

## Stanadyne Diesel Fuel Additives Addresses the Needs of ULSD



Stanadyne diesel fuel additives have been newly formulated to meet the requirements of Ultra Low Sulfur Diesel fuel (ULSD). The new fuel specification for ULSD – the first major change in diesel fuel specifications in North America since "Low Sulfur Diesel" was mandated in 1993 – is driven by emissions legislation that limits the sulfur content of diesel fuel to only 15ppm (parts per million). This is a 97% reduction from the current maximum level of 500ppm sulfur which was introduced nearly 13 years ago. The new ULSD fuel specification is legally required for all on-road diesel fuel by October 15th 2006 in the United States. Off-road diesel will follow.

The main reason for this change in sulfur content is to reduce the level of harmful emissions from diesel engines. Sulfur in diesel fuel can cause sulfuric acid in the exhaust which leads to pollution of the atmosphere, corrosion of exhaust parts, etc. Ultra low sulfur diesel fuel is necessary to enable the use of new efficient and clean burning diesel engines which run quieter, cleaner (smoke will also be reduced) and more efficiently.

However, the introduction of ULSD (sometimes also referred to as S15) is expected to affect diesel fuel injection systems on engines in much the same way as the introduction of Low Sulfur Diesel did in 1993-94, although probably not quite as severely. The biggest impact of ULSD is expected to be accelerated wear of highly sensitive fuel system components. In order to produce ULSD refineries use a process called severe hydro-treating which, while it removes the sulfur, also removes the natural lubricating properties of diesel fuel – which many fuel injection systems rely on to lubricate the pumps and injectors. In order to restore this lost lubricity, many diesel operators use fuel additives to help protect their sensitive systems and improve overall performance.

Stanadyne has been supplying diesel fuel additives for over 15 years, and continues to be a leader in diesel technology. With the introduction of ULSD, which requires changes to the chemistry of fuel additives, Stanadyne has taken the opportunity to upgrade its line of four diesel additive products to provide even more benefits to diesel users. The newly formulated line of Stanadyne retains the well-recognized brand names - **Performance Formula®**, **Performance Formula®**, **Lubricity Formula®** and **Winter 1000®** - while offering improved benefits and of course compatibility with the new ULSD fuel. New package labels, brochures, and other promotional material will feature a clear, common message that Stanadyne additives are formulated for ULSD. Stanadyne additives comply with all federal low sulfur requirements for use in diesel motor vehicles and non road engines.

Stanadyne Performance Formula<sup>®</sup> is the #1 seller in the Stanadyne additive line. It is a true multi-function all-season diesel additive, and as well as protecting against wear caused by ULSD, it also protects against cold weather, aids easier starting in hot weather, enables the engine to run smoother and quieter, helps remove water from fuel, increases power, improves MPG, cleans injectors, helps protect against fuel oxidization, and is the ONLY diesel fuel additive in the current market that is:

- Made by a fuel injection systems manufacturer; and
- \* Approved by diesel engine and vehicle OEMs; and
- Proven to perform best in independent tests.

Stanadyne diesel fuel additives are compatible with all types of fuel injection equipment including the latest generation high pressure common rail systems, as well as particulate traps and catalytic converters which are increasingly used on the latest technology diesel engines and vehicles.

The enhanced additive formulations have been announced to Stanadyne's dealer network, and will be officially launched in summer 2006 in advance of the legal introduction date for ULSD. For further information call 800-842-4587 or visit our website www.Stanadyne.com.



Simon Garner, Director of Sales and Marketing, Fluid Management Technologies Division of Stanadyne Corporation 4.06