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Puma Lubricants. Certified quality that keeps you moving.

We are all looking for reliability and performance from our vehicles and equipment, whether competing in a long distance off road race or merely going to the local convenience store.

Puma Lubricants has a high quality range of products which offers both reliability and performance while catering for all customer needs.

From long haul truck drivers to mining operations, from taxi’s and public transport operators to your very own pride and joy at home, Puma Lubricants are at your service.

Puma’s dedicated team of experienced experts work harder and longer to ensure that we deliver on our promise to guarantee you certified quality lubricants which keeps you moving.
Our engine oils are produced out of Group II base oils. These are of a higher quality and offer improved wear protection to engines. Group II base oils are issued from a higher refining process (hydrofinishing) than Group I base oils. Group II base oils benefits include:

- Improved oxidation stability due to higher saturation levels reducing potential chemical reactions between oil, metals, temperature and oxygen which can form corrosive acids, varnish and sludge.

- Lower base oil sulphur content, thereby increasing oxidation stability by reducing risks of acid formation when the lubricant is exposed to high temperatures, moisture and oxygen.

- Improved Viscosity Index offering improved thermal stability, thereby maintaining a lubricant film when the engine oil is exposed to high temperatures.

- Prevents metal-to-metal contact by maintaining a lubricant film.

- Resists thermal degradation which prevents the formation of deposits at high temperatures.

- Lower volatility which is a function of molecular sizes. It directly affects the oil performance by reducing oil consumption and avoiding deposits.

- Improved fuel economy thanks to low viscosity reducing friction forces which translates directly into greater energy efficiency.
Benefits

- Anti-wear protection - longer equipment life
- Oxidation resistance - longer oil life
- High detergency - increased engine cleanliness
- Antifoam - increased performance
- Low pour point - easy start up in colder conditions to protect moving parts
- Anti-corrosion & anti-rust properties
- Demulsibility - engine life extension

Engine Oils
Puma Power Motor Oil 15W-40 has been formally approved by various OEM’s (Original Equipment Manufacturers) such as Volvo (VDS-3 Approval), Cummins (CES 20077 & 20078 Approvals), Mercedes Benz (MB-Approval 228.3), MAN (M3275-1 Approval), Renault (RLD-2 Approval) and Mack (EO-N Approval). This highlights the considerable quality of Puma Power Motor Oil 15W-40. Successfully obtaining these specifications entails that it can be used for Diesel engines using EGR (Exhaust Gas Recirculation). The oil has less than 1.5% sulphated ash, thereby not blocking DPF (Diesel Particulate Filter). Puma Power Motor Oil 15W-40 effectively handles soot and has a TBN (Total Base Number) higher than 10,18 mgKOH/g which is specifically required for extended oil drain intervals.
Description

Puma Diesel Engine Oils are high quality multi-grade long drain lubricating oils, primarily manufactured from Group II base oils. Specially developed for use in all types of high output normally-aspirated and supercharged diesel engines operating under very severe duty or which are subject to deposit formation or excessive wear due to design characteristics or to the fuel employed. These oils are formulated from selected base stocks with high viscosity index and low pour point. These oils are treated with a large percentage of additives to impart superior detergency together with high dispersant, anti-oxidant, anti-corrosion, anti-wear and anti-foam properties.

Product Specifications

Puma Power Motor Oil 15W-40

Meets the requirements of the following specifications:
- ACEA: E7, A3/B4-04
- CAT: ECF-2 (Self-certified)
- DEUTZ: DQC-II-05
- MTU: Type 2

Formal OEM-Approvals Letters:
- MB-Approval 228.3
- Volvo VDS-3
- MAN: 3275-1
- RENAULT VI RLD-2
- MACK: EO-N
- Cummins: CES 20077/20078

Puma Premium Motor Oil 15W-40

Meets the requirements of the following specifications:
- API: CI-4+/SL
- ACEA: E3/B4
- MB 228.3
- MAN: 3275-1
- RENAULT VI RLD-2
- DEUTZ: DQC III-10
- Volvo VDS-3
- CAT: ECF-2
- CUMMINS: CES 20077/20078
- MACK: EO-N
Puma Semi-Synthetic Diesel High Performance Oils

