

TECHNICAL DATA SHEET



DEEP CLEAN GDI

PRODUCT # 11096

SINGLE USE 11 OZ AEROSOL CAN

Dirty engines have always been a problem, whether it's fuel system deposits, grime in the intake manifold, intake valve deposits (IVD), or carbon build-up in the combustion chamber. Dirty engines just don't run as well as clean engines. Why is it that there seems to be so much more talk about it today? The answer to that question is complicated and doesn't rest on a single cause, but one major change has been the method of fuel delivery.

In the "old days" cars had carburetors. Fuel was blended with air in the carburetor and traveled together the length of the intake manifold into the engine through the intake valves. In the 1980's carburetors were largely replaced with port fuel injection systems where gasoline was sprayed sequentially into each cylinder by injectors mounted in the intake manifold with the fuel spray aimed at the back side of each intake valve. In recent years a new method of fuel delivery is replacing port fuel injection. It is known by various names, but probably most commonly by Gasoline Direct Injection, or GDI for short. In this system the injector has moved from the intake manifold to the cylinder head. These are much higher-pressure systems with shorter injection intervals and more sophisticated computer control, but the thing most noteworthy is that the intake valves are no longer receiving the fuel spray; the fuel is being directly injected into the combustion chamber. This change has resulted in better fuel economy and more power, but there have been problems too. Probably the biggest problem is that the deposits that form on the intake valves are no longer being sprayed by fuel, so not only do they tend to accumulate more rapidly and harden, but fuel detergents can no longer effectively reduce that accumulation. That's true no matter where those detergents come from, whether in pump gasoline (e.g. Top Tier Gasoline) or by adding a retail fuel treatment to the fuel tank. The valves simply are no longer exposed to the fuel spray. Many owners of vehicles equipped with GDI have experienced engine hesitation, loss of power, increased emissions

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and even engine codes indicating misfires due to improperly sealing intake valves, a direct result of deposit accumulation. These symptoms can appear within the first 10,000 miles.

To address this problem, Lucas has developed Deep Clean GDI, an aerosol product that the average consumer can use to help clean the entire air intake system as well as the combustion chamber and turbo (if so equipped), including: the intake manifold, runners and ports and of course intake valves. Extensive testing has found that a single application can remove substantial amounts of IVD resulting in a better running engine with more power and improved fuel economy. Deep Clean GDI is also effective in vehicles equipped with conventional port fuel injection. How does Deep Clean GDI do it? It is a blend of effective solvents and fuel detergents that gets to places where tank additives can't reach. It is an easily applied product requiring a minimum of disassembly, easily accomplished by the average do-it-yourselfer. Note that Deep Clean GDI is not a throttle body cleaner. For the best one-two punch against dirty engines, Lucas recommends that our customers also treat their fuel with Deep Clean Fuel System Cleaner as a companion product, so that fuel injectors and the entire fuel system are also protected. Use both products every 10,000 miles to maintain top performance.



WARNING: This product can expose you to chemicals including ethylbenzene, which is known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov