

Questions & Answers

for

Envirosave Metal Treatment (ESMT)

1. What is ESMT, what does it do?

Answer: ESMT is not like any product you have read or heard about, it is not a repetitive use oil additive or oil treatment! ESMT is a **ONE TIME** Metal Treatment that performs a function that no oil, no oil additive or oil treatment can perform. Numerous Mechanical & Lubrication Engineers have performed their due diligence on ESMT and stated “**ES has no competitors.**” They confirmed the difference between additives, the benefits and the scientific fact that oil sample analysis programs provide indisputable confirmation that wear / friction have been reduced. A reduction in wear / friction confirms longer component life, less energy required (fuel & electricity), as well as many other benefits ESMT provides to reduce operating costs.

There are only 2 ways to reduce friction, drag & wear metal rates in lubricated mechanical components:

- 1) **Use better lubricants**
- 2) **Make the bearing surfaces smoother = Enviro-Save Metal Treatment**

ESMT makes all bearing surfaces smoother with one application for the life of any component such as; engines, transmissions, differentials, power-steering, wheel bearing oil hubs and hydraulic systems etc. Scientific oil sample analysis reports have always confirmed a conservative wear metal reduction average of 50% since 1990 after using ESMT once.

What is the dollar savings from reducing friction, drag and wear by 50%+ on every bearing surface in your equipment, vehicles or trucks - doubling life?

Fact: Saving fuel by reducing drag, friction & metal wear is common sense.

Return On Investment (ROI) into the 1000's % percent has been confirmed since 1990 in the commercial trucking & bus industry, light & heavy-duty equipment industry, automotive and many other proven applications. ESMT has more positive proven performance documentation than any other product!

One Time capital expense that significantly increases your bottom line!

2. How much of an increase in fuel economy will I get?

Answer: Fuel savings are affected by many factors and variables such as condition of the engine before treatment, driver habits, road and weather condition, loads etc. Since 1990 users of ESMT have reported average common fuel savings of: **Automotive 10% to 15% and Semi trucks – buses – coaches and heavy equipment 6% to 9%** and many customers report higher percentages.

If the operator of the piece of equipment or vehicle uses the extra horsepower ESMT frees up by reducing friction, they may not realize any fuel economy at all ie: Race drivers experience quicker times, more HP and appreciate the increase in component life, many have stated ESMT has cut their racing costs by 50%.

Today's computerized fuel consumption recordings are normally accurate, more so than a few years ago, but it is always the best to record fuel used and mileage travelled in writing to confirm changes.

3. How long does ESMT last?

Answer: Indefinitely, once the resin permanently impregnates the rough bearing surface asperities it becomes an integral part of those surfaces. In properly treated engines and all other mechanical components, all bearing surfaces become smoother and friction and wear are drastically reduced. One (1) application of ESMT normally doubles or triples component life and the ROI (Return On Investment) is in the 1000's %, percent.

The benefits of ESMT are NOT lost no matter how many times your oil is changed, which is scientifically confirmed with before and after treatment oil sample analysis reports.

This is completely unlike repeatable use "OIL ADDITIVES" which are supposed to increase the lubricity of the oil and whose benefits are lost with an oil change.

4. Will ESMT void my warranty?

Answer: NO! THE ADDITION OF ESMT TO ANY ENGINE OR MECHANICAL COMPONENT WILL NOT VOID THE WARRANTY.

It is incumbent on the equipment manufacturer to prove a particular product did damage to an engine or component. If proven, then the warranty could be voided, however, there is nothing in ESMT to damage an engine or component when properly used.

Warranty is there to protect the manufacturer and not the consumer and if you are ever told ESMT will void warranty, ask that person to state that in a letter, on company letterhead and then get the letter to us for a reward.

We have letters on file from Caterpillar, Cummins, Detroit Diesel and Allison Automatic Transmissions stating ESMT will not void their warranty.

5. How long will ESMT extend the life of my engine or components?

Answer: Since 1990 and 100,000's of treatments we can state that one application of ESMT normally doubles engine and component life, some applications it is common to increase normal life beyond double.

Scientific oil sample analysis reports are the ultimate method of confirming reductions in the various wear metals and consistently show wear metal rates are reduced by a conservative average of 50% and often more. It is not uncommon to hear about engines with double or triple the normal life.

6. Do I use ESMT every time I change my oil?

Answer: NO! ESMT is a **ONE TIME** treatment into the bearing surfaces for the life of the engine or component and the impregnated resin into those bearing surfaces remains forever. Again, this can be confirmed by scientific oil sample analysis reports every time.

ESMT is NOT an every time treatment to the oil when changing oil, use ESMT one time and enjoy the money savings forever.

7. Does the oil have to be changed before treatment?

Answer: No problem with gasoline engines up to half time or miles / KMS on an oil change, if the oil is clean. Older high mileage engines need an oil change prior to using ESMT, recommended due to the tremendous cleansing action ESMT provides. If the oil is already dirty, then an oil change is best.

Do not change diesel engine oil before using Enviro Save Diesel Engine Pre-Treatment Cleaner prior to an oil change and using ESMT.

