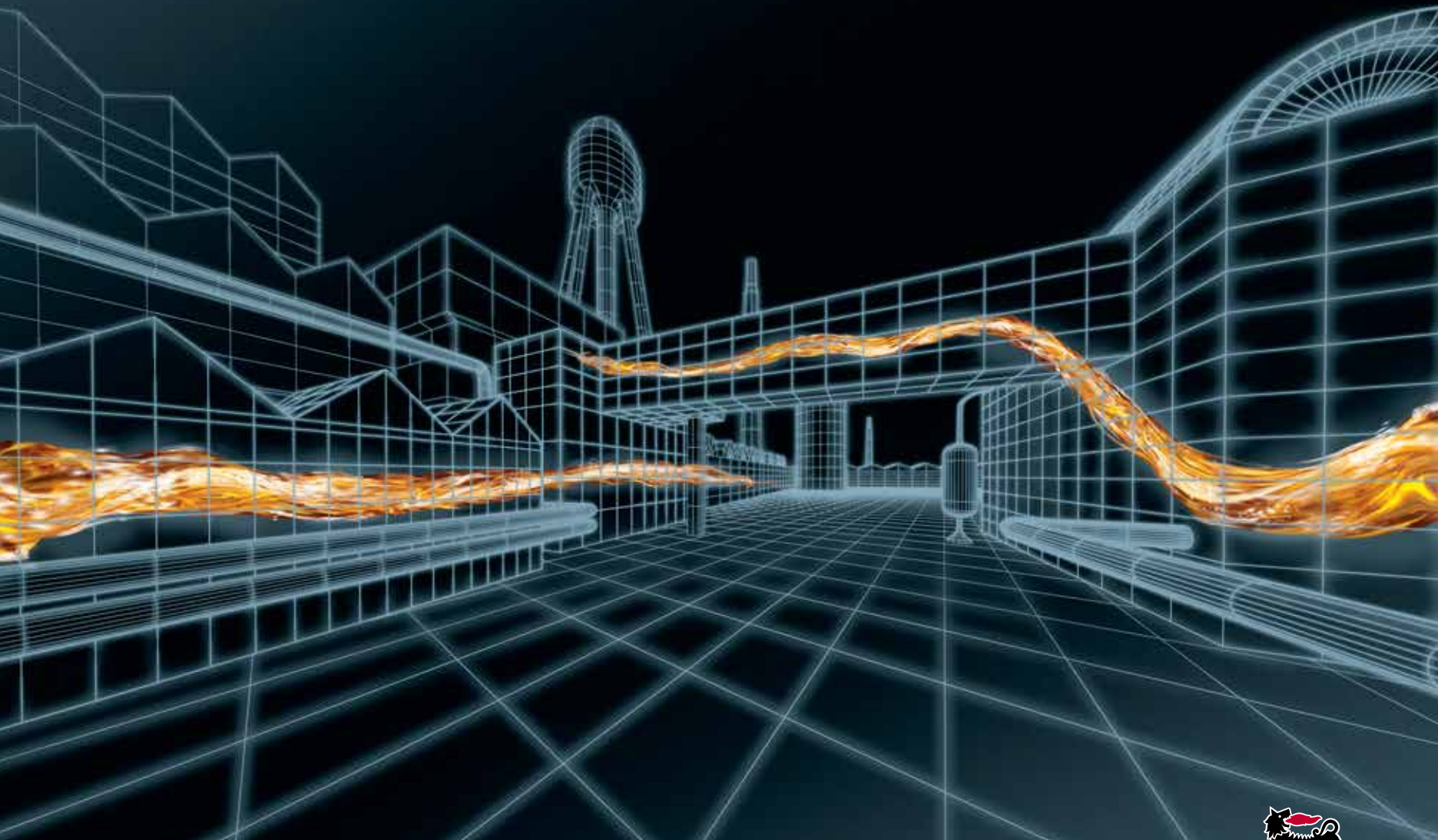


from eni research

choose the best
for industry



Industrial
oils

lubricants technology comes alive



eni

eni.com/na

the six-legged dog, a strong link between present and future

In 2009 eni launched a brand streamlining process aiming to achieve clear identification and higher efficiency of its logo. The evolution and improved consistency of eni's image involves 70 countries and numerous sectors in which the company operates. eni has reached its visual identity and intends to align it to its new role as a 360-degree energy company whose offering includes fuels, electric power and gas.

Today, eni is an open and dynamic company. Its key values are sustainability, culture, partnership, innovation and efficiency. In line with these values, the updated logo developed by eni maintains the continuity elements that have characterized it until now, while emphasizing the spirit of a constantly evolving, integrated company that pays attention to the territory and entertains relations with all its stakeholders.



Contents

Transmission	4
Compressor	6
Metalworking	7
Gear	9
Hydraulic	11
Industrial Engine	13
Specialty	14
Grease	15

Transmission

Product Name:	Product Description:	Performance Levels/Applications:
eni Rotra ATF III 4AM	<ul style="list-style-type: none"> • Provides wear protection, oxidation and thermal stability for long transmission life in automatic, powershift and hydrostatic transmissions used in many cars, trucks and off-highway vehicles. • Maintains fluidity at low temperatures • Anti-wear protection reduces wear on bearings and gears • Friction modified to deliver smooth gear shifts • Prevents clutch shudder 	<ul style="list-style-type: none"> • May be used in automatic transmissions where former Dexron III/ Mercon fluids are recommended
eni Rotra ATF HV 4AM	<p>Rotra ATF HV 4AM is a premium synthetic Automatic Transmission Fluid designed for use in both heavy duty and import applications and provides the following benefits:</p> <ul style="list-style-type: none"> • Excellent lubricating properties provide smooth shifting and quiet operation throughout service life • Outstanding anti-shudder durability • Superior resistance to oxidation, foam, rust, corrosion and seal degradation • Superior wear control • Excellent viscosity stability at both high and low temperatures 	<p>SUITABLE FOR USE IN TRANSMISSIONS REQUIRING THE FOLLOWING SPECIFICATIONS:</p> <ul style="list-style-type: none"> • Allison C-4, TES 295* • BMW - LT 71141; 2634; ETL-7045E; 8072B • CAT - TO-2 • Chrysler ATF +3; ATF +4* • Ford Mercon; Mercon V* • GM D-II; DIII(G); DIII (H) • HMC / Kia SP-II; SP-III • Honda ATF Z1 • Jaguar • Jaso M315-2004 • Land Rover • Man 339 V1; 339 Z2 • Mazda ATF M-III: ATF M-V • MB-Approval 236.01; 02; 03; 05; 06; 07 236.09; 10; 11; ATF 3403 M-115 • Nissan Matic D; Matic J; Matic K • Subaru ATF; ATF-HP • Toyota T-III; T-IV; JWS 3309 • Voith H55.6335.XX (G607) • VW/Audi: G 052 025 (09M); G 052 990 (09A) • ZF TE-ML 03D; 04D; 14A; 14B; 16L; 17C <p>*Viscometric specification not met</p> <p>ROTRA ATF HV 4AM MEETS MOST ATF SPECIFICATION REQUIREMENTS, PRIMARY EXCEPTIONS ARE:</p> <ul style="list-style-type: none"> • Older applications calling for non-friction modified ATF (e.g., Type F) • New General Motors transmissions calling for Dexron VI ATF • Continuous Variable Transmission (CVT) applications
eni Dexron VI	<p>Dexron VI ATF is approved for use in all General Motors passenger cars, trucks and vans with automatic transmissions. Recommended for use where Dexron VI, Dexron III or Dexron III H specification is recommended.</p>	<p>Approval Number GM J-60306</p>
eni Multitech 4AM	<p>A high quality transmission/differential/hydraulic fluid recommended for use in powershift/hydrostatic/manual transmissions, differentials, final drives, wet brakes/clutches, power steering and PTO drives commonly used in farm and construction equipment, off-highway vehicles and industrial tractors.</p> <ul style="list-style-type: none"> • Minimizes wet brake and clutch chatter for vibration-free operation • Excellent EP properties to reduce gear pitting and wear • Excellent antiwear properties for longer bearing and hydraulic pump life • Provides a wide temperature operating range for summer and all but the most severe winter operations • Good corrosion protection even in the presence of moisture • Long fluid life due to its excellent oxidative stability • Good filterability 	<ul style="list-style-type: none"> • John Deere J20A, J20C • Ford New Holland M2C41B, M2C48B, M2C48C, M2C86C, M2C134D • Massey-Ferguson M1110, M1127A, M1127B, M1129A, M1135, M1139, M1141 • J.I. Case MS1204, MS1205, MS1206, MS1207, MS1210 • Deutz-Allis (PF821XL), Versatile (23M or 24M), Landini, Fiat-Hesson • Kubota B6 (UDT) • IHC B-6 • Vickers 35VQ25 • White Farm Q1826 • Mobile Equipment Hydraulic Systems • Power Shift Transmissions specifying Allison C-3/C-4 or CAT fluids

Product Name:	Product Description:	Performance Levels/Applications:
eni Multitech CW 4AM	<p>Recommended for use in cold weather climates in power-shift/hydrostatic/manual transmissions, differentials, final drives, wet brakes/clutches, power steering and PTO drives commonly used in farm, construction and forestry equipment, off-highway vehicles and industrial tractors.</p> <p>Multitech CW 4AM provides exceptional performance in most tractors specifying a cold weather grade Universal Tractor Fluid.</p> <ul style="list-style-type: none"> • Advanced final drive performance • Superior protection against pump wear and abrasion • Excellent cleanliness • Superior friction durability • Excellent field performance in a variety of tractors 	<p>MEETS OR EXCEEDS THE FOLLOWING SPECIFICATIONS:</p> <ul style="list-style-type: none"> • John Deere J20D • Ford New Holland M2C41B, M2C48C • AGCO - Massey-Ferguson M1110, M1127A, M1127B, M1129 • J.I. Case MS1207, MS1210
eni Multitech TO-4 4AM SAE 10, 30, 50	<p>This oil was designed to maximize Caterpillar transmission and final drive life and performance. Multitech TO-4 is primarily intended for use in vehicle friction devices (power shift transmissions, clutches, and brakes) and in other vehicle drive train components such as final drives, bevel gears and differentials. It may also be used in hydraulic systems. The additive system utilizes thermally stable low nitrogen components to ensure compatibility with the fluoroelastomer binder used in power shift transmission discs.</p>	<p>MEETS OR EXCEEDS THE FOLLOWING SPECIFICATIONS:</p> <ul style="list-style-type: none"> • Allison C-4 • Caterpillar TO-4
eni Rotra Syn Trans 4AM SAE 50	<p>A fully synthetic manual transmission lubricant engineered to meet demanding extended drain and OEM warranty requirements. It is recommended for year-round lubrication of manual transmissions in light to severe duty on- and off-highway equipment operating in a wide range of environments.</p> <p>In transmission applications, it provides advantages over conventional sulphur-phosphorus type gear oils, including enhanced high-temperature performance, oxidation stability, wear protection, and corrosion control.</p>	<p>APPROVED FOR:</p> <ul style="list-style-type: none"> • Heavy-duty transmissions covered by Eaton Corporation's Eaton RoadRanger and its extended warranties of 750,000 miles. <p>PERFORMANCE LEVELS:</p> <ul style="list-style-type: none"> • API MT-1 • Eaton PS-164 Rev 7 • Mack TO-A Plus • International TMS -6816 • ZF Freedom Line
eni MTL Synthetic CD-50	<p>Full synthetic SAE 50 lubricant formulated for use in heavy duty manual transmissions in on-highway trucks and off-highway equipment that require a non-EP lubricant.</p> <p>Contains an effective additive package that reduces wear, protects against rust and corrosion and provides excellent oxidation stability. In addition, the high viscosity index, low pour point and sub-zero fluid flow provides for easier cold weather shifting, less drag and less gear wear, promoting longer transmission life.</p>	<p>SUITABLE FOR USE IN THE FOLLOWING APPLICATIONS:</p> <ul style="list-style-type: none"> • API MT-1 • Eaton Transmission Fluid PS 164 Rev 7 • Navistar TMS 6816 • Mack TO-A Plus • Volvo I-Shift • ZF Freedomline

