

WHAT IS MILITEC-1?

MILITEC-1 is a clear golden synthetic liquid resembling an SAE 10-weight oil. When **MILITEC-1** is added to the primary lubricant of any machine, it will **increase operating efficiency, extend equipment life, reduce down-time and cut unscheduled maintenance.**

Even though **MILITEC-1** is added to the oil, it is **not** an oil additive. **MILITEC-1** contains no viscosity enhancers or other oil augmentation compounds. It does not modify the primary lubricant in any way.

Instead, **MILITEC-1** is a **metal conditioner**. **MILITEC-1** simply uses the circulating oil as a means to reach the critical hot spots and metallic friction surfaces within the machinery. When the oil carries **MILITEC-1** to these areas, **MILITEC-1** exits the oil, leaving the oil completely unaffected and unchanged.

WHERE IS MILITEC-1 USED?

MILITEC-1 can be used in all types of machinery. Typical uses include both two- and four-cycle Diesel and gasoline engines of all sizes; automotive and industrial transmissions and differentials; compressors of all types including refrigeration; assembly line speed reduction gears; electric motors; pumps; etc. It is also an excellent cutting fluid for the most difficult lathe and mill work.

From Nuclear powered subs to dental drills, rock crushers to bicycles, air conditioners to sewing machines, **MILITEC-1** literally works anywhere two pieces of metal rub together.

HOW DOES MILITEC-1 WORK?

When **MILITEC-1** is applied to a metal surface, it chemically reacts with, and is adsorbed by, the metal. The chemical reaction takes place at temperatures between 100°F and 150°F (38°C - 66°C) depending on friction and load conditions. The effect of the chemical reaction is a stiffening (not hardening) of the metal surface -- approximately *seventeen times* stiffer when the reaction is complete. The increased stiffness dramatically reduces friction and parasitic drag, just as when an underinflated tire is pumped up.

Reduced friction yields many benefits:

- Wear rates are greatly reduced. **MILITEC-1 treated machines last longer.**
- Lubricating oil becomes more effective and efficient. Piston rings seal better against cylinder walls for better compression and reduced tailpipe emissions. Bearings spin more freely. Gears mesh more effortlessly. **MILITEC-1 treated machines run cleaner and use less energy to do the same work.**
 - Less heat is generated in the moving parts. **MILITEC-1 treated machines run cooler.**

Additionally, the bond between **MILITEC-1** and metal is remarkably durable. **MILITEC-1-treated machines are protected and will retain adequate lubrication for extended periods in extreme out-of-parameter temperature variations, or even if the primary lubricant is completely lost.**

WHAT'S IN MILITEC-1?

MILITEC-1 is a chemically-reacted synthetic-based hydrocarbon derivative. At the start of the manufacturing process, **MILITEC-1** is composed of a blend of several extreme pressure lubricants, natural anti-corrosion ingredients, extremely stable chlorate esters, anti-wear components, and anti-oxidant compounds. This blend is then introduced into a chemical reactor. When **MILITEC-1** emerges from our proprietary chemical reaction process, it is no longer a blend. It has been organically bound into a unique, pure, uniform single substance. In its finished form, **MILITEC-1** is completely stable, so it does not require agitation before use.

Just as important as knowing what's **in MILITEC-1** is knowing what **isn't**. **MILITEC-1** does **not** contain chlorinated paraffins, PTFE, fluorine, solvents, carrier oils, viscosity enhancers, metals, molybdenum disulfide,

zinc, sulfur, graphite powders or other solids. It's also important to realize that **MILITEC-1** is non-hazardous, non-toxic, and non-combustible. It is so safe that **MILITEC-1** was even approved environmentally by the U.S. Navy Medical Command for use aboard nuclear-powered submarines.

BENEFITS OF MILITEC-1

- Reduction of harmful tailpipe emissions in all gasoline, Diesel and two cycle engines
 - Twenty-four hour lubrication to all metal surfaces
 - Reduced operating temperatures at all metal friction points
 - Increased power using the same energy
 - Reduced oxidation, thermal decomposition, corrosion and wear
 - Greater efficiency in electric motors, alternators and generators
- Less energy required in engine start-ups, regardless of weather conditions
 - Does not adversely affect the viscosity of the primary lubricant
- Long lasting -- Remains bonded to metal surfaces even after several oil changes
- Protects for extended periods even if primary lubricant is lost, or is contaminated by fuel, anti-freeze or combustion by-products
- Reduces material build-up. Contaminants and wear metals cannot cement themselves to **MILITEC-1**-protected surfaces.

OIL WITHOUT MILITEC-1

Standard automotive and industrial oils lubricate by constantly bathing and coating load-bearing surfaces to maintain an adequate film thickness. Frictional force and the resultant heat produce a condition in which a film of oil several molecules thick is adsorbed onto the rotational surfaces through physical (not chemical) attraction. This film is non-impregnating, and provides lubrication to the metal parts only when the oil is in constant circulation.

If there is a lack of constant lubrication for any reason, there is greatly increased stress at the asperity interaction surface areas. When this happens, these crucial contact areas are unprotected and experience maximum wear rates.

This condition is extremely critical during both hot and cold starts, since much or all of the oil has drained away, and in extreme operating conditions that will push the oil to the limits of its ability to lubricate. Under these circumstances, oil without **MILITEC-1** may allow excessive wear to occur.

MILITEC-1, on the other hand, is bonded into the metal so it cannot drain away when the machine is turned off, or get squeezed out during extreme operating conditions. **MILITEC-1** provides constant lubrication.

Industrial and automotive oils also attract contaminants and hold them in fluid suspension. Interactions between these contaminants and the oil form a grease-like compound that cements itself to the metal and becomes lodged inside finely machined parts. This reduces the free flow of oil through oil passages and galleries and increases friction, heat and oxidation. The result is greater wear and increased maintenance.

When **MILITEC-1** bonds within the metal, the surface is constantly lubricated and strengthened. This shields the surface so sludge, insoluble gums, lacquers, varnish, corrosive acidic compounds and other contaminants and wear metals cannot attack and cement themselves to the innards of the machinery.

SUMMARY

MILITEC-1 improves efficiency, extends equipment life, reduces down-time and helps to protect against unscheduled maintenance. **MILITEC-1 will improve your "bottom line"** by reducing energy usage, reducing maintenance costs, and reducing capital equipment replacement.