8. Can I install the ESMT myself?

Answer: Yes, if you service your own vehicles or are mechanically savvy with all the component lubricant filler plugs it is easy. Simply invert containers, shake well, screw installation hose on bottle and pour into component. If component is full and oil runs out, the easiest is to drive one side of vehicle up on a block or curb so the oil is down enough for the small amount of ESMT. Newer automatic transmission that do not have a dipstick or filler tube may require product to be installed by a lube shop that have the special tools.

9. How do I know how much product to use?

Answer: ESMT requirements are based on the bearing surface area, not on oil capacity like oil additives, although often the oil capacity is indicative of the bearing surface area and we know what works since 1990.

10. How long do I leave the ESMT in before changing my oil?

Answer: Continue until next scheduled oil change or at least 1000 miles (1600 kms) in the case of automotive type vehicles, the equivalent in hours if stationary or heavy equipment. The time or mileage recommendations allow time for the ESMT resin to be permanently impregnated into the rough surface asperity of bearings, making all the bearing surfaces smoother.

At this point, if the oil is very dirty, change it. If not, you may continue until your next regularly scheduled oil change. Any resin that is unused will be drained out with the dirty oil.

Note: The ESMT resin impregnation will not change tolerances, clearances or replace worn away metals.

11. Why do I put ESMT in the fuel tank and is it the same product?

Answer: The special fuel tank formulations provide many benefits to fuel pumps, injectors and cylinder top end area. It thoroughly cleans injectors so the fuel spray pattern is perfect for optimum fuel efficiency and the resin protection increases the life of pumps and injectors, even when water or the wrong fuel is used. The fuel tank treatment increases fuel mileage, reduces pollution, engines run smoother and deliver more horse power.

12. Can ESMT harm my engine?

Answer: No, there is nothing in ESMT that will cause harm when used as directed by the manufacturer's treatment instructions. ESMT only cleans the engine of the sludge, varnish, carbon, etc. and the inert impregnated resin will not cause harm.

ONLY THE PERSON TREATING THE ENGINE OR PIECE OF EQUIPMENT CAN CAUSE A PROBLEM BY NOT FOLLOWING TREATMENT INSTRUCTIONS!

We have NOT had one (1) damage claim since 1990.

13. Does ESMT have a guarantee?

Answer: Yes! ESMT is Guaranteed to reduce wear metal rates in all engines and all lubricated mechanical components. Whenever ESMT is used as instructed by the manufacturer there is always a reduction in metal bearing surface wear rates.

Before and after ESMT scientific oil sample analysis will always show a reduction in metal bearing surface wear rates – Guaranteed.

Friction causes wear, prove wear has been reduced = Less friction = Less wear = Longer life = More HP = Less fuel or electric energy = Lower operating temperatures = Reduced costs and a Guaranteed Return On Investment like no other product can provide!

Should you have any concerns or additional questions of whatsoever nature, please do not hesitate to call or contact our technical department or leave a message and we will get right back to you.

14. What about the “ME TOO” products?

Answer: There are many lubricant aftermarket products being marketed and a very high percentage of them are simply repetitive use oil additives and oil treatments. Most are detrimental to longevity over time due to corrosive chemical ingredients, which can damage oils, and yet state their products stop wear / friction, which is absolutely untrue and a false statement. **No oil or lubricating product on the market stops wear / friction** and scientific oil sample analysis confirm this fact, otherwise all metal wear rates would be 0 (zero). This is why it is extremely rare to find an oil or oil additive company that provides oil sample analysis reports to confirm their product performance claims regarding less metal wear.

Unlike the above, ESMT performance claims, factual wear / friction reductions and performance history are built on scientific oil sample analysis results. ESMT is totally different (apples & oranges) from any of those products in numerous ways. ESMT is a one - time treatment, one – time application and one – time expense that produces a life time of savings and performance benefits.

- a. Unlike any other, ESMT has a tremendous amount of documented factual evidence supporting its effectiveness with very consistent results from 1990 to this day. ESMT’s long and successful history would leave one hard pressed to find a dissatisfied user.
- b. Again, it is important to remember that ESMT is a ONE-TIME metal treatment, not an oil additive. ESMT only uses oils and fuels to carry the treatment to the bearing surfaces to make bearing surfaces smoother, smoother surfaces = less friction = longer life = reduced costs & less fuel.
- c. No other product has an ROI (**R**eturn **O**n **I**nterest) like ESMT, the ROI goes into the 1000’s of percent.
- d. ESMT also treats the cylinder top-end of the engine through the fuel (diesel or gasoline), or through the air intake system with gaseous fuels.
- e. ESMT has formulations to be used externally on firearms, snow skis, snowmobiles, boat hulls, airplane fuselages, sliding aluminum rails on patio doors, and many more applications).

Part of ESMT’s process is cleansing, which restores engine cylinder performance, and no surface can be impregnated with resin if the surface asperity is filled with substances.

15. Can I split a large container of ESMT to treat several smaller engines?

Answer: YES...provided you consider the following risks: pilferage, spillage, improper measurements, contamination and most importantly how long without agitating to keep the resin evenly dispersed.