Compressor

Product Name:	Product Description:	Performance Levels/Applications:
eni Dicrea 4AM ISO VG 32, 46, 68	Dicrea 4AM premium synthetic blend lubricants are a blend of synthetic and petroleum base fluids specially designed for compressor applications and are useful in multi-purpose applications. Manufactured using the highest quality base stocks, additive treated with rust and corrosion inhibitors, oxidation control agents, anti-wear compounds and defoamants and is exceptional at controlling sludge and deposits.	<ul style="list-style-type: none"> • Rotary screw and centrifugal compressors • Low temperature lubrication • High temperature lubrication • Turbine Lubrication
eni Dicrea SX 4AM ISO VG 32, 46, 68	<ul style="list-style-type: none"> • Manufactured from the highest quality base stock PAO (polyalphaolefin) and advanced additive technology. • Has a low pour point, high viscosity index and excellent water demulsibility. • Compatible with commonly used seal materials and equipment designed for use with petroleum fluids. 	<ul style="list-style-type: none"> • Recommended for rotary screw, centrifugal, and reciprocating compressors and offers many advantages over petroleum-based lubricants as well as some synthetics – especially where compatibility is an important concern.
eni Dicrea ESX 4AM ISO VG 32, 46, 68, 100	<ul style="list-style-type: none"> • A unique combination of quality diester base stocks and the latest additive technology • Designed for use in the crankcase and as a cylinder lubricant • Compatible with most elastomers used in compressors and pumps, including paint use in crankcases • Low temperature fluidity • Reduced friction – approximately 20% lower coefficient of friction • Better thermal conductivity – reduces operating temperature • High temperature thermal stability – will not disassociate under thermal stress • Greater resistance to mechanical stress – will not shear under heavy loads or extreme stress • Reduced metal-to-metal wear • Better demulsibility characteristics – moisture separates readily, providing better rust and corrosion protection • More energy efficiency 	<ul style="list-style-type: none"> • Certain rotary screw and vane compressors • Centrifugal compressors • Low temperature lubrication • High temperature lubrication
eni Dicrea PG 4AM 38, 55	Formulated to address the specific problems associated with conventional rotary screw compressor coolants – thermal degradation and deposit formation. The polyglycol/ester blend has provided superior performance in the areas of oxidation resistance and deposit formation.	<ul style="list-style-type: none"> • Dicrea PG 4AM is the alternative to varnish, sludge and the frequent lubricant changes associated with hydrocarbon oils.
eni Ultimate 4AM ISO VG 46, 68	<ul style="list-style-type: none"> • High-performance lubricant formulated specifically to outperform other synthetic rotary compressor lubricants on the market • Employs a unique base stock which allows improvements in oxidation resistance and sludge and deposit formation over conventional synthetic base stocks 	<ul style="list-style-type: none"> • Compatible with existing O.E.M. provided lubricants

Metalworking

Product Name:	Product Description:	Performance Levels/Applications:
eni Aster ASC 4AM 160, 250	<p>Extra heavy-duty cutting oil designed for severe machining operations such as threading, tapping, and broaching. The combination of active sulfur and fatty additives produce improved surface finish and tool life. Because of its active sulfur content, Aster ASC 4AM will stain metals containing copper and brass.</p>	
eni Aster ASC HT 4AM 160	<p>Heavy-duty cutting fluid designed for severe machining operations such as threading, tapping, and broaching. The combination of active sulfur and fatty additives produce improved surface finish and tool life. Because of its active sulfur content, Aster ASC HT 4AM will stain metals containing copper.</p>	
eni Aquamet 2001-A 4AM	<ul style="list-style-type: none"> • High performance oil rejecting synthetic fluid formulated for the most severe ferrous as well as nonferrous applications • Designed to outperform EP-fortified soluble oils and semi-synthetics in most operations. • Contains no chlorinated, sulfurized, or phosphorous containing additives. In fact, the product's chemical composition, which provides its complete tramp oil rejection property, makes it incompatible with such materials. • Possesses both low foaming characteristics, even in dead soft water, and excellent hard water (600 ppm as CaCO₃) stability. This makes it suitable for use across a broad spectrum of applications and water conditions, even Blanchard and/or Double Disc Grinding in all areas of soft water. • Excellent sump life, quick tramp oil rejection, and fine settling characteristics make it an ideal coolant in either single sump machines or especially central system applications. Longevity is a key item with this product. 	<p>DILUTION LEVELS:</p> <ul style="list-style-type: none"> • Blanchard/Double Disc 40:1 - 25:1 • Severe Grinding 40:1 - 20:1 • Heavy Duty Machining 20:1 - 10:1
eni Aquamet 4001 4AM	<p>A premium quality semi-synthetic micro emulsion product that is suitable for use on non-ferrous metal, stainless steels and aluminum and copper alloys. Such operations may include grinding, milling, turning, and drilling. Aquamet 4001 has exceptional lubricity and cleanliness properties and imparts excellent rust protection to both machine tools and finished metal parts.</p> <ul style="list-style-type: none"> • Because of its versatility, this one coolant can be used for a wide variety of metal working operations. • Fully fortified with biocide, corrosion inhibitors, and wetting agents • Does not contain phenolic ingredients or heavy metals 	

Product Name:	Product Description:	Performance Levels/Applications:
eni Aster DP 4AM 160, 250	Designed for use as a machine lubricant and a cutting oil. These products contain inactive sulphur which is non-corrosive to copper and its alloys along with a mist suppressant to minimize fogging and stray mist in the workplace. A synthetic fat is also added to improve lubricity and surface finish.	<ul style="list-style-type: none"> • Can be used as a general purpose machining lubricant where operations range from mild to severe. • These products do not contain nitrites, chlorine, amines, or heavy metals.
eni Aster HD 4AM 160, 250	Possesses the latest technology in active sulfur cutting fluids. Because these products contain active sulfur, they will discolor copper and its alloys and normally should not be used in machining these metals if staining is objectionable. A synthetic fat is added to improve lubricity and surface finish.	These dark color products are for use in cutting, threading, tapping and grinding applications.
eni Aquamet GP 4AM	General purpose oil recommended for light-duty machining ferrous metals where cooling is of primary concern but some lubricity and rust protection is necessary. Carefully formulated from a balanced blend of naphthenic mineral oil, special emulsifiers, rust inhibitors and a nonphenolic bactericide, our new formulation contains a high percentage of emulsifiers to permit a stable emulsion even in relatively hard water. Aquamet GP 4AM is especially recommended for grinding operations where rapid settling of fines is required. Aquamet GP 4AM is a stable, non-skinning soluble oil that not only is stable under a wide range of temperatures (including freeze thaw tests), but also is free of any heavy metals, phenols and nitrites.	<p>5% Emulsions of Aquamet GP 4AM exhibit the following properties:</p> <ul style="list-style-type: none"> • Non-foaming Emulsion Stability in a wide range of water hardness (both natural and synthetic) with no cream or float after 24 hours • Easily disposed of by conventional means • Non-corrosive to non-ferrous metals <p>NOTE: The proper way to form a stable emulsion is to add the oil to the water and stir thoroughly.</p> <p>REMEMBER: O-il I-n L-ast</p>
eni Aster GK 4AM 10	Low viscosity fluids formulated for use in a variety of honing operations. They contain sulfurized fat to provide lubricity, improve surface finish and promote long honing media life.	
eni Stamping Oil F5 4AM	Chlorine-free, compounded mineral oil designed for use in a wide range of metal forming applications including heading, stamping, rolling, drawing, and extruding of aluminum, copper, ferrous and other non-ferrous metals. Formulated with special anti-wear, extreme pressure, and lubricity additives in highly refined base oils. Special lubricity additives impart excellent wetting and oiliness characteristics, which reduce frictional heat and provide smooth surface finish of parts. May be easily removed by conventional solvents and aqueous cleaning techniques. The absence of chlorine allows the product to be used in forming operations on metals and alloys of aluminum and titanium.	<p>APPLICATIONS:</p> <ul style="list-style-type: none"> • Stamping • Cold heading • Rolling • Extruding <p>NOTE: The product contains active sulfur; therefore is not recommended for use with copper and brass alloys.</p>

Gear

Product Name:	Product Description:	Performance Levels/Applications:																
eni Rotra MP LS 4AM SAE 80W-90, 85W-140	<p>Multi-grade, multi-service, extreme pressure gear lubricants which provide excellent protection against shock loading. These products are recommended for automotive and truck rear axles and industrial applications where an API GL-5 product is specified. Rotra MP LS 4AM 80W-90 and 85W-140 lubricants incorporate the best "Clean Gear" technology available today.</p> <p>In addition, Rotra MP LS 4AM lubricants are formulated for service fill of limited slip differentials.</p>	<p>MEETS OR EXCEEDS THE FOLLOWING SPECIFICATIONS:</p> <ul style="list-style-type: none"> • API GL-5 • API MT-1 • SAE J2360 • Mack GO-J 																
eni Rotra LSX Syn 4AM SAE 75W-90, 75W-140, 80W-140	<p>Heavy-duty, extreme pressure, API GL-5 gear lubricants with limited-slip performance. They are formulated using synthetic base oils to provide high viscosity index, exceptionally low pour point and shear stability. They contain extreme pressure additives along with rust, oxidation, and corrosion inhibitors to protect gears and bearings operating in a wide variety of applications and conditions.</p>	<p>MEETS OR EXCEEDS THE FOLLOWING SPECIFICATIONS:</p> <ul style="list-style-type: none"> • API GL-5 • AM MT-1 • MIL-L-2105E • SAE J2360 • Mack GO-J 																
eni Rotra Syn Gear 4AM SAE 75W-90, 80W-140	<p>Engineered to meet demanding extended drain and warranty requirements and are designed for use in heavy-duty applications that require gear lubricants with relatively high viscosity and good load carrying capability and where high pressures and shock loading are expected. They incorporate the latest technology in synthetic basestocks and advanced additives providing advantages over mineral-based gear oils.</p> <p>Delivers enhanced performance for low and high temperature application, protection against thermal breakdown and oxidation, reduced wear and corrosion, improved shear stability, and extended service capability.</p>	<p>APPROVED FOR USE IN FINAL DRIVES BY:</p> <ul style="list-style-type: none"> • Eaton Corporation's Eaton Roadranger (E500) • ArvinMeritor <p>PERFORMANCE LEVELS:</p> <table border="0"> <tr> <td>• API GL-5/MT-1</td> <td>• MB-Approval 235.8 (75W-90)</td> </tr> <tr> <td>• SAE J2360</td> <td>• International TMS-6816</td> </tr> <tr> <td>• ZF TE-ML 07A/08 (75W-90 only)</td> <td>• ZF TE-ML 05B/12B/16f/19C/21B</td> </tr> <tr> <td>• MIL-PRF 2105E</td> <td>• ZF TE-ML 17B (75W-90)</td> </tr> <tr> <td>• Dana SHAES 429</td> <td>• Voith Turbo 3.325-340/3.325-342 (75W-90)</td> </tr> <tr> <td>• Dana SHAES 256 Rev.C (75W-90)</td> <td></td> </tr> <tr> <td>• Mack GO-J PLUS (80W-140)</td> <td></td> </tr> <tr> <td>• ArvinMeritor O-76N</td> <td></td> </tr> </table>	• API GL-5/MT-1	• MB-Approval 235.8 (75W-90)	• SAE J2360	• International TMS-6816	• ZF TE-ML 07A/08 (75W-90 only)	• ZF TE-ML 05B/12B/16f/19C/21B	• MIL-PRF 2105E	• ZF TE-ML 17B (75W-90)	• Dana SHAES 429	• Voith Turbo 3.325-340/3.325-342 (75W-90)	• Dana SHAES 256 Rev.C (75W-90)		• Mack GO-J PLUS (80W-140)		• ArvinMeritor O-76N	
• API GL-5/MT-1	• MB-Approval 235.8 (75W-90)																	
• SAE J2360	• International TMS-6816																	
• ZF TE-ML 07A/08 (75W-90 only)	• ZF TE-ML 05B/12B/16f/19C/21B																	
• MIL-PRF 2105E	• ZF TE-ML 17B (75W-90)																	
• Dana SHAES 429	• Voith Turbo 3.325-340/3.325-342 (75W-90)																	
• Dana SHAES 256 Rev.C (75W-90)																		
• Mack GO-J PLUS (80W-140)																		
• ArvinMeritor O-76N																		
eni Rotra Moly-Tacky 4AM SAE 90, 140	<p>Rotra Moly-Tacky lubricants are specially designed automotive type gear lubricants for use in extreme duty applications. These products have excellent thermal stability, anti-foam inhibitors, outstanding EP characteristics and superb rust, oxidation and corrosion protection.</p> <p>Most gears are designed to be lubricated by a full fluid film which separates the metal surfaces. At start up or during periods of shock loads, this film can be ruptured and wear can possibly occur. By plating itself to metal surfaces, Molybdenum Disulfide forms a lasting solid lubricant film. This solid lubricant film protects the metal surfaces during periods of high shock loads and extreme pressures. The Molybdenum Disulfide also reduces wear that can be experienced during gear operation. By eliminating this frictional wear, the operating temperature of the gear box is reduced. A synthetic polymer is incorporated to aid adhesion to the gear surfaces.</p>	<p>MEETS OR EXCEEDS THE FOLLOWING SPECIFICATIONS:</p> <ul style="list-style-type: none"> • SAE J2360 • API GL-5 																

