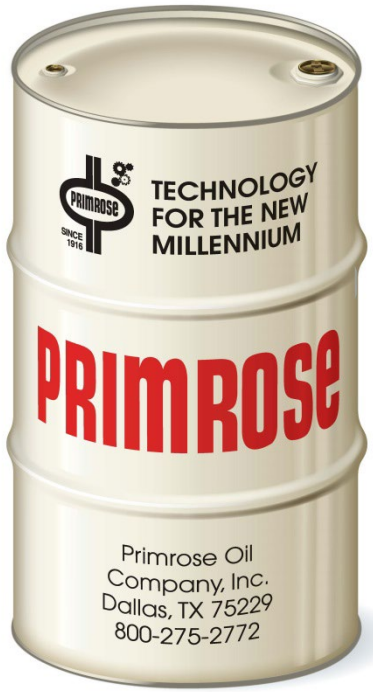
Undesired Disposal

For the best chance of not having to dispose of gasoline use Phaser 3000® at the recommended 1:500 treatment ratio. This will help prevent free water in fuel tanks, and help prevent *Phase Separation* as the water will be dispersed throughout the fuel tank where it can safely be removed through the normal combustion process.

If Phase Separation has occurred, consult the product Technical Data Sheet for recommended treatment ratios, then to make gasoline "street usable*" again, enough "fresh" gasoline has to be added to subject tank to make a 1:500 overall treatment of Phaser 3000®.



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Phaser 3000®

When used at the proper treat rate, see Technical Data Sheet (TDS) for more details, Phaser 3000® can prevent the following phenomenon:

- Phase Separation
- Hard Starting and Lack of Power
- Premature Filter Plugging
- Sludge and Varnish
- Excessive Water in Fuel*
- Premature Plug Fouling
- Fuel Storage Stability*
- Rust and Corrosion
- Undesired Disposal*

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