

FAQ

1. **Q: What is Sasol turbodiesel™ ULS 10ppm?**

A: It is a new grade of diesel exclusively available from Sasol, which contains 10 parts per million of sulphur or less. The standard diesel grade available in South Africa is 500ppm with 50ppm being a second grade. *Sasol turbodiesel™ ULS 10ppm* complies with Clean Fuels 2 specifications for sulphur.

2. **Q: What is Clean Fuels 2?**

A: The South African Department of Energy (DoE) has introduced legislation that will see South Africa adopt even cleaner fuel specifications, largely based on the European Euro 5 specifications. This process is commonly referred to as the Clean Fuels 2 specifications or CF2 and will cover both petrol and diesel. One of the critical parameters that will be regulated is the fuel sulphur content. CF2 will come into effect by 2017.

3. **Q: Does Sasol turbodiesel™ ULS 10ppm meet all the proposed CF 2 requirements?**

A: *Sasol turbodiesel™ ULS 10ppm* will comply with the maximum allowable sulphur content of 10ppm and will meet and exceed the cetane requirement.

4. **Q: What other performance parameters does Sasol turbodiesel™ ULS 10ppm affect and how does it affect them?**

A1: *Sasol turbodiesel™ ULS 10ppm* is guaranteed to contain 10ppm sulphur or less and allows latest technology vehicles fitted with exhaust after treatment devices to operate freely in South Africa and will require less regeneration effort (less fuel consumed) to keep such devices in an active state and extend its service life. High sulphur levels in diesel can poison certain exhaust after treatment technologies and render them ineffective. This is especially true for diesel particulate filters (DPF's) and NOx catalyst systems. While these technologies to some extent can tolerate fuels of higher sulphur content such as 50ppm, it does come at a cost in terms of fuel consumption and overall durability.

A2: *Sasol turbodiesel™ ULS 10ppm* is designed with advanced detergency to keep the engine and fuel systems clean, thereby ensuring improved acceleration, improved fuel economy and optimum performance at all times.

Detergency is a key part of modern fuel additives and it has a dual purpose of keeping new engine components clean as well as cleaning up existing deposits. Deposits are carbonaceous build-up around and inside injector holes that could affect the flow of fuel and thereby robbing the engine of performance. The detergency additive will prevent such deposits from forming in the first place in case of a new engine, or in the case of an older engine where deposits have already manifested it will remove deposits over time and restore the injectors to its original condition, or very close to it.

A3: *Sasol turbodiesel™ ULS 10ppm* uses advanced lubricity improver technology to offer excellent lubrication protection to the fuel injection system.

The process of removing sulphur from diesel has the adverse effect of also removing polar compounds that impart a lubricity quality to diesel that allow diesel to lubricate diesel injection equipment in the absence of lubricating oil. This has led to ultra-low sulphur diesel being associated with "poor" lubricity, although this lubricity can quite easily be restored through the addition of lubricity improvers. Sasol has been using such lubricity improvers in its ultra-low sulphur diesel since the inception of producing diesel through its synthetic coal-to-liquids process, long before the rest of the developed world started to

remove sulphur from diesel. Sasol diesel conforms to and exceeds local SANS standards as well as international standards for lubricity.

A4: *Sasol turbodiesel™ ULS 10ppm* exceeds local standards for diesel Cetane which allows for easier cold starting and less engine noise.

5. **Q: Could the lubricity of the fuel be improved by adding two-stroke oil or other additives?**

A: No. *Sasol turbodiesel™ ULS 10ppm* is already formulated with a lubricity improver additive that meets or exceeds stringent industry requirements including the current SANS 342 specifications. Two-stroke oil and other additives have been proven not to have any added lubricity benefit when added to diesel. In fact, it could introduce metals which cause injector deposits which would be detrimental to the engine and overall performance.

6. **Q: Can I use *Sasol turbodiesel™ ULS 10ppm* for all my equipment - old and new?**

A: Yes. *Sasol turbodiesel™ ULS 10 ppm* is fully compliant with current SANS 342 requirements. It can therefore be used in older (including naturally aspirated or non-turbocharged) and new vehicles as well as all diesel powered plant equipment, including stationary machines.

7. **Q: What benefits will I get from switching my older equipment to *Sasol turbodiesel™ ULS 10*?**

A1: The ultra-low sulphur levels of *Sasol turbodiesel™ ULS 10ppm* result in a significant reduction in vehicle exhaust smoke.

A2: The superior keep-clean and clean-up performance of *Sasol turbodiesel™ ULS 10ppm* will keep the fuel system, especially the diesel injectors deposit free, ensuring optimum engine efficiency and operation.

A3: A cleaner fuel system in turn serves to ensure optimum engine efficiency and trouble-free operation, the results of which are improved fuel consumption as well as improved acceleration performance.

A4: *Sasol turbodiesel™ ULS 10ppm* has improved anti-foam performance, minimizing foam volume as well as collapsing any foam that might form very quickly. This results in quicker diesel dispensing as well as eliminating diesel spillages from the fuel filler hole.

A5: The diesel cetane value of *Sasol turbodiesel™ ULS 10* is higher than what the national diesel specification requires. A higher cetane makes engine operation smoother and cold starting easier.

8. **Q: Does Sasol provide technical backup for its products?**

A: All Sasol fuels products are fit-for-purpose guaranteed and technically backed up by a team of scientists and engineers operating from Sasol's world-class research and development facilities in and around South Africa.

9. **Q: How do I know that the diesel I am buying is *Sasol turbodiesel™ ULS 10ppm*?**

A: The product will be clearly labelled as such and will only be available from Sasol authorised outlets and is purple in colour.

10. **Q: Where is the new *Sasol turbodiesel™ ULS 10ppm* available?**

A: The product is available from selected Sasol Convenience Centres in Gauteng and Mpumalanga. For a full site list, see link below

11. **Q: If I fill my vehicle with a 50ppm or 500ppm diesel can I just switch over to *Sasol turbodiesel™ ULS 10ppm*?**

A: Yes. Fuels of different sulphur content can be mixed and adding *Sasol turbodiesel™ ULS 10ppm* mixes to an existing product will probably improve the quality of the resultant mixture. It must be noted though that the resultant mixture might result in a sulphur content higher than 10ppm.