Product Name:	Product Description:	Performance Levels/Applications:
eni Rotra Red-Tacky 4AM SAE 90, 140	<p>Specially designed automotive type gear lubricants blended from high-quality paraffin base stocks and specially designed additives to provide high temperature protection in excess of more common gear oils on the market.</p> <p>These products contain state-of-the-art Extreme Pressure (EP) additives, foam inhibitors, rust and oxidation inhibitors, plus an adhesive-cohesive additive which allows the lubricant to cling to gears providing instant lubrication.</p>	<p>MEETS OR EXCEEDS THE FOLLOWING SPECIFICATIONS:</p> <ul style="list-style-type: none"> • SAE J2360 • API GL-5
eni Straight Mineral Gear Oil Lubricant SAE 90, 140	<p>Made from premium high viscosity, selected stocks without Extreme Pressure (EP) additives. These lubricants are extremely stable in performance and are highly cohesive which allows them to cling to gear teeth. They contain no compounds which will cause corrosion, etching, or wear on bearings. These products are recommended for high-speed transmissions, transfer cases and final drives requiring straight mineral gear oil.</p>	<p>MEETS OR EXCEEDS THE FOLLOWING SPECIFICATIONS:</p> <ul style="list-style-type: none"> • API GL-1
eni Blasia 4AM ISO VG 68-1000	<p>Designed to provide outstanding Extreme Pressure (EP) and load-carrying characteristics in all types of enclosed gear applications. These oils are recommended for lubrication of industrial spur, helical, bevel and industrial hypoid enclosed gear sets working under heavy or shock loads. They are also effective for use in plain and roller bearings, especially under high load and low speed. These gear oils are inhibited to provide good foam resistance and have superior water separating characteristics which make them ideal for circulating systems where water contamination is a constant hazard.</p> <p>Suited for use in all types of industrial circulating systems and gear applications where a mineral-based EP lubricant is recommended.</p>	<p>MEETS OR EXCEEDS THE FOLLOWING SPECIFICATIONS:</p> <ul style="list-style-type: none"> • D94 • U.S. Steel 224 <p>MEETS PERFORMANCE REQUIREMENTS OF:</p> <ul style="list-style-type: none"> • Cincinnati Machine
eni Blasia SX 4AM ISO VG 68-460	<p>Blasia SX 4AM synthetic industrial EP gear lubricants are premium quality lubricants incorporating polyalphaolefin (PAO) base stocks and select high performance additives. These lubricants provide optimum performance in demanding applications over a wide range of industrial operations especially enclosed gear sets and in heavily loaded plain or roller bearings. The high viscosity index, high flash point and low pour point of these products provide effective lubrication superior to mineral based lubricants.</p>	<p>MEETS OR EXCEEDS THE FOLLOWING SPECIFICATIONS:</p> <ul style="list-style-type: none"> • U. S. Steel 224 • AGMA 9005-D94 • Cincinnati Machine Quality
eni Synthetic Open Gear	<p>Very tacky, black, semi-solid mixture of synthetic additives and a solvent carrier. It is designed to protect and lubricate open gears, chains, cables and sliding surfaces operating under the severest conditions found in mining, cement and steel plants, and marine applications. It provides excellent protection against water, steam and rusting. This product's load carrying ability and adhesiveness is far superior to many asphaltic based open gear compounds.</p>	
eni Rotra FDO 4AM SAE 50, 60	<p>Recommended for Caterpillar final drives and axles that previously specified the use of TO-4 oils and do not contain friction material.</p>	<p>MEETS OR EXCEEDS THE PERFORMANCE REQUIREMENTS FOR:</p> <ul style="list-style-type: none"> • Caterpillar FD-1 Final Drive and Axle Oil <p>Note: Not for use in engines, transmissions, or hydraulic systems.</p>