Product: Puma Diesel Engine Oil 10W-40  
Category: Engine Oils  
Code: 21114

Description

Puma Diesel Engine Oil 10W-40 is a high quality multi-grade long drain lubricating oil, manufactured from Group II & III base oils. Specially developed for use in all types of high output normally-aspirated and supercharged diesel engines operating under very severe duty or which are subject to deposit formation or excessive wear. Fully loaded fleet engines are protected during long haul trips through the toughest roads thanks to Group II base oil technology. This oil is low SAPS and provides fuel efficiency. Puma Diesel Engine Oil 10W-40 is formulated from selected base stocks with a high viscosity index and low pour point. It is treated with a large percentage of additives to impart superior detergency together with high dispersant, anti-oxidant, anti-corrosion, anti-wear and anti-foam properties. Transport companies can directly benefit from a lower cost of ownership through fuel efficiency and engine life extension.

Product Specifications

Meets the requirements of the following specifications:
- ACEA: E4/E7-12
- API: CI-4
- Cummins: CES 20077/78
- Scania: LDF-2

Formal OEM-Approvals Letters:
- MB-Approval 228.5
- Volvo VDS-3
- MACK: EO-N
- RENAULT VI RLD-2
- MAN: M3277
Puma Multi-Grade Performance Oils

Product: Puma HDX Motor Oil 15W-40 Code: 21112
Category: Engine Oils

Description
Puma HDX Motor Oil 15W-40 is a high quality lubricating oil specially developed for use in all types of high output normally-aspirated and supercharged diesel engines operating under very severe duty or which are subject to deposit formation or excessive wear due to design characteristics or to the fuel employed. This oil is formulated from selected base stocks with high viscosity index and low pour point. Puma HDX Motor Oil 15W-40 is treated with a large percentage of additives to impart superior detergency together with high dispersant, anti-oxidant, anti-corrosion, anti-wear and anti-foam properties.

Product Specifications
Meets the requirements of the following specifications:
- API: CF-4/CF/SJ
- MB 228.1
- MAN: 3271
- Volvo VDS
- DEUTZ: DQC-I-05
- MTU: Type 1
Puma Monograde Performance Oils

**Product:** Puma Motor Oil SAE 10  
**Code:** 21101

**Product:** Puma Motor Oil SAE 30  
**Code:** 21102

**Product:** Puma Motor Oil SAE 40  
**Code:** 21103

**Product:** Puma Motor Oil SAE 50  
**Code:** 21104

**Category:** Engine Oils

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**Description**

**Puma Monograde Motor Oils** are high quality lubricating oils specially developed for use in all types of high output normally-aspirated and supercharged diesel engines. This includes those operating under very severe duty, those which are subject to deposit formation, excessive wear due to design characteristics or to the fuel employed. These oils are formulated from selected base stocks with high viscosity index and low pour point. These oils are treated with a large percentage of additives to impart superior detergency together with high dispersant, anti-oxidant, anti-corrosion, anti-wear and anti-foam properties.

**Product Specifications**

Puma Motor Oil SAE 10  
*Meets the requirements of the following specifications:*

- API: CF-4/SJ
- CAT: TO-2
- Allison C-3

Puma Motor Oil SAE 30  
*Meets the requirements of the following specifications:*

- API: CF-4/SJ
- Allison C-3

Puma Motor Oil SAE 40  
*Meets the requirements of the following specifications:*

- API: CF-4/SJ
- Allison C-3

Puma Motor Oil SAE 50  
*Meets the requirements of the following specifications:*

- API: CF-4/SJ
Puma Hydraulic Oils reduce wear, metal transfer and filtration issues while improving performance on valves and solenoids. They handle demanding duty cycles and resist oil degradation at higher operating temperatures. Puma Hydraulic Oils are manufactured from high quality base stocks with a higher additive treat rate: this is evident in the vast number of OEM specifications claimed as well as the advanced physical characteristics of the products.

