

Fuel Conditioners & Treatments

CF5D Diesel Fuel Stabilizer – G00421

- Ignition Improver; Gum Dispersant
- Low Temperature Flow Improver Included
- Anti-oxidant to Improve Storage Stability of Fuel
- Moisture Displacing Corrosion Inhibitor; Added Lubricity; Cetane Improver
- Requires Federal EPA Fuel Additive Registration
- Diesel Only; Clear

FI-50 Diesel Fuel Flow Improver – G00422

- Allows Use of #2 Diesel Fuel All Year
- Economical; Reduces Pour Point
- Requires Federal EPA Fuel Additive Registration
- Can Be Used with G00421, G00422 & G00423
- Diesel Only; Clear

Oil Supplements

50K Engine Treatment – G00425

- One Quart, 50,000 Mile Engine Treatment
- Reduces Friction & Wear; More Efficient Engine Performance
- Easier Starting; Improves Lubricity; Reduces Heat; Amber

Gear Plus – G00371

- Extends Oil Life; Reduces Friction with MSX4
- Reduces Operating Temperatures
- Reduces Wear & Gear Scoring
- No Dry Starts; Quiets Noisy Gears & Bearings
- Red

Lubrication Accessories

Flexible Extension Hose – T00113

- 13 Inch Hose Designed to Fit All Greasing Systems Offered

Flexi-Gun – T00122

- Rugged, Precision Engineered Grease Gun
- Single-handed Operation; Up to 7,000 PSI
- For 14 Ounce Cartridge

KY Coupler – T00121

- Standard Coupler that Fits All Guns

Lube Demo Kit – T01081

- Complete Grease & Oil Demo Kit Including All Demo Aids

MDA7 Starbrite Diesel Fuel Improver – G00423

- Contains Disperants, Detergents, Corrosion Inhibitors, Combustion Catalysts & Algae Dispersants
- Requires Federal EPA Fuel Additive Registration
- Diesel Only; Clear

X-10 Fuel Conditioner – G00420

- Efficient, Cleaner Combustion & Increased Mileage
- Neutralizes Sulphur & Acids; Absorbs Moisture
- Cleans Injectors & Carburetors; Stops Valves from Sticking
- Requires Federal EPA Fuel Additive Registration
- Gas Diesel or L.P.G. Engines; Red

X-20 Moto Guard Oil Conditioner – G00424

- Increases Oil Pressure; Reduces Frictional Drag
- Reduces Lifter & Valve Noise; Increases Horsepower
- Reduces Piston Scuffing & Scoring
- Increases Mileage; Restores Viscosity Index
- Amber

Maxi-Lube – T00120

- Air Operated Grease System; Fits 120 lb Grease Pail; Up to 10,000 PSI

Mini-Lube – T00100

- Portable Grease Gun; Fits 7 lb Can; Up to 10,000 PSI

Rat Trap Demonstration Kit – T01080

Super-Lube – T00123

- Portable Grease Gun; Fits 45 lb Grease Pail; Up to 10,000 PSI
- Spring Operated, Requires No compressed Air

Glossary Continued

Pour Point Depressant: Additive used to lower the pour point of a petroleum product.

R&O: Rust-and-oxidation inhibited. A term applied to highly refined industrial lubricating oils formulated for long service in circulating systems, compressors, hydraulic systems, bearing housings, gear cases, etc.

Refining: Series of processes for converting crude oil and its fractions to finished petroleum products.

Rheology: Study of the deformation and flow of matter in terms of stress, strain, temperature, and time. The rheological properties of grease are measured by penetration.

Rust: The chemical combination of oxygen with ferrous materials such as iron or steel.

Rust Inhibitor: Type of corrosion inhibitor used in lubricants to protect the lubricated surfaces against rusting.

Rust Preventative: Compound for coating metal surfaces with a film that protects against rust; commonly used for the preservation of equipment in storage.

SAE (Society of Automotive Engineers): Organization responsible for the establishment of many U.S. automotive and aviation standards including the viscosity classifications of engine oils and gear oils.

