BG Products, Inc.

Product Specification and Technical Data

PRODUCT: **BG Ultra-Guard™**

PART NO.: **750**

TEST DATA:

Test	ASTM Test Method	Typical Test Results
Specific Gravity @ 15.6°C (60°F)	D 1298	0.8653
API Gravity @ 15.6°C (60°F)	D 287	32.0
Density, U.S. lbs./gal/ @ 15.6°C (60°F)	D 1250	7.214
Viscosity, cSt @ 40°C (104°F)	D 445	99.11
Viscosity, cSt @ 100°C (212°F)	D 445	14.53
Viscosity Index	D 2270	152
Viscosity, cP @ –40°C (–40°F)	D 2983	107,200
Pour Point	D 97	–41°C (–°F)
Flash Point, COC	D 92	197°C (387°F)
Copper Strip Corrosion 150°C (302°F)	D 130	1b
Color	Visual	Fluorescent Yellow

PROBLEM: The hypoid gear set design, used in many rear end axle sets, demands that a high level of extreme pressure additive be utilized for long life performance of the ring gear and pinion. This type of lubricant meets API GL-5 performance standards. The high level of extreme pressure additive in a GL-5 type product has always been extremely "active" or, in some instances, even "aggressive" toward yellow metals utilized in many standard transmissions or transfer cases. Therefore, several major Original Equipment Manufacturers would not accept the use of a GL-5 product in transmission or transfer cases. They typically use GL-4 gear oils, engine oils and even automatic transmission fluids for lubricating these transmissions and other gear sets.

SOLUTION: BG Ultra-Guard™ Full Synthetic Gear Lubricant provides the ultimate protection for drive line components. It is a full synthetic API GL-5 rated gear lubricant blended to SAE 75W-90 viscosity to perform in extreme heat and arctic conditions. BG Ultra-Guard™ is formulated for increased thermal stability, improved seal performance, quieter operation and unsurpassed protection against wear, pitting and corrosion. Results from the extended length (300 hours) L-60 gear test demonstrate that BG Ultra-Guard™ offers unmatched protection compared to other gear lubricants.

USAGE: Follow equipment manufacturer's service recommendations. Keep gearbox full. Excellent on-road, off-road and marine lubricant. For limited slip applications, BG LSII, Part No. 328, must be added at a 10% treat ratio.

continued on page 2

BENEFITS: BG Ultra-Guard™ outperforms any existing product and brings significant benefits to the full market range of gear lubricants:

- Thermal stability
- Smoother gear shifting
- Optimum drive line efficiency
- Lower operating temperatures
- Quieter operation
- Protects against wear, pitting and corrosion
- Seal compatibility and improved seal performance
- Improved fuel efficiency
- Reduced maintenance
- Long drain life
- Clean components and extended component life
- Application versatility
- Reduced risk of misapplication
- UV tracer dye to aid in leak detection

TEST RESULTS: BG Ultra-Guard™ has passed more than 30 grueling tests. The L-60 Test determines the deterioration of gear lubricants under severe thermal oxidation conditions. This test is part of the GL-5 qualifying procedure. The sample of gear oil being tested is placed in a gear box with two spur gears and a bearing, operating under load. The oil is heated and held at 162°C (325°F) while bubbling air through the hot oil for 50 hours. To pass the test, the following criteria must be met:

- The oil must not increase in viscosity over 100%.
- Pentane insolubles must stay under 3%.
- Toluene insolubles must stay under 2%.
- Carbon and varnish rating on the gears must be at least 7.5 (perfectly clean is 10.0).
- Sludge rating on the gears must be at least 9.4 (perfectly clean is 10.0).

BG Ultra-Guard™ passed the 50-hour test. It was then subjected to a 300-hour L-60 Test, which is six times the duration of the regular 50-hour severe thermal oxidation stability test. The results are as follows:

- Viscosity increase of only 60.6%.
- Pentane insolubles of 0.38%.
- Toluene insolubles of 0.16%.
- Carbon and varnish rating of 8.0.
- Sludge rating of 9.49.

BG Products, Inc., accepts no liability for excessive use or misuse of this product.