Puma Hydraulic Oils are manufactured from an additive package that ensures reliability and performance for modern hydraulic equipment. These oils contain a foam inhibitor as well as anti-wear agents. Puma Hydraulic Oils are suitable for use in industries as wide-ranging as construction, manufacturing, mining, fishing and marine.
Benefits

- Antiwear protection - longer equipment life
- Oxidation resistance - longer oil life
- Antifoam - increased performance
- High filterability
- Easy start up in colder conditions to protect moving parts
- Anti-corrosion & anti-rust properties
- Demulsibility - component life extension
- Extremely high viscosity index (HVI hydraulic oils)
**Product Specifications**

**Puma Hydraulic Oil 32 V / 46 V / 68 V**

*Meets the requirements of the following specifications:*

- ISO-L-HV High Viscosity Index Oil
- DIN 51524 t.3 HVLP (ISO VG from 32 to 150)
- AFNOR NF E 48603 HV
- AISE (US Steel) 126, 127
- BS 4231 HSD
- CETOP RP 91 H HM
- EATON VICKERS I-286-S3 (ISO VG from 46 to 68)
- EATON VICKERS M-2950
- PARKER HANNIFIN (DENISON) HF-0 (ISO VG from 32 to 68)
- ASTM D6158
- BOSCH REXROTH RE 90220-1/11.02
- MAG IAS (ex Cincinnati) ISO VG 46 - P 68; ISO VG 46 - P 70; ISO VG 68 - P 69
- SAUER-DANFOSS 520L0463 Rev.F
- LINDE
- ZF TE-ML 12
- ISO L-HV (ISO VG from 32 to 150)
**Product:** Puma Hydraulic Oil 10  
**Code:** 21206

**Product:** Puma Hydraulic Oil 32  
**Code:** 21201

**Product:** Puma Hydraulic Oil 46  
**Code:** 21202

**Product:** Puma Hydraulic Oil 68  
**Code:** 21203

**Product:** Puma Hydraulic Oil 100  
**Code:** 21205

**Category:** Hydraulic Oils

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**Description**

**Puma Hydraulic Oils** are formulated from mineral base oils providing excellent anti-wear, anti-forma and oxidation resistance. These products are ideal for operations with moderate operating temperatures and medium-to-heavy loading applications. **Puma Hydraulic Oils** are perfect for mining applications, manufacturing plants and construction equipment.

**Product Specifications**

**Puma Hydraulic Oil 10 / 32 / 46 / 68 / 100**

*Meets the requirements of the following specifications:*

- DIN 51524 t.3 HVLP (ISO VG from 10 to 150)
- AFNOR NF E 48603 HM
- AISE (US Steel) 126, 127
- BS 4231 HSD
- CETOP RP 91 H HM
- EATON VICKERS I-286-S3 (ISO VG from 46 to 68)
- EATON VICKERS M-2950
- PARKER HANNIFIN (DENISON) HF-0 (ISO VG from 10 to 68)
- ASTM D6158
- SAE MS 1004
- BOSCH REXROTH RE 90220-1/11.02
- SAUER-DANFOSS 520L0463 Rev.F
- LINDE
- ZF TE-ML 12
- ISO L-HV (ISO VG from 10 to 150)
Benefits
- Antiwear protection – longer equipment life
- Oxidation resistance – longer oil life
- Non-corrosiveness
- Non-toxic
- Frictional performance

Gear Oils
Product: Puma Gear Oil 80W-90 GL-4  Code: 21301
Category: Gear Oils

Description
Puma Gear Oil 80W-90 GL-4 is an EP (Extreme Pressure) oil formulated for lubricating heavy duty manual transmissions axles and final drives requiring API GL-4 performance. Technology of raw materials used in the formulation of this lubricant allows complying with OEM requirements such as IVECO, MAN & MB. They are also suitable for use in gear-boxes, final drives and power take-offs on farm and earth-moving machinery.

Product Specifications
Meets the requirements of the following specifications:
- API: GL-4
- MAN: 341 Type Z2
- ZF TE-ML 02B, 08
- MB 235.5
- IVECO
- EATON

Product: Puma Gear Oil 80W-90 GL-5  Code: 21302
Category: Gear Oils

Description
Puma Gear Oil 80W-90 GL-5 is an EP (Extreme Pressure) gear oil for very highly loaded gears. It can also be used in automotive applications including heavy duty axles, conventional gear-boxes and steering-boxes on cars and trucks, gear-boxes, final drives, power take-offs on farm and earth-moving machinery where API GL-5 is required. It can thus be used for lubricating all gears and all material types, ideally for light motor vehicle manual transmissions.

Product Specifications
Meets the requirements of the following specifications:
- API: GL-5
- MAN: 342 Type M2

Product: Puma Gear Oil 85W-140 GL-5  Code: 21303
Category: Gear Oils

Description
Puma Gear Oil 85W-140 GL-5 is an EP (Extreme Pressure) gear oil for highly loaded gears. It can be used in automotive applications including heavy duty axles, conventional gear-boxes and steering-boxes in cars and trucks, final drives, power take-offs on farm and earth-moving machinery where GL-5 is required. Puma Gear Oil 85W-140 GL-5 can essentially be used for lubricating all gears and all material types, including heavily loaded differentials.

Product Specifications
Meets the requirements of the following specifications:
- API: GL-5
- MAN: 342 Type M2
- ZF TE-ML 05A, 07A, 12E, 16B, 16C, 17B, 19B, 21A (SAE 85W-140)
**Product:** Puma LS 80W-90 GL-5  
**Code:** 21305

**Category:** Gear Oils

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**Description**

Puma LS 80W-90 GL-5 is a limited slip differential transmission oil for modern truck and automotive equipment applications which place higher performance demands on drive train lubricants. This includes those with higher speeds, higher torque and heavier loads. Limited-slip capability requires improved formulations to maximise differential life and optimize performance. Longer service intervals place additional demands on the gear lubricant. Puma LS 80W-90 GL-5 is engineered to meet these challenges.

**Product Specifications**

*Meets the requirements of the following specifications:*

- API: GL-5 LS
- API: MT-1
- SAE J2360
- Scania STO 1:0
- Mack GO-J / GO-J plus

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**Product:** Puma LS 85W-140 GL-5  
**Code:** 21304

**Category:** Gear Oils

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**Description**

Puma LS 85W-140 GL-5 is a Limited Slip Differential transmission oil for modern truck and automotive equipment applications which place higher performance demands on drive train lubricants. This includes those with higher speeds, higher torque, heavier loads. Limited-slip capability requires improved formulations to maximize differential life and optimize performance. Longer service intervals place additional demands on the gear lubricant. Puma LS 85W-140 GL-5 gear lubricant is engineered to meet these challenges.

**Product Specifications**

*Meets the requirements of the following specifications:*

- API: GL-5 LS
- API: MT-1
- SAE J2360
- Scania STO 1:0
- Mack GO-J / GO-J plus
Benefits

- Antiwear protection – longer equipment life
- Extreme pressure performance
- Oxidation resistance – longer oil life
- Antifoam – increased performance
- Non-corrosiveness
- Non-toxic
- Protection against micro pitting
- Anti-corrosion & anti-rust properties
- Demulsibility – component life extension

Industrial Gear Oils
**Product:** Puma Industrial Gear Oil 68  
**Code:** 21401  
**Product:** Puma Industrial Gear Oil 150  
**Code:** 21402  
**Product:** Puma Industrial Gear Oil 220  
**Code:** 21403  
**Product:** Puma Industrial Gear Oil 320  
**Code:** 21404  
**Product:** Puma Industrial Gear Oil 460  
**Code:** 21405  
**Product:** Puma Industrial Gear Oil 680  
**Code:** 21406  
**Product:** Puma Industrial Gear Oil 1000  
**Code:** 21408  
**Category:** Industrial Gear Oils

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**Description**

*Puma Industrial Gear Oils* have been developed to meet the widest range of requirements of EP (Extreme Pressure) lubrication, such as gears operating under severe duty (ISO-L-CKD classification). These oils are formulated from high quality base stocks and technology advanced additive packs, such as sulphur compounds (which ensure good high-speed and shock-load performance) and phosphorus compounds (for low-speed and high-load performance).