Saybolt Universal Viscosity: Time in seconds required for 60 milliliters of a oil to flow through the calibrated orifice of a Saybolt Universal viscometer.

Seal Swell: Swelling of rubber (or other elastomer) gaskets, or seals, when exposed to chemicals.

Seizing: Sticking together of two surfaces usually due to the absence of sufficient oil film.

Single-Grade Oil: Engine oil that meets the requirements of a single SAE viscosity grade classification.

Soluble Oils: Oils which, following the addition of emulsifiers and stabilizers, are readily capable of mixing with water. They are used as drilling, cutting and cooling oils in metalworking.

Solvent: Compound with a strong capability to dissolve a given substance. The most common petroleum solvents are mineral spirits, xylene, toluene, hexane, heptane, and naphthas.

Sour Crude: Crude oil with high amounts of hydrogen sulfide or other sulfur compounds.

Specific Gravity: The ratio of the mass of a given volume of product and the mass of an equal volume of water, at the same temperature. Petroleum products may also be defined in terms of API gravity.

Surfactant: Surface-active agent that reduces interfacial tension of a liquid.

Sweet Crude: Crude oil containing little or no sulfur.

Synthetic Lubricant: Lubricating fluid made by chemically reacting materials of a specific chemical composition to produce a compound with planned and predictable properties. Synthetic lubricants are higher in cost than petroleum oils, so they are used selectively where performance or safety requirements may demand.

Tackifier: Additive used to increase the adhesive properties of a lubricant to prevent dripping and splattering.

Tag Closed Tester: Apparatus for determining the flash point below 200°F under ASTM D 56. The test sample is heated in a closed cup. A small flame of specified size is introduced to the cup through a shutter. The lowest temperature at which the vapors above the sample briefly ignite is the flash point.

Thixotropy: Tendency of grease or other material to soften or flow when subjected to shearing action. Grease will usually return to its normal consistency when the action stops.

Timken Test: Measure of the extreme pressure properties of a lubricating oil. The test utilizes a Timken machine which consists of a stationary block pushed upward by means of a lever arm system against the rotating outer race of a roller bearing, that is lubricated by the product under test. The test continues under increasing load (pressure) until a measurable wear scar is formed on the block. Timken OK load is the heaviest load that a lubricant can withstand before the block is scored.

Tribology: Science of interactions between surfaces moving relative to each other.

Vapor Pressure: Pressure of vapor in equilibrium with its liquid at a temperature; a measure of a liquid's volatility.

Viscosity: Measurement of a fluid's resistance to flow. Two types of viscosity measurement are common: Absolute, measured in Centipoise (cPs), and Kinematic, measure in Centistokes (cSt) or Saybolt universal seconds (SUS).

Viscosity Index (VI): A unitless number indicating the effect of temperature change on the viscosity of an oil.

Viscosity Index (VI) Improver: Lubricant additive that reduces the tendency of an oil to change viscosity with temperature. Multi-grade oils, usually contain VI improvers.

Wear: The loss or relocation of material from two or more surfaces in relative motion.

Weld Point: The lowest applied load in kilograms at which the rotating ball in the Four Ball EP test either seizes and welds to the three stationary balls or at which extreme scoring of the three balls results.



**Amrep –
Providing Innovative Solutions
for all Your Maintenance Needs**

Gear Oils

High Load (SAE90) – G00399

- Non-foaming; Non-corrosive; Prevents Rusting
- No Dry Starts; Minimum Wear on Gears
- Low Pour Point; Will Not Mix & Emulsify with Water
- Reduces Frequency of Oil Changes
- Vehicular/Industrial; Green

High Load (SAE140) – G00379

- Non-foaming; Non-corrosive; Prevents Rusting
- No Dry Starts; Minimum Wear on Gears
- Low Pour Point; Will Not Mix & Emulsify with Water
- Reduces Frequency of Oil Changes
- Vehicular/Industrial; Green

High Load (SAE85W-140) – G00380

- Non-foaming; Non-corrosive; Prevents Rust
- No Dry Starts; Minimizes Wear on Gears
- All Season GearOil; Will Not Mix with Water
- Vehicular/Industrial; Green

Superfilm Industrial (SAE90) – G00375

- Anti-foam Agents; AGMA5EP/ISO220
- 100 lb Timken OK Load
- Pour Point Depressant
- Industrial Gear Lube; Amber

Superfilm Industrial (SAE140) – G00376

- Anti-foam Agents; AGMA7EP/ISO460
- 100 lb Timken OK Load
- Pour Point Depressant
- Industrial Gear Lube; Amber

Hydraulic Oils

Superfilm Hydraulic Oil (SAE10/ISO32) – G00381

- Anti-wear Agents; Anti-foam Agents
- Oxidation, Rust, & Corrosion Inhibitors
- Pour Point Depressants
- High Viscosity Index; Green

Superfilm Hydraulic Oil (SAE20/ISO46) – G00383

- Anti-wear Agents; Anti-foam Agents
- Oxidation, Rust, & Corrosion Inhibitors
- Pour Point Depressants
- High Viscosity Index; Green

Superfilm Hydraulic Oil (SAE30/ISO100) – G00384

- Anti-wear Agents; Anti-foam Agents
- Oxidation, Rust, & Corrosion Inhibitors
- Pour Point Depressants
- High Viscosity Index; Green

Superfilm Hydraulic Oil 5000 – G00388

- Contains Demulsifier, Anti-leak Additives
- Pour PointDepressant, Anti-foam, Anti-wear Agents, Oxidation, Rust/Corrosion Inhibitors
- Often Can Replace Multiple Oils
- 5000 Hour D-943 Oxidation; Amber

Specialty Oils

All-in-One Transmission Fluid – G00391

- Anti-wear; Excellent Lubricity
- Temperature Stability; Oxidation Resistant
- Meets Dexron II, Ford M2C166-H, Caterpillar T0-2, Allison C-3; Red

Superfilm Universal Tractor Fluid – G00390

- Meets Allison C-3/C-4
- Contains Zinc dithiophosphate
- Pour Point & Foam Depressants
- Rust, Corrosion, & Oxidation Inhibitors
- Stabilizing & Tacking Agents; Red

Motor Oil

Superfilm Engine Oil (SAE15W-40) – G00412

- Additives for Anti-scuff, Anti-wear, Detergency, Dispersants, Oiliness Foam, Oxidation, Rust & Corrosion Inhibitors
- Stabilizing Agents; Amber
- Meets MIL-L46152D for Gasoline & Diesel Engines
- Meets MIL-L2104F

- Meets A.P.I. Service Classifications
- Exceeds the Performance Requirements of: Detroit Diesel, Detroit Diesel CD-11, Mack (EO-J,EO-K/2,EO-L),Caterpillar (S-3,TO-2), Volvo B-20, MIL-L-46152D, MIL-L-2104E & Ford, Chrysler, & I.H. Requirements for Alkyl Zinc
- Exceeds A.S.T.M. Sequence Test IIC, IIIE, & VE.

LUBRICANTS

Lubricants

Greases

Anti-Seize Compound – G00737

- Lubrication to 2100°F; Extreme Pressure
- Waterproof; Protects Against Galling & Seizing
- No Lead or Copper; Includes Application Brush
- Protects Against Rust & Corrosion
- Use on Bolts, Spark Plugs, Threaded Fittings, Gaskets & Bushings
- Silver-Gray

Gold Grease – G00727

- 65 lb Timken OK Load
- Excellent Metal Adhesion; Protects Against Acids & Alkalies
- Gold

Lithium Complex E.P. Grease – G00733

- Contains Corrosion & Rust Inhibitors
- 60 lb Timken OK Load
- Anti-wear Agents & Extreme Pressure Additives
- Protects Against Water Wash Out
- High Temp Lithium Complex; Blue

Moly Grease – G00728

- 65 lb Timken OK Load
- Resists Most Acids, Weather, Dirt, Water, Steam & Oxidation
- Wide Range of Operation Temperatures
- Rust & Corrosion Inhibitors
- Contains Moly for EP; Gray-Black

No-Mess – A00739

- Barrier Pack Aerosol Version of Anti-Seize Compound; Application Pad on Each Can
- Reduces Waste, Dripping & Mess; Silver

Open Gear & 5th Wheel Grease – G00736

- Non-melt Characteristics; Excellent Adhesion to Metals
- Resistant to Acids, Alkalies, Dust, Dirt & Water
- Protects Against Oxidation; Spatter Proof
- Each Case Includes a Caulking Tube Applicator
- Black

Red Grease #1 – G00726

- Resistant to Acids, Water, Salt Spray, Dirt, Dust & Steam
- Adhesive/Cohesive Properties; Impact Resistance
- Corrosion & Rust Inhibitor; 65 lb Timken OK Load; Anti-wear
- NLGI #1 Grade for Enhanced Low Temp Properties
- Red

Red Grease #2 – G00726

- Resistant to Acids, Water, Salt Spray, Dirt, Dust & Steam
- Adhesive/Cohesive Properties; Impact Resistance
- Corrosion & Rust Inhibitor; 65 lb Timken OK Load; Anti-wear
- NLGI #2 Grade
- Red

Slip Shot II – A00727

- Multipurpose, Grease Lubricant
- Penetrates then Quickly Sets Up
- Withstands Up to 500°F; Resists “Throw-Off”
- Water Resistant Aerosol; Prevents Rust
- Red

Super Impact Grease – G00729

- Wide Range of Operating Temperatures
- 65 lb Timken OK Load
- Superior Water Resistance; Rust & Corrosion Inhibitors
- Resistant to Most Acids, Dirt, Water, Steam & Oxidation
- Will Not “Pound Out” or Spatter; Green

Tuffplate Grease (with P.T.F.E.) – G00730

- Non-melt Grease; Fortified with P.T.F.E.
- 50 lb Timken OK Load
- White

Ultra High Temp – G00735

- Low Gumming Base; No Dropping Point
- Fortified with Molybdenum Sulfide
- Extreme Temperature Capability; Silver

White Guard Supreme (with P.T.F.E.) – G00724

- Food Grade Bearing Grease
- Excellent Rust Protection; Oxidation Inhibited
- Good High Temperature Properties
- Good Adhesion/Cohesion Properties
- Excellent Water Resistance
- Superior Four-Ball EP & Anti-wear
- White

White Lithium Grease – A00725

- Lubricates & Reduces Friction
- Aerosol; Excellent Multipurpose Grease
- Fortified with P.T.F.E.
- Prevents Rust & Corrosion
- White

Lubricants

Specialty Lubricants

All Purpose Silicone Spray – A00325 ♦

- High Viscosity, Lubricates, Protects
- Does Not Cause Gumming; Industrial Grade
- No Chlorinated or Fluorinated Solvents
- Freeze Proof Locks, Hindges & Glides

Dry Moly Lubricant – A00387

- Fast Drying High Solids Aerosol
- Withstands High Temperatures & Pressure
- Dry Film; Black; Bonds - Won't Rub Off

Economy Silicone Spray – A00324 ♦

- Medium Viscosity, Protects & Renews
- Does Not Cause Gumming; Reduces Friction
- No Chlorinated or Fluorinated Solvents
- Dry Film Type Silicone; Textile Grade
- Chutes, Glides, Tables

Penetrating Lubricants

MG-41 – A00393

- 4-in-1 Aerosol Lubricant & Penetrant (Contains P.T.F.E.)
- Displaces Moisture; Prevents Corrosion
- Nonchlorinated

Moisture Guard – A00391

- 4-in-1 Aerosol Penetrating Oil (P.T.F.E.)
- Lubricates; Excellent Rust Buster
- Displaces Water; Prevents Corrosion
- Nonflammable, Non-Ozone Depleting

Chain & Cable Lubes

Chain & Cable Lube – A00352

- Multiple Applications
- Lubricates & Reduces Friction
- Fortified with Moly & P.T.F.E.
- Nonchlorinated; Precise Linear Spray Pattern
- Aerosol Version of G00352

Silver Spur Chain & Cable Lubricant – G00352

- Prevents Metal to Metal Contact
- Reduces Friction, Heat, Stress & Wear
- Silver-Green

Compressor Oil

Synthetic Blend Compressor Oil – G00360

- Contains Oxidation, Rust & Corrosion Inhibitors
- Anti-wear, Anti-foam & Anti-scuff Agents
- Pour Point Depressant
- Reduces Lubricant Inventory – Stock One Item
- 5000 Hour D-943 Oxidation; Green

Foamy Lube – A00323

- Sanitary Aerosol Lubricant for Food Processing & Handling Equipment
- Odorless Clinging Foam
- Tight Conical Spray Pattern

Food Grade Silicone Spray – A00326 ♦

- Multipurpose, Multi-use Aerosol
- Colorless, Odorless, Non-staining
- Precise Vertical Fan Spray Control
- Heavy Film Silicone

Penetrant Lubricant – A00390

- Aerosol Fortified with P.T.F.E.
- Lubricates & Cleans Metal Parts
- Loosens Nuts & Bolts
- Prevents Corrosion & Displaces Moisture
- Nonflammable

Special Wire Rope Lubricant – G00353

- Drying, Anti-wear & E.P. Agents
- Oxidation, Rust & Corrosion Inhibitors
- Penetrates Core of Rope to Reduce Inter-Strand Wear; Black

Lubricants

Glossary

Additive: Chemical substance added to petroleum product to impart or improve certain properties. Common petroleum product additives are: anti-foam, anti-wear, corrosion inhibitor, demulsifier, detergent, dispersant, emulsifier, EP additive, oxidation inhibitor, pour point depressant, rust inhibitor, tackifier, etc.

Anti-foam Agent: An additives used to reduce foaming

Anti-wear Additive: Additive in a lubricant that reduces friction and excessive wear.

Asperities: Microscopic projections on metal surfaces resulting from normal surface-finishing processes. Interference between opposing asperities in sliding or rolling applications is a source of friction, and leads to welding and scoring. Ideally, the lubricating film between two moving surfaces should be thicker than the combined height of the opposing asperities.

Boundary Lubrication: Form of lubrication between two rubbing surfaces without development of a full-fluid lubricating film. Boundary lubrication can be made more effective by including anti-wear additives. The more severe boundary lubrication is defined as extreme pressure; lubricants containing EP additives are used here.

Cetane: Colorless liquid hydrocarbon, C₁₆H₃₄, used as a standard in determining diesel fuel ignition performance.

Cetane Improver: Additive for raising the cetane number of a diesel fuel.

Cetane Index: An approximation of cetane number based on API gravity and mid-boiling point of a diesel fuel.

Cetane Number Testing: Using ASTM D 613, a measured value indicating the ignition quality of diesel fuel.

Cloud Point Testing: Using ASTM D 2500, the temperature at which haze appears in an oil sample.

Cold-Flow Improver: Additive to improve flow of diesel fuel in cold weather. Improves operation by modifying the size and structure of wax crystals that precipitate out of fuel at low temperatures, permitting their passage through the fuel filter. In most cases, the additive depresses the pour point, which delays agglomeration of the wax crystals, but usually has no significant effect on diesel engine performance. Another means of improving cold flow is to blend kerosene with diesel fuel, which lowers the wax appearance point by about 1°C (2°F) for each 10% increment of kerosene added.

Corrosion: Any observed chemical attack on metal parts. Rust is a special case of the corrosion of iron.

Corrosion Inhibitor: Additive for protecting lubricated metal surfaces against chemical attack by water or other contaminants. There are several types of corrosion inhibitors.

Demulsibility: Ability of an oil to separate from water

Detergent: Important component of engine oils that helps control varnish, deposits, and rust by keeping particles in suspension.

Detergent Dispersant: Engine oil additive that is a combination detergent and dispersant, important in preventing the formation of sludge and other engine deposits.

Diesel Fuel: That portion of crude oil that distills between approximately 390°F to 690°F, which is higher than gasoline. Diesel fuel is ignited in the cylinder by the air heated from being highly compressed. Cetane number expresses a diesel fuels ignitability. Diesel fuel is similar to the lighter heating oils. There are two grades of diesel fuel, Diesel 1 and Diesel 2. Diesel 1 is a kerosene-type fuel, lighter, more volatile, and cleaner than Diesel 2.

Dispersant: Engine oil additive that helps prevent sludge, varnish, and other engine deposits by keeping particles suspended in a colloidal state. Dispersants are normally used in conjunction with detergents.

Elasto-Hydrodynamic (EHD) Lubrication: Lubrication phenomenon occurring during elastic deformation of two non-conforming surfaces under high load. A high load carried by a small area (as between the ball and race of a rolling contact bearing) causes a temporary increase in lubrication viscosity as the lubricant is momentarily trapped.

Engine Oil (Crankcase Oil, Motor Oil): Oil carried in crankcase, sump, or oil pan of a reciprocating internal combustion engine to lubricate all major engine parts. In automotive applications engine oil not only lubricates, but cools hot engine parts, keeps the engine free of rust and deposits.

EP Additive: Lubricant additive that prevents sliding metal surfaces from seizing under conditions of extreme pressure (EP). This prevents the welding of opposing asperities, and scoring that destroys surfaces.

Flash Point: The temperature at which a product's vapor can be ignited momentarily by a flame,

Friction: Resistance to the motion of one surface over another. Friction is dependent on the smoothness of the surfaces, and the force with which they are pressed together. Friction of unlubricated solid bodies is independent of speed and area. The coefficient of friction is obtained by dividing the force required to move one body over a horizontal surface at constant speed by weight of the body. Coefficients of rolling friction (e.g., the motion of a tire or ball bearing) are much less than the coefficient of sliding friction (back and forth motion over two flat surfaces). Sliding friction is thus more wasteful of energy and can cause more wear. Fluid friction occurs between the molecules of a gas or liquid in motion. Unlike solid friction, fluid friction varies with speed and area. In general, lubrication is the substitution of low fluid friction in place of high solid-to-solid friction.

Full-Fluid-Film Lubrication: Presence of a continuous lubricating film sufficient to completely separate two surfaces, as distinct from boundary lubrication. Full-fluid-film lubrication is normally hydrodynamic lubrication, where the oil is drawn into the area between moving surfaces, where it forms a pressure, or hydrodynamic, wedge.

Gasoline: Blend of light hydrocarbon fractions of relatively high anti-knock value. A high-quality gasoline has the following properties (1) proper volatility to ensure easy starting and rapid warm-up; (2) clean-burning characteristics to prevent harmful engine deposits; (3) additives to prevent rust, oxidation, and carburetor icing; (4) sufficiently high octane number to prevent engine knock.

Lubricants

Gear: Machine part which transmits motion and force from one rotary shaft to another by means of successively engaging projections, called teeth.

Gear Oil (Automotive): Long-life oil of relatively high viscosity for the lubrication of rear axles and some manual transmissions.

Gear Oil (Industrial): High quality oil with good oxidation stability, rust protection, and resistance to foaming, for service in gear housings and enclosed chain drives. Specifically formulated industrial EP gear oils are used where highly loaded gear sets or excessive sliding actions (as in worm gears) is encountered.

Grease: Mixture of a fluid lubricant and a thickener dispersed in the oil. Because greases do not flow readily, they are used where extended lubrication is required and where oil could not be retained. There are two basic categories of grease thickeners: soap and non-soap. Soap thickeners are made from an alkali, reacted with a fatty acid. The type of soap used depends on the grease properties desired.

Hydraulic Fluid: Fluid serving as the power transmission medium in a hydraulic system. The most commonly used fluids are petroleum oils, synthetic lubricants, oil-water emulsions, and water-glycol mixtures.

Hydraulic System: System designed to transmit power through a liquid medium. Hydraulic systems have six basic components: (1) reservoir; (2) fluid; (3) pump; (4) valve; (5) directional valve, and (6) working component.

Hydrophilic: Also hydroscopic, having an affinity for water.

Hydrophobic: The opposite of hydrophilic.

ISO Viscosity Classification System: International system, approved by the International Standards Organization (ISO), for classifying industrial lubricants according to viscosity. Each ISO viscosity grade number designation corresponds to the mid-point of a viscosity range expressed in centistokes (cSt) at 40°C. For example, a lubricant with an ISO grade of 32 has a viscosity within the range of 28.8 - 35.2 cSt, the mid-point of which is 32.

Journal: That part of a shaft or axle which rotates in or against a bearing.

Kinematic Viscosity: The measure of a fluid's resistance to flow under gravity. It is determined by allowing a fixed volume of the test fluid to flow through a calibrated capillary tube at a closely controlled temperature.

Load Wear Index (LWI): Measure of the relative ability of a lubricant to prevent wear under applied loads; it is calculated from data obtained from the Four Ball EP Method.

Lubricating Oil: Compounded or finished oil consisting of base stocks and the additives necessary for providing the required performance.

Lubrication: Control of friction and wear by the introduction of a friction-reducing film between moving surfaces in contact. The lubricant used may be a fluid, solid, or plastic substance.

Lubricity: Ability of an oil or grease to lubricate; also called film strength. Lubricity can be enhanced by additive treatment.

Mineral Oil: Any petroleum oil as contrasted to animal or vegetable oils. Also, a highly refined petroleum distillate, or white oil, used medicinally as a laxative.

Mineral Seal Oil: Distillation fraction between kerosene and gas oil widely used as a base oil in many specialty formulations. Mineral seal oil takes its name not from any sealing function but from the fact that it originally replaced oil derived from seal blubber for use as an illuminant for signal lamps and lighthouses.

Molybdenum Disulfide: A black, lustrous powder (MoS₂) that serves as a dry-film lubricant in certain high-temperature and high-vacuum applications.

Multi-Grade Oil: Engine oil that meets the requirements of more than one SAE viscosity grade classification, making it suitable for use over a wider-temperature range than single-grade oil. Multi-grade oils have two viscosity grade numbers indicating their lowest and highest classification, e.g., SAE 10W40. The lower grade number indicates the viscosity of the oil when cold. The higher grade number indicates the viscosity of the oil at high temperature. The “W” means “winter” grade. Multi-grade oils contain viscosity improvers that reduce the tendency of an oil thin-out at high temperatures.

Natural Gas: Naturally occurring mixture of gaseous saturated hydrocarbons consisting of 80-95% methane (CH₄), lesser amounts of propane, ethane and butane, and small quantities of non-hydrocarbon gases (e.g., nitrogen, helium).

NLGI (National Lubricating Grease Institute): Trade association whose main interest is grease and grease technology. NLGI is best known for its system of rating greases by penetration.

Octane Number: Expression of the anti-knock properties of a gasoline. There are two distinct types of octane number measured in the laboratory: Research Octane Number (RON) and Motor Octane Number (MON). Both the RON and MON tests are conducted in the same laboratory engine, but since RON is determined under less severe conditions, it is higher than MON for the same fuel. The average of the two numbers - (RON + MON)/2 is what is usually posted as Octane number.

Paraffin (Paraffinic): Hydrocarbon identified by saturated straight or branched carbon chains). Paraffinic lube oils have relatively high wax content and pour point and generally have a high viscosity index (VI). Paraffinic solvents are generally lower in solvency than naphthenic or aromatic solvents.

Pensky-Martens Closed Tester: Apparatus used in determining the flash point under ASTM D 93. The test sample is heated in a closed cup with continual stirring. A small flame is introduced into the cup through shuttered openings. The lowest temperature at which the vapors above the sample briefly ignite is the flash point.

Petrochemical: Any chemical derived from crude oil, crude products, or natural gas.

Pour Point: Using ASTM D 97, the lowest temperature at which the oil can be poured.

Glossary Continued on Back