We suggest that a person purchase the recommended amount required to treat a specific engine or component. Inexact measuring can result in under-treated or over-treated equipment resulting in wasted money.

16. Is it possible to overtreat?

Answer: No/Yes...You can put a treatment of ESMT in an engine every month if you follow treatment instructions for the precise engine or component. Once the resin impregnation process has been completed and the rough asperity of the bearing surfaces are filled to the peaks, no more resin will be used and therefore you will be wasting money.

17. Can I use ESMT in 2 - Stroke gasoline engines?

Answer: Yes, ESMT 2 - Stroke Treatment lubrication factor is very beneficial to engine longevity, common to extend life 2 to 3 times with higher RPM, more HP and fuel savings. Engine manufactures changed 2 – Stroke engine lubrication methods from; 1) traditional mix of 2 – Stroke oil and gasoline ratio, and 2) engines with engine lubricating oil injected directly to the crankshaft bearings and the gasoline is injected directly into the cylinders. We now have 2 (two) ESMT 2 – Stroke engine formulations; the traditional that goes into the gasoline / mix oil and the new formulation which has 20ml vials of crankcase oil and a bottle of the traditional for the gasoline tank to treat injectors, pump and engine top-end.

18. Will ESMT stop an engine from burning oil?

Answer: With abundance of success in reducing oil consumption since 1990 the answer to this question is “yes” or a qualified “maybe”. ESMT will reduce oil consumption if the problem is caused by sticking rings, which is caused by deposits of varnish, lacquer and carbon on the piston rings and ring lands (grooves), which slows down or stops ring action. This is the most common cause for oil consumption and can usually be solved with ESMT. However, excessive oil consumption can have several other causes that cannot be solved with ESMT, such as; wrong oil, external leakage, damaged gaskets or seals (especially valve seals), worn out or overheated piston rings and cylinders.

19. How can ESMT be added to the engine crankcase on top of the full mark?

Answer: ESMT does not replace any oil and 70% of the ESMT liquid is a cleaning complex that will dissipate over a couple hours of operating the engine. The remaining 30% of the liquid is a different cleaner that continues internal cleaning until the next oil change. We have been treating engines this way since 1990 without any negative issues.

20. Why didn't I notice much difference in my new engine?

Answer: New engines operate at perfect peak performance and with an engine running at optimum it can be difficult to notice changes after ESMT without sophisticated measuring devices; like a Dynamometer to confirm the increase in HP and oil sample analysis to confirm wear metal reductions. Most notice more power, smoother, quieter and less fuel consumption. In high mileage engines with deteriorated performance, changes will be much more dramatic and easily noticed. Most people who drive a brand-new vehicle are not familiar enough with it to detect change.

21. Does ESMT deteriorate from high temperatures or acids in engines?

Answer: NO, the ESMT resin is inert and resistant to all chemicals and acids in engines and components. The resin will withstand continuous operating temperatures much higher than those present in an engine and oil sample analysis confirm the resin remains in the metal surfaces, otherwise the engine cylinder metal wear rates would increase back to before ESMT.

22. Is it safe to increase the mileage or hours on my normal oil change interval?

Answer: Yes, a scientific oil sample analysis report will precisely confirm the condition of your oil and when it needs to be changed. Oil doesn't wear out; it gets contaminated and the additive package in oils will deplete over time. Truck, marine and HD equipment customers of ESMT who utilize an oil sample analysis program to determine when to change oils normally increase oil change intervals by 50% to double and sometimes more. Oil change intervals recommended by manufacturers are normally premature due to the oil still being clean and it does not have a strong gasoline or diesel odour. After using ESMT most customers notice their oil is much cleaner compared to before and automatically go longer between oil changes. The unique characteristics of the ESMT inert resin provides excellent bearing surface protection against all accumulated acids, and corrosion from moisture.

23. Should I use ESMT even though my mechanic doesn't recommend it?

Answer: Yes, mechanics only know what they have learned or been taught and a high percentage of the knowledge or mechanical curriculum in schools and colleges is directly or indirectly provided by manufacturers and or oil companies. ESMT doubles or triples component life and manufacturers are not interested in extending life and reducing their very lucrative parts business profits, and oil companies are not interested in reducing fuel and oil consumption, otherwise they would be recommending any item that reduces operating costs. Unfortunately, today a significant percentage of mechanics do not possess scientific Oil Sample Analysis knowledge, which is the ultimate method of proving a reduction in metal wear rates of the various metals used in engines and all other lubricated mechanical components. Confirming a reduction in metal wear rates automatically proves ESMT has reduced friction and drag. Due to all the "oil additives" that were or are on the market that do not work or reduce metal wear, it is very important to inform your mechanic that ESMT is totally different – its "Apples & Oranges." Its performance proven with before and after oil sample analysis, used once no matter how many times you change oil and 1 application is all that is required for the life of any engine or vehicle. Tell your mechanic ESMT will keep your vehicle on the road, avoiding the purchase of a new one, and you will continue to have them do your maintenance and repairs. If they resist and you are fond of them but can't do the ESMT yourself, then have another service shop install your ESMT.