*Puma Industrial Gear 68, 100 & 150* have been designed for smaller lightly loaded high speed gearboxes.

*Puma Industrial Gear Oil 220, 320 & 460* have been designed for medium-to-large highly loaded gearboxes at medium speed.

*Puma Industrial Gear 680 & 1000* have been designed for larger gearboxes which are extremely loaded and operate at a lower speed.

**Product Specifications**

*Puma Industrial Gear Oil 68 / 100 / 150 / 220 / 320 / 460 / 680 / 1000*

*Meets the requirements of the following specifications:*

- AISE 224
- AGMA 9005 – E02
- FAG FE-8
- DIN 51517 part 3
- DAVID BROWN S1.53.101
Description

Puma Synthetic Industrial Gear Oils have been developed to operate in the most severe of operating conditions. They reduce friction, increase energy efficiency and have a long service life. These oils are formulated from High Quality PAO (Poly Alpha Olefin) base stocks and unique technology advanced additive packs, such as sulphur compounds (which ensure good high-speed and shock-load performance) and phosphorus compounds (for low-speed and high-load performance).

Puma Synthetic Industrial Gear Oil 150 & 220 have been designed for smaller high speed long drain gearboxes where there is a risk of micro-pitting.

Puma Synthetic Industrial Gear Oil 320 & 460 have been designed for modern medium-to-large gearboxes operating high to low speed where there is a risk of micro-pitting. It is also recommended for use in underground mining and construction industry.

Product Specifications

Puma Synthetic Industrial Gear Oil 150 / 220 / 320 / 460

Meet the requirements of the following specifications:

- AGMA 250.04
- ISO 12925-1 CKC
- ISO 6743-6 CKC
- DIN 51517 Part 3
- DAVID BROWN S1.53.101
- US Steel 224
- Meets specification for Flender and Siemens MD
- David Brown

Product: Puma Open Gear Clear  
Category: Industrial Gear Oils  
Code: 21412

Description:

Puma Open Gear Clear is an advanced part-synthetic, non-bitumen based open gear lubricant. The combination of additives includes extreme pressure additives to satisfy the lubrication demands of mill roller bearings and open gears. It is a particularly viscous lubricant specifically developed to operate in heavily loaded open gears of sugar mill crushers, drag lines, kilns and wire rope applications.

Applications:

Puma Open Gear Clear is designed to meet the difficult duty cycles of lubricating medium-to-large size girth gears.
Benefits

- Antiwear protection – longer equipment life
- Extreme pressure performance
- Oxidation resistance – longer oil life
- Antifoam – increased performance
- Non-toxic
- Demulsibility – component life extension
- Anti-corrosion & anti-rust properties
- Frictional performance

Transmission Oils
Description
Puma Transmission TO-4 Oils are specialized lubricants suitable for use in Caterpillar machinery. They are used for the lubrication of power shift, direct drive transmissions, final drives, differentials, winches, clutch plates, gears and bearings.

Product Specifications
Puma Transmission Oil TO-4 SAE 10W / 30 / 50 / 60
Meets the requirements of the following specifications:
- Caterpillar: TO-4
- ALLISON C-4
- API: GL-4
- KOMATSU KES 07.868.1
- DANA
- Vickers M-2950-S
- EATON-Fuller
- EUCLID
- TREMAC/TTC

Description
Puma ATF II is a specialized fluid employed mainly in modern automatic transmissions and in many other applications where very low temperature performance, stability to mechanical loads and high viscosity index is required. Puma ATF II is specifically designed for filling and topping-up automatic transmission built by equipment manufacturers who recommend the use of GM ATF II type products and for power steering applications.

Product Specifications
Meets the requirements of the following specifications:
- GM Dexron II D
- MB 236.1
- VOITH: 55.6335
- MAN: 339 Type V-1, Z-1
- ZF TE-ML 02F, 3D, 4D, 14A, 17C
- Allison C-4
Product: Puma ATF III  
Code: 21505

Category: Transmission Oils

Description
Puma ATF III is a special fluid employed mainly in modern automatic transmissions and in many other applications where very low temperature performance, stability to mechanical loads and high viscosity index are required. Puma ATF III is specifically designed for filling and topping-up automatic transmissions built by equipment manufacturers who recommend the use of GM ATF III type products, Ford Mercon, Allison C4 specifications and the European OEM requirements.

