

Pro-Strength Octane Booster

Nulon Pro Strength Octane Booster (PSO) is specifically formulated to increase the octane rating of petrol used in high-performance and competition engines. High-performance, high-compression engines require higher octane fuel than normal passenger cars. Using a fuel that does not have a sufficiently high octane rating causes the engine to detonate (ping), which in turn can cause severe engine damage.

Every engine has a minimum octane requirement (OR) that depends upon engine design, in particular compression ratio. The higher the compression ratio, higher the OR. If the petrol used does not have a sufficiently high Research Octane Number (RON) to cater for the engine's OR then detonation occurs. Detonation is the term used to describe the chemical breakdown of the fuel/air mixture which results in premature self-combustion during the compression stroke of the engine, i.e. the mixture explodes prior to ignition by the spark plug. Under these circumstances the force of the explosion is opposing the direction of piston travel, resulting in enormous loads. If detonation is allowed to continue, engine failure can occur. Nulon PSO substantially increases the RON of petrol, thus reducing the likelihood of detonation. Nulon PSO is compatible with all unleaded fuels including race fuel and Avgas.

It should be noted that the lower the RON of the base fuel, the greater the increase after the treatment. Conversely, high RON base fuel yields a much lower increase after treatment. This phenomenon applies to all octane enhancers.

Many high-performance modern engines are fitted with "knock sensors" that recognise the moment detonation commences and retard the ignition timing to stop further damaging detonation. However, while retarding the ignition timing protects the engine from damage, it robs the engine of performance and efficiency. Adding Nulon PSO at the correct ratio stops this whole cycle and promotes maximum performance and efficiency without risk of damage.

Many cars imported into Australia have to constantly operate on premium unleaded petrol (PULP) of 95 RON or higher, but in remote areas of Australia, PULP is unavailable. However, Nulon PSO effectively converts regular unleaded fuel to PULP when treated according to the directions. Strict testing of Nulon PSO ensures that no component will have a detrimental effect on any engine or fuel system part. All components have been tested for millions of kilometres.

Benefits:

- Boosts octane by up to 7 RON (70 points)
- Gain peak performance & acceleration
- Obtain maximum horsepower
- Prevents engine damage caused by detonation
- Suitable for all petrol vehicles
- Safe for catalytic converters & oxygen sensors

Indicative RON increases:

91.6 Unleaded	+PSO = 97.0	(5.4 RON increase)
95 PULP	+PSO = 98.1	(3.1 RON increase)
98.1 PULP	+PSO = 100.4	(2.3 RON increase)
106.7 Avgas	+PSO = 108.4	(1.7 RON increase)

(When used at the maximum recommended treat rate.)

Low RON Fuel

Even though fuel purchased today is sold at a minimum of 91 RON, fuel RON can vary between batches throughout Australia. Without testing the RON rating of the fuel will not be known when filling a vehicle until the car begins to PING or Detonate due to the lower than required RON rating. By adding Nulon PSO it will ensure the fuel exceeds the minimum demand of the engine.

Directions for Use:

Do not expose PSO fluid to direct sunlight. Exposure to direct sunlight will destroy the benefits of the product in a matter of minutes.

To boost octane add one 500ml bottle to 60 litres (i.e. 8.3ml/ litre of fuel) of petrol. Add directly to the tank prior to filling. Experiment with lower doses to establish the optimum treat rate to stop detonation. Use with each tank full.

First Aid:

For advice, contact a Poisons Information Centre (Phone e.g. Australia 131 126; New Zealand 0800 764 766) or a doctor (at once). If swallowed, do NOT induce vomiting. If in eyes, hold eyelids apart and flush the eye continuously with running water. If skin contact occurs, flush with running water.

Packaging:

500 ml bottles (12 bottles per carton) **Part No:** PSO
4 litre single units **Part No:** PSO-4



NULON 

Australia's Own

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