Hydraulic

Product Name:	Product Description:	Performance Levels/Applications:
eni Oso 4AM ISO VG 10-460	<p>Premium quality, anti-wear hydraulic oils designed for use in all types of hydraulic systems including rotary vane, gear type and piston hydraulic pumps. They are formulated to yield noticeable cost efficiencies including less downtime, reduced maintenance costs, longer change intervals, and extended pump life.</p> <p>Incorporate highly effective zinc anti-wear chemistry with premium base stocks. They possess excellent rust and oxidation inhibitors in addition to superior anti-foam characteristics. Performance tests of thermal stability, wear protection, oxidation stability and hydrolytic stability have also shown excellent results.</p>	<ul style="list-style-type: none"> • Eaton/Vickers M-2950-S, I-286-S • Denison HF-0, HF-1, HF-2 • US Steel 136 • Ford M6C32 • Cincinnati Machine • GM LS-2
eni Oso G2 4AM ISO VG 22- 100	<p>Premium quality, anti-wear hydraulic oils designed for use in all types of hydraulic systems including rotary vane, gear type and piston hydraulic pumps. They are formulated to yield noticeable cost efficiencies including less downtime, reduced maintenance costs, longer change intervals, and extended pump life.</p> <p>Incorporate highly effective zinc anti-wear chemistry with the utilization of Group II base oils. They possess excellent rust and oxidation inhibitors in addition to superior anti-foam characteristics. Performance tests of thermal stability, wear protection, oxidation stability and hydrolytic stability have also shown excellent results.</p>	<ul style="list-style-type: none"> • Eaton/Vickers M-2950-S, I-286-S • Denison HF-0, HF-1, HF-2 • US Steel 136 • Ford M6C32 • Cincinnati Machine
eni Oso S 4AM ISO VG 32, 46, 68	<p>Premium quality, zinc-free, multi-functional lubricants. They are formulated to yield noticeable cost efficiencies including less downtime, reduced maintenance costs, longer change intervals and extended equipment life.</p> <p>Formulated with highly effective, ashless, anti-wear chemistry and incorporate Group II base stocks. They possess excellent rust and oxidation inhibitors in addition to superior anti-foam characteristics. Performance tests of thermal stability, wear protection, oxidation stability and hydrolytic stability have also shown excellent results. All grades have improved biodegradability because of the Group II base oils and zinc-free additive package.</p>	<p>PRODUCT APPLICATION: High-pressure hydraulic & circulating systems requiring a zinc-free product reciprocating and rotary screw air compressors</p>
Multitech Hyd 4AM SAE 10W	<p>A high performance lubricant formulated to satisfy a wide range of heavy-duty hydraulic equipment requirements. Formulated with the highest quality additives and base stocks, Multitech Hyd 4AM delivers excellent protection against oil thickening, high temperature deposits, mechanical and corrosive wear and rusting in a wide range of on- and off-highway hydraulic applications.</p>	

Product Name:	Product Description:	Performance Levels/Applications:
eni Arnica 4AM ISO VG 15-100	Premium quality, multi-viscosity, anti-wear hydraulic oils formulated for use in a wide range of operating temperatures. They provide excellent low temperature flow properties and high temperature, high pressure protection in vane, piston and gear pumps.	<ul style="list-style-type: none"> • Eaton/Vickers M-2950-S, I-286-S • Denison HF-0, HF-1, HF-2 • US Steel 136 • Ford M6C32 • Cincinnati Machine
eni Acer SX 4AM ISO VG 32-680	<p>Premium quality synthetic lubricants formulated to provide optimum performance in demanding applications over a wide range of industrial operations. The high viscosity index, high flash point and low pour point of these products provide effective lubrication superior to mineral based lubricants.</p> <p>Provide superb oxidation control and thermal stability, combined with excellent lubricity and low carbon forming characteristics which can extend drain intervals and maximize equipment life.</p>	<p>RECOMMENDED FOR:</p> <ul style="list-style-type: none"> • Gear applications, however these products are not recommended for use in heavily loaded machinery or where high shock loads occur. Blasia SX 4AM is recommended for such applications.
eni Arnica FR 4AM (Water Glycol)	<p>Premixed, ready-to-use, water glycol hydraulic fluid developed for use in hydraulic systems such as those used in underground mining equipment. Hydraulic sump temperatures where Arnica FR 4AM is used should not exceed 150°F (65.5°C). Otherwise, water loss will occur. Water content should never drop below 30 vol% if adequate fire resistance is to be maintained. Only distilled, deionized, or controlled boiler feed-waters should be used for make-up. Filters, seals, packing, gaskets, pipe joint compounds, paint and metals must be compatible with water glycol fluids</p> <p>Possesses excellent corrosion and pump wear protection. It has an extremely low pour point and excellent viscosity-temperature properties and heat transfer characteristics. Due to its shearing action, there is negligible viscosity loss.</p>	<p>Typical applications for Arnica FR 4AM are hydraulic systems operating up to a maximum 2,000 psi pressure and include die-casting service, steel mills, underground mining and power transmissions.</p>
eni Power Steering Fluid 4AM	<p>Blended with high quality base oils, and a balanced additive package to provide excellent performance in power steering systems. It is suitable for use in most domestic and foreign passenger car and light truck power steering systems.</p>	<p>MEETS THE REQUIREMENTS OF:</p> <ul style="list-style-type: none"> • GM 9985010 (Part No. 1050017) for Saginaw Power Steering Units.

Industrial Engine

Product Name:	Product Description:	Performance Levels/Applications:
eni Gas Engine Oil 4AM SAE 40	Premium mono-grade gas engine oil formulated to provide excellent oxidation, nitration, and thermal stability in modern 4-cycle gas engines. This formulation is balanced to minimize ash deposits, control sludge and varnish buildup under the most severe operating conditions. The low zinc and phosphorus levels make it suitable for use in natural gas fueled engines that utilize exhaust catalytic converters.	<ul style="list-style-type: none"> • API CF • Caterpillar 3500; 3600 • MAN • Jenbacher Type 6 • Waukesha co-gen and VHP
eni Gas Engine Oil 4AM SAE 15W-40	Premium multi-viscosity gas engine oil formulated to provide excellent oxidation, nitration, and thermal stability in modern gas engines. The advanced additive system minimizes ash deposits, controls sludge and varnish buildup under the most severe operating conditions. The low zinc and phosphorus levels make it suitable for use in natural gas fueled engines that utilize exhaust catalytic converters.	<ul style="list-style-type: none"> • API CF • Caterpillar 3500; 3600 • MAN • Jenbacher Type 6 • Waukesha co-gen and VHP
eni Gas Engine Oil NA 4AM SAE 15W-40, 30, 40	Premium quality ashless natural gas engine oil that provides excellent dispersancy with good high temperature detergency and stability with excellent rust corrosion protection and anti-wear properties. The 15W-40 grade has outstanding low temperature starting capabilities.	
eni Non-Detergent Engine Oil 4AM SAE 10, 20, 30, 40, 50	For service typical of older gasoline engines operated under such mild conditions that only minimum protection afforded by compounding is desired. Oils designed for this service provide only anti-scuff capability and resistance to oil oxidation and bearing corrosion.	<p>SUITABLE FOR:</p> <ul style="list-style-type: none"> • Use in reciprocating air compressors that call for a low ash, mineral based lubricant <p>NOT TO BE USED IN:</p> <ul style="list-style-type: none"> • Any automotive type engine unless specifically recommended by the equipment manufacturer