Product Specifications
Meets the requirements of the following specifications:
- General Motors ATF III (G-34193)
- Allison C4 (C4-22452596)
- BMW
- MB 236.1 / 236.5
- Ford MERCON
- MAN: 339 Type F
- VOITH: G 607
- ZF TE-ML 04D, 17C

Product: Puma Synthetic ATF  
Code: 21507

Category: Transmission Oils

Description
Puma Synthetic ATF is a fully synthetic Poly-Alpha-Olefin (PAO) based product that outperforms conventional automatic transmission fluids and helps to provide outstanding resistance to oil breakdown and deposits. The inherently high viscosity index and stability of Puma Synthetic ATF helps to protect against thermal breakdown at high operating temperatures, while still providing outstanding performance at ambient temperatures as low as -54º C. Further, it helps to improve overall transmission durability and cleanliness.

Product Specifications
Meets the requirements of the following specifications:
- Dexron III H
- Dexron III G
- Ford MERCON
- Allison C-4
- CAT: TO-2
- M2C138-CJ
- M2C166-H
- Power steering
- Allison TES 295/468
Benefits
- Extreme pressure performance
- Multipurpose characteristics
- Chemical stability
- High dropping point
- Rust protection
- Water resistance
- Anti-corrosion & anti-rust properties
- Lubricating properties
- Highly adhesive
**Product:** Puma LX 2  
**Category:** Greases  
**Code:** 21701

**Description**
Puma LX 2 is a non-melting grease formulated from Lithium complex which forms a gelling substance giving a light-brown product with a smooth-textured appearance. It can be specifically used to lubricate hub bearings on wheels with disc brakes to handle excessive heat. Puma LX 2 has high loading capabilities as well as water wash out resistance.

**Performance Specifications**

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<tr>
<th>Product</th>
<th>NGLI 2</th>
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<tbody>
<tr>
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<tr>
<td>DIN 51 815</td>
<td>KP2K -20</td>
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</tbody>
</table>

**Product:** Puma MOLY 2  
**Category:** Greases  
**Code:** 21704

**Description**
Puma MOLY 2 is a grey-black, smooth-textured, lithium-base grease containing molybdenum (3%) disulphide. It is specifically designed for pin-and-bush applications where there are heavy loaded joints with a repetitive duty cycle. The Moly imparts itself onto the metal surface thus preventing metal-to-metal contact and preventing seizure of the pins and bushes which extends their lifespan.

**Performance Specifications**

<table>
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<tr>
<th>Product</th>
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<td>DIN 51 815</td>
<td>KP2K -20</td>
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</tbody>
</table>

**Product:** Puma SCI 2  
**Category:** Greases  
**Code:** 21705

**Description**
Puma SCI 2 is top quality water-resistant grease. It is a modern; high-tech formulated grease for use in the industrial applications. Puma SCI 2, is the ideal lubrication grease for all types of bearings (plain, roller, ball, needle, etc) oven conveyor bearings, roll neck bearings, slides, kiln gears, pin and bush on draglines, cranes, loaders, pulleys, universal joints, track rollers, chains, pivots, scraper winches, mill stands and continuous casting rollers.

**Performance Specifications**

<table>
<thead>
<tr>
<th>Product</th>
<th>NGLI 2</th>
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<td>DIN 51 815</td>
<td>KP2K -20</td>
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</table>
Description

Puma EP range of greases are lithium based and contain Extreme Pressure (EP) additives. The grease is yellow-brown, slightly-fibrous and smooth in texture. Puma EP range is multi-purpose where 1 and 2 can be used in automated lubrication systems, while 1, 2 and 3 can be used in manual lubrication systems.

