Esso Imperial Oil

Product Data Sheet

UNITOL

PREMIUM QUALITY MULTI-USE AUTOMOTIVE GREASE

June 2003

UNITOL premium industrial and automotive grease offers the following features and benefits:

- **Multi-purpose applications in all types of industrial bearings, gears & couplings and in automotive wheel bearings and chassis**
- **Excellent high- and low-temperature performance**
- **Extreme-pressure and anti-wear properties**
- **Long service life UNITOL is the brand name for a superior-quality multi-purpose grease**

Primary Applications

UNITOL grease is available only in an NLGI Grade 2. This grade is recommended for application by hand packing or by grease gun. It should not be used in centralized lubrication systems having long feeder lines unless these systems are designed to handle a Grade 2 consistency grease. Should an NLGI Grade 1 be required, UNIREX EP 1 grease is recommended.

Industrial

The versatility and wide availability of UNITOL grease make it a practical choice for use as an industrial grease. It can be used in all types of machinery, in almost any industry where a multi-purpose, water-resistant EP grease is required. This includes the lubrication of bearings of all kinds, couplings, and gears. Because of its versatility, fewer greases are needed and there is less chance of applying the wrong lubricant.

UNITOL grease may be used in electric motors of the NEMA (National Electric Manufacturers Association) Insulation Class A and B types. These classifications define maximum operating temperatures of the motors. Relubrication intervals should be based primarily on those recommended by the motor manufacturer, but if this information is not available, the intervals in the following table are suggested.

Automotive

UNITOL grease is the first choice for all automotive grease applications, including those on trucks, buses, and construction equipment.

UNITOL grease is an excellent wheel bearing grease that withstands the high temperatures generated during severe braking with disc brakes. The high thermal stability of the grease enables it to provide trouble-free lubrication over extended periods.

UNITOL grease is also an ideal lubricant for ball joints. The key requirements in ball joint lubrication — minimum wear, minimum torque, and protection against the effect of water contamination — are easily met by this grease. UNITOL grease meets the requirements of ASTM D 4950, and NLGI GC-LB for chassis and wheel bearing lubrication. It can also be used to lubricate U-joints.

Performances Features

High-Temperature Performance
UNITOL grease combines good high-temperature performance with extreme-pressure protection. This has been demonstrated in various laboratory tests.

Low-Temperature Performance
UNITOL grease provides dependable lubrication at low temperatures. Low-temperature torque tests conducted at -40°C (-40°F) show UNITOL grease to be suitable for use at temperatures at or above this level. Its suitability for use at low temperatures means that cold-weather dispensing problems are minimized.

Extreme-Pressure Properties
UNITOL grease has extreme-pressure and anti-wear characteristics that enable it to serve under conditions of high loading or severe shock loading. The load-carrying additive system used in UNITOL grease contains no lead or heavy metals; consequently, handling and disposal of this product is simplified, compared with those containing lead.

Other Properties
UNITOL grease has excellent water resistance and good rust-preventive properties. It also possesses good structural stability, retaining its consistency with shearing, without becoming soft or hard.

The composition of UNITOL grease is controlled to minimize its effect on elastomer materials and prevent excessive seal swelling. Its compatibility with most seal materials is an important advantage in a wide variety of applications.

MAXIMUM RELUBRICATION INTERVALS (Months)

	Motor Size			
Type of Service	1/ 4 - 7 1/ 2 hp	10- 40 hp	50- 150 hp	Over 150 hp
I	60	60	48	12
II	60	48	12	6
III	36	12	6	2
IV	Not Recommended for this Service (1)			

Type of Service
I Easy, infrequent operation (1 hr/day). Valves, door openers, and portable tools.
II Standard, 1 or 2-shift operation. Machine tools, air-conditioners, conveyors, refrigeration equipment, laundry and textile machinery, woodworking machinery, light-duty compressors and pumps.
III Severe, continuous running (24 hr/day). Motors, fans, motor-generator sets, coal and other mining machinery, steel-mill machinery and processing equipment.
IV Very severe. Dirty, wet, or corrosive environment, vibrating applications, high ambient-temperatures (over 40°C, 100°F), hot pumps and fans.

(1) UNIREX N or POLYREX EM grease is recommended for Type IV service, and for longer life at higher operating temperatures.

Precautions

UNITOL grease is manufactured from high quality petroleum base stocks, carefully blended with selected additives. As with all petroleum products, good personal hygiene and careful handling should always be practiced. Avoid prolonged contact to skin, splashing into the eyes, ingestion or vapour inhalation. Please refer to our ESSO Material Safety Data Sheet for further information.

Note: This product is not controlled under Canadian WHMIS legislation.

Lubricants and Specialties, Marketing Technical Services
Helplines: 1-800-268-3183

Typical Properties

NLGI grade	2
Soap type	Lithium-complex
Color	Blue
Texture	Smooth and Homogeneous
Base oil viscosity, cSt @ 40°C @ 100°C	 146 14
Base oil viscosity index	90
Dropping point, °C (°F)	>260 (500)
Worked penetration, 60 strokes, mm/10	285
Oil separation, wt.%	3
Oxidation stability	
Pressure drop at 100 hours, kPa (psi)	14 (2)
Pressure drop at 500 hours, kPa (psi)	70 (10)
Lubrication life, hours at 163°C	125
Wheel bearing leakage, 60-g pack at 163°C (325°F)], g	1.5
Load-carrying properties: Timken load, kg (lb) 4-Ball EP test, Load Wear Index, kgf Weld point, kg 4-Ball wear scar diameter, mm	 18 (40) 40 250 0.40
Water washout at 79°C, wt.%	4
Rust prevention rating	Pass

The values shown here are representative of current production. Some are controlled by manufacturing specifications, while others are not. All may vary within modest ranges.

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