Specialty

Product Name:	Product Description:	Performance Levels/Applications:
eni Ote 4AM ISO VG 100-460	Premium, ashless turbine quality oils which possess excellent resistance to rusting, oxidation, foaming, and separate readily from water. Special inhibitors and the incorporation of a phenolic-free anti-oxidant, plus the utilization of Group II base stocks provide extended service life and excellent filterability.	RECOMMENDED FOR: <ul style="list-style-type: none"> • Steam, gas, and hydraulic turbines, compressors, heat transfer systems, circulating systems and R&O gear applications • Cincinnati Machine • US Steel 120, 125, 135 • Dennison HF-1
eni Alaria 4AM ISO VG 22, 32, 46, 68	Premium rust and oxidation inhibited circulating oils that provide excellent resistance to rusting and foaming and separate readily from water.	Recommended for vacuum pumps, heat transfer systems, friction clutches, and other industrial units where long service life and dependability are required in closed circulating systems
eni Acer SO 4AM ISO VG 5, 10, 22	Highly refined paraffinic type spindle oils specially formulated to meet the severe lubrication demands of high speed rolling bearings on the spindles of automated machine tools. These spindles turn up to 13,000 rpm and require premium grade products such as Spindle Oils which are highly oxidation stable, resist system rusting, and possess good anti-wear properties. Products are made with Group II base oils.	
eni Exidia EP 4AM ISO VG 32, 68, 100, 220	Way lubricants compounded from paraffinic base stocks which have been fortified with selected oiliness, extreme pressure additives and a special material to impart tackiness and adhesiveness.	Lubricates all types of machine tools and other types of equipment requiring tacky, non-corrosive products having extreme pressure properties. They reduce machine tool carriage chatter and possess the necessary adhesive characteristics to prevent squeezing out of lubricant and provide excellent demulsifying characteristics in the presence of soluble oils. The low coefficient of friction ratio (static/kinetic) of these products provides freedom from stick-slip operation, allowing carriages to start easily and smoothly even after standing overnight.
eni Oso WL 4AM ISO VG 32, 68	Sliding surface lubricant is used where machine tool ways are lubricated by bleeding oil from the hydraulic system. It possesses the lubricity necessary to eliminate chatter and stick-slip of tables under moderate load conditions, while having sufficient chemical stability for service as a hydraulic fluid in non-critical systems.	
eni Compound Cylinder Oil 4AM ISO VG 460, 680, 1000	Along with high VI, foam resistance and rust protection properties, Compound Cylinder Oil possesses excellent lubricity and wetability characteristics. It contains stable fatty additives in specially selected heat resistant petroleum base oils. In addition to possessing the ease of atomization and wetability required for effective steam engine lubrication, it separates readily from steam condensate.	Used as a steam cylinder lubricant and a worm gear lubricant
eni Form Oil Plus 4AM ISO VG 5, 22, 32, 46, 460	A compounded lubricant containing stable fatty additives used as a concrete form release agent. Special ingredients prevent bonding between the form and concrete and allow the form to break away with minimum effort, leaving smooth concrete surfaces.	Form Oil Plus is suitable for both wooden and metal forms.

Product Name:	Product Description:	Performance Levels/Applications:
eni Form Oil DT Special eni Form Oil DT 5	Formulated with very effective wetting agents which help coat the form with an ultra-thin oil film. In addition, surface-active additives in these products provide a high level of corrosion protection. Consequently, forms do not require frequent cleanup while "hang up" and excessive deposits on the form edges are virtually unknown.	DT Special - Pour Point: +10°F; Viscosity cST@40°C: 9.6 DT 5 - Pour Point: -18°F; Viscosity cST@40°C: 5.2
eni Air Tool 4AM ISO VG 32, 46	Designed to extend the life of pneumatic tools. It is specially formulated with rust inhibitors, anti-foaming and anti-wear additives to maximize tool performance. The oil can be placed into tools by an in-line lubricator or by pouring directly into the tool.	
eni Celtis 4AM ISO VG 10-460	A series of paraffinic process oils are derived from highly refined paraffinic crudes. They possess excellent water separating characteristics and low pour points. They are suitable for applications where non-additive paraffinic oils are required.	
eni Napthenic Process Oil NV 100 eni Napthenic Process Oil NV 200 eni Napthenic Process Oil NV 300 eni Napthenic Process Oil NV 850	Severely hydrotreated naphthenic base oil primarily used in the metal working and compounder blending industries. It has a low pour point, a low odor level, excellent color, and resistance to discoloration by heat or ultraviolet light.	
eni Blasia RD 4AM ISO VG 46, 100, 150, 220, 320	Formulated to provide Extreme Pressure (EP) capability, rust and corrosion protection, tackiness for adherence to drill surfaces, and good emulsion and antifoam characteristics. These products are recommended for lubricating all makes of pneumatic percussion tools operating at ambient temperatures ranging upward from -30°F under either wet or dry conditions.	RECOMMENDED TEMPERATURE GUIDELINES: • Ambient Temperature ISO Grade(s) • Below 40°F; 46 • 40°F to 80°F; 100-220 • 80°F to 100°F; 220, 320
eni Undercoat, Black Airless 4AM	An asphaltic-based underbody protection product manufactured with mineral spirits, rust inhibitors and select fillers. This thixotropic gel cures to form a tough, monolithic, tack-free black film. It provides excellent corrosion resistance and sound deadening properties. Primarily intended for automotive, truck and trailer underbodies. It may be used on any metal surfaces where corrosion and sound deadening properties are desired.	

