

# PRI-D REDUCES EMISSIONS

## PRI-D Cuts NOx, PM Emissions

**How PRI-D Reduces Emissions:** Extensive laboratory studies of diesel fuel behavior in combustion have established that during the second and third stages of combustion, a process called polymerization occurs.

During this process, large, high carbon weight molecular structures are formed. These structures do not fully burn, and form petroleum coke residue in the third combustion stage. This residue forms deposits on engine components, and is exhausted as particulate emissions.



The thermal stability chemistry of **PRI-D** blocks the polymerization process. The large carbon structures are not permitted to form. As a result, the fuel burns more completely. The amount of unburned residue is greatly diminished. PM Emissions are reduced. With more even combustion, peak combustion temperature is reduced, resulting in reductions of thermal NOx.

## CARB/EPA 13-Mode Emissions Test

<b>Parameter</b>	<b>Baseline</b>	<b>PRI-D Treated</b>	<b>% Change</b>
<i>HC (hydrocarbons)</i>	0.25	0.26	<b>(.04)</b>
<i>CO (carbon monoxide)</i>	1.17	1.13	<b>3.42</b>
<i>NOx (oxides of nitrogen)</i>	8.35	7.62	<b>8.74</b>
<i>PM particulates</i>	0.15	0.13	<b>13.33</b>
<i>Fuel Consumption</i>	148.90	141.80	<b>4.76</b>
<i>Average Horsepower</i>	141.90	142.40	<b>.03</b>