

# Lead Substitute Valve Saver

Nulon Lead Substitute (LS) makes unleaded petrol (ULP) safe for use in all vehicles that were designed to operate on leaded petrol (pre-1986 in Australia). LS is also formulated to provide maximum protection for LPG engines when added to under – bonnet lubricator kits.

## For use with petrol engines:

LS uses the latest and safest potassium technology to provide unsurpassed valve and valve seat protection. Nulon LS can also be used in unleaded vehicles where additional upper cylinder lubrication is required. LS is safe to use in all brands of ULP and PULP (premium unleaded petrol) fuelled engines with cast iron cylinder heads for an indefinite period of time to avoid costly cylinder head modifications. Nulon Lead Substitute has been tested to, and passed, the stringent and demanding requirements of Australian Standard AS4430.1-1996 "Engines designed for leaded petrol to operate on unleaded petrol".

There are numerous products on the market that claim to provide protection that will allow engines designed to run on leaded petrol to run on unleaded petrol. The above Australian Standard is to protect consumers. So, beware of any similar product that has not been tested to, and passed, the requirements of the standard.

For vehicles sold in Australia prior to 1986 there is no fuel available now that will provide valve seat protection for these pre 1986 engines.

## For use in LPG fuelled engines:

LPG enters the combustion chamber of an engine as a completely dry fuel. As a result it burns very much hotter than does petrol, which enters the combustion chamber as air and very fine droplets of petrol. The petrol droplets provide a cooling affect. The increased operating temperature in the upper cylinder area of an LPG engine is very harsh on valves, valve seats and valve guides.

Nulon LS is ready for use in under-bonnet lubricator kits. If the lubricator kit is adjusted correctly 1 litre of LS should last fro 7,000 to 10,000km.

Nulon LS is cost effective, has been tested and proven to protect valves and valve seats in harsh operating conditions and, more importantly, will be around for a long time to come. Nulon LS puts the consumer in control of what goes into the fuel system of their beloved old car, or LPG powered engine.

## Packaging:

500 ml bottle (12 bottles/carton) \* Part No: LS500  
1 litre bottle (6 bottles/carton) \* Part No: LS1

## Tested (Results on file)

Test	Result
Opel Kadet Valve Seat Recession Test	Completely halted valve seat recession
M102E Intake Valve Deposit Test	Minimal deposit formation
Peugeot 205 GTi Injector Cleanliness Test	No adverse effect
Catalyst Durability Test	Within legislation limits
28 Car Field Test	Lower inlet valve deposits Lower combustion chamber deposits
Turbine Blade Cleanliness Test	No adverse effect on turbine deposits, or turbo-charger function

## Benefits:

- Reduces valve seat burning & wear
- Helps lubricate top piston rings
- Prevents valve seat recession (VSR)
- Helps clean upper cylinder deposits
- Provides better valve sealing
- Cost-effective solution for classic car owners
- Helps dissipate high temperature from exhaust valves
- Safe for use with catalytic converters or oxygen sensors

**Note:** Most pre-1986 vehicles were designed to run on leaded petrol with an octane rating of 97 RON. Such vehicles will need to use PULP with Nulon LS. Low compression engines may well be able to use normal unleaded petrol plus Nulon LS (if the engine pings with unleaded, switch to PULP).

## Directions for Use in petrol engines::

Simply add to petrol tank at the rate of 1ml of LS per litre of petrol. For towing, racing or to exceed AS4430.1-1996 add 2 mls per litre of fuel.

## Directions for use in LPG engines:

Add to under-bonnet lubricator kit reservoir. Adjust needle valve to allow 1 drop every 10 seconds at 2,000 rpm.