Product Name:	Product Description:	Performance Levels/Applications:
eni Rustproof Compound 335	<p>A petroleum-based product with inhibitors designed to prevent corrosion on iron and steel. The product is cut with a solvent for ease of spraying.</p> <p>A soft film type which surface hardens and which has the ability to form a waterproof, non-hardening, self-sealing film which will creep into seams and penetrate existing rust.</p>	
eni Rustia 221 4AM eni Rustia 226 4AM	Designed to separate water displaced from metal surfaces after machining operations or after alkali cleaning and they are also used to loosen corroded nuts and bolts.	Recommended as a temporary rust preventive oil for sheet steel and steel parts stored under indoor conditions.
eni Bar & Chain Lubricant	Compounded with special additives to enhance its performance in any chain lubrication application. Increased tackiness additive prevents sling-off when the chain is traveling at high speeds thereby reducing consumption. An effective anti-wear additive and high viscosity assures maximum wear protection for both chain, bar, and sprocket when making deep cuts at high speeds.	
eni Safety Solvent	An excellent cleaning agent for machine parts. It can be used in any application for which stoddard solvent is currently being used. In addition to its superior cleaning qualities, it has a high flash point which reduces risk of fire and does not contain chlorinated hydrocarbons which are an environmental hazard.	
eni DOT 4 Brake Fluid	Offers improved safety over conventional types of brake fluids by chemically changing accumulated water in the system. In this way, it reduces the effect of water on the boiling point of the fluid and, therefore, greatly diminishes the chance of vaporization and, consequently, brake failure due to vapor lock when the braking areas become overheated.	<ul style="list-style-type: none"> • High performance for drum, disc, and ABS brakes • Meets SAE & Federal Specifications • High dry boiling point, minimum of 480°F • Superior corrosion resistance
eni Wire Rope Lube	<p>Premium fluid product that provides high load carrying capacity, excellent corrosion resistance, and resistance abrasion resistance when properly applied to wire wound rope. In addition, it has superior lubrication performance, protects sheaves, drums, pins, and rollers from excessive wear and eaves a non-tacky coating which resists abrasive contaminants.</p> <p>This product contains a petroleum solvent to enhance penetration into the rope.</p>	

Grease

Product Name:	Product Description:	Performance Levels/Applications:
eni Advantage Plus EP Moly NLGI 1,2	<p>Advantage Plus EP Moly Grease is a high performance extended service grease, formulated to provide excellent extreme pressure and stay-in-place properties with balanced mobility/pumpability across a wide ambient temperature range.</p> <p>Advantage Plus EP Moly Grease provides extremely high load carrying capabilities to ensure strong protection to component parts during extreme pressure and shock loading. Eni Advantage Plus EP Moly grease employs environmentally safe chemistries free of halogens and heavy metals, in an alkalinity-balanced Aluminum Complex thickener system.</p>	
Autol Top 2000	<p>Autol Top 2000 is an NLGI #2 super longtime grease on synthetic polymer-mineral oil base with superior adhesive qualities. Autol Top 2000 is a light green colored, transparent grease which can be easily applied with grease guns. The EP additives are provided high pressure properties which prevent excessive wear even under extreme conditions. Autol Top 2000 also guarantees excellent corrosion protection, due to the special calcium soap combined with the polymer base. It fulfills its function perfectly in the presence of water, even sea water. No water washout effect on bearings and prolonged greasing intervals are possible as the grease is extremely stable.</p>	For industrial, high-load steel mill applications
Blue Lightning EP 2	<p>Blue Lightning is a non-soap thickened Polyurea high-performance grease fortified with rust and oxidation inhibitors, as well as extreme pressure additives. Blue Lightning offers a dropping point over 500 °F. It performs well in area were water washout is a major problem. The physical and chemical properties of Blue Lightning make it a superb all-purpose lubricating grease.</p>	Meets NLGI GC-LB Certification
eni Lithium EP NGLI 000, 00, 0, 1, 2	<p>Premium 12-Hydroxy Lithium Stearate grease containing EP additives. They are brown, buttery lithium soap, oxidation and rust resistant greases. These greases are sheer stable and provide high load-carrying capacity, excellent rust protection, corrosion resistance, and resistance to water washout. Products are designed to lubricate ball and roller bearings for prolonged periods.</p>	
eni Lithium Moly EP 2	<p>Premium lubricating grease containing lithium 12-hydroxystearate and molybdenum disulfide for operations where greased components are subject to heavy loading. This grease has good mechanical stability, water resistance, rust preventative qualities and oxidation stability.</p>	<p>Lithium Moly EP-2 is suited for use in industrial equipment, automotive, construction and mining vehicles such as bulldozers, scrapers, loaders, shovels and off-highway trucks.</p> <p>NOTE: Grease containing molybdenum disulfide are not recommended for automotive wheel bearings.</p>

Product Name:	Product Description:	Performance Levels/Applications:
eni Superplex EP 0, 1, 2	Premium, general purpose red lithium complex grease combining the latest in thickener technology with select paraffin base stocks to insure superior high temperature performance, rust protection, anti-wear characteristics and excellent water washout protection. With a high dropping point, Superplex EP can be used for all automotive, commercial and industrial applications where an extreme pressure, high temperature grease is required. Superplex EP-2 meets NLGI GC-LB requirements for wheel bearing and chassis lubrication. Superplex EP is especially suited for off-road applications where conditions are severe such as the mining, logging, marine, and steel industries.	Meets NLGI GC-LB Certification
eni Synplex EP 2	A premium, high temperature, all-purpose lithium complex lubricating grease formulated with 100% synthetic hydrocarbon fluids (PAO). Formulated with a special additive package which insures high film strength, extreme pressure (EP) and anti-wear properties. In addition, this product has a high dropping point in excess of 500°F as well as exhibiting excellent low temperature performance to temperatures of -40°F (-40° C).	
eni Traction Motor Grease	Lithium-based lubricating grease formulated with rust and oxidation inhibitors and sulphur/phosphorus extreme pressure additives. It has been designated specifically for locomotive traction motor gear cases.	MEETS THE PERFORMANCE LEVEL OF: • EMD EMS-1045

Due to continual research and development, the information contained herein is subject to change without notice. Always follow manufacturers' recommendations for lubricant performance, viscosity grade and oil change interval as these may vary depending on ambient temperature, fuel composition, model year and environment of operation.



eni usa r&m

485 Madison Avenue
New York, NY 10022 USA
(646) 264-2100
eni.com/na

United States Sales

539 Marwood Road
Cabot, PA 16023
(800) 922-9243

Canadian Sales

8000 Jane Street
Tower B, Suite 203
Vaughan, ON L4K 5B8
(866) 232-6070