Red Line Synthetic ShockProof™ Gear Oil provides unequalled protection for high-performance differentials and transmissions which are heavily loaded or which see shock-loading. This revolutionary lubricant is completely different from conventional lubricant technology in several ways. The viscosity characteristics are significantly improved. Gear teeth need high viscosity at high temperatures to prevent metal-to-metal contact and a low viscosity when cold to reduce fluid friction. The ShockProof™ chemistry significantly reduces the thinning effect of high-temperatures. The Heavy can be rated as a 75W250 Gear Oil, but has the lower internal fluid friction of an SAE 75W90. The LightWeight can be rated as a 75W140 Gear Oil, but has the lower internal fluid friction of an SAE 30 motor oil. The SuperLight can be rated as a 70W90 Gear Oil, but has the lower internal fluid friction of an ATF. These ShockProof™ lubricants provide much greater viscosity in the thin layers between the gear teeth, but have very low internal fluid friction, which means very little power loss for the protection achieved. ShockProof™ Gear Oil has a 40% lower coefficient of friction and 250% the load-carrying capacity compared to conventional gear oils, which means that metal-to-metal friction is greatly reduced. Temperature reductions between 25°F - 75°F are common in circle track, road racing, and off-road racing. Improved durability in high-performance use is the primary benefit of the Heavy ShockProof™ and along with the improved durability is an improvement in efficiency, but if further improvements in efficiency are desired, and durability is not a major concern, LightWeight and SuperLight ShockProof™ can be used. The cushioning effect of the ShockProof™ chemistry allows the use of one of the lighter viscosities in many performance applications with little sacrifice in durability. Red Line ShockProof™ can be used in conventional, limited-slip, or locker differentials. Red Line ShockProof™ is designed for use in competition differentials and transmissions.

The above graphs display the unique performance characteristics of the Red Line ShockProof chemistry. The wear is one-tenth that of a petroleum product at moderate loads, the coefficient of friction is nearly half. The most significant improvement comes with the ability to operate in extreme pressure regions with nearly three-times the load which can be handled with a conventional petroleum gear oil and the wear obtained is significantly lower at all pressures. Note how the Red Line Synthetic 75W90 Gear Oil is a significant improvement to the petroleum gear lubricants (most other synthetics are not significantly better than their petroleum counter-parts.) All ShockProof™ viscosity grades will provide similar metal-on-metal load-carrying capabilities, the higher viscosities will resist squeeze out better than the lower viscosities.

The benefits of ShockProof™ Gear Oil are:

- Greatest extreme-pressure protection
- Lowest coefficient of friction available
- Reduces temperatures dramatically
- Provides thicker oil films between gear teeth
- Completely resists throw-off

- Reduces metal-to-metal contact
- Compatible with petroleums and synthetics
- Low fluid friction to improve power transfer
- Provides gear teeth shock loading protection
- Reduces gear noise