Performance Specifications

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</tbody>
</table>

Description

Puma Wire Rope Grease is a new generation of wire rope lubrication. It maintains low friction qualities with positive anti-wear protection and is designed not to fling off ropes. This allows for a cleaner and safer work environment. It is formulated to prolong the life of wire rope shears and support cables. This lubricant has anti-fretting and anti-corrosion additives providing full protection against corrosion and wear.
Benefits

- Anti-oxidant performance

Rock Drill Oils
Description

Puma Rock Drill Oils are specially formulated with tackifiers, corrosion inhibitors and emulsifiers. It is recommended for most machinery lubricated by means of oil circulation systems. Applications may vary in mining, quarrying, construction, roadworks, tunnelling and excavations.

Performance Characteristics

Puma Rock Drills Oils are especially suitable for use in oil circulation lubrication systems for bearings, gears, and all crankcase mechanisms in machinery such as pumps, engines, compressors, tools and industrial machinery in general where lubricants with additives are not required.
**Product:** Puma Heat Transfer 32  
**Code:** 21803  
**Category:** Specialities

**Description**
Puma Heat Transfer 32 is used for filling heat transfer units. It has excellent oxidation stability and withstands thermal decomposition. It is formulated from carefully selected paraffinic base stocks.

**Performance Characteristics**
Puma Heat Transfer 32 can be used in all “open” or “closed” type units with:
- Maximum boiler outlet temp: 300°C
- Maximum boiler wall temp: 315°C

When heat transfer oil is exposed to higher operating temperatures the shorter the oil life becomes. Puma Heat Transfer 32 has great resistance to higher operating temperatures hence extending the oil life.

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**Product:** Puma Brake Fluid DOT 4  
**Code:** 21808  
**Category:** Specialities

**Description**
Puma Brake Fluid DOT 4 is a yellow-coloured liquid, formulated for use in all disc, drum braking systems and in clutch control systems. It is also specifically suitable for those cases where the braking system are subjected to very severe operating conditions such as, cars pulling caravans, commercial vehicles and any heavy loaded operations.

**Performance Characteristics**
*Meets the requirements of the following specifications:*
- SAE J 1703
- F.M.V.S.S. No.116 DOT3 and DOT4
- ISO 4925
- CUNA NC 956 DOT4
Product: Puma Transformer Oil    Code: 21809
Category: Specialities

Description
Puma Transformer Oil is a product specially developed for use in oil-filled electrical equipment – including power and distribution transformers, rectifiers, circuit breakers and switchgears.

Product Specifications
Meets the requirements of the following specifications:
- SAE J 1703
- NRS 079-1:2004
- IEC 60296 Edition 4

Product: Puma Chain Lube    Code: 21830
Category: Specialities

Description
Puma Chain Lube is a mineral based oil specifically formulated for the lubrication of chain lube guides and chains.

Product: Puma Soluble Oil    Code: 21835
Category: Specialities

Description
Puma Soluble Oil is a water miscible, mineral oil containing, chlorine free cooling lubricant and is universally applicable.

Product Specifications
Meets the requirements of the following specifications:
- TRGS 611 Section 4
Compressor Oils

Benefits
- Oxidation resistance – longer oil life
- Anti-wear protection – increased equipment life
- Cleanliness performance
- Non-toxic
- Anti-corrosion & anti-rust properties
Product: Puma Compressor Oil 32  
Code: 21804

Product: Puma Compressor Oil 46  
Code: 21805

Product: Puma Compressor Oil 68  
Code: 21823

Product: Puma Compressor Oil 100  
Code: 21831

Category: Compressor Oils

Description

Puma Compressor Oils are formulated from high quality mineral base stocks that deliver reliable protection for rotary screw and sliding vane compressors. All grades are treated with anti-oxidant anti-rust and anti-wear additives. It has an additive system to provide considerable protection and performance for air compressor’s running up to 15 bar with 100 degrees discharge temperature and oil maintenance intervals up to 4,000 hours.

Performance Characteristics

Meets the requirements of the following specifications:
- DIN 51506 VDL
- ISO-L-DAB
- ISO-L-DAG

Product: Puma Synthetic Compressor Oil 46  
Code: 21832

Product: Puma Synthetic Compressor Oil 100  
Code: 21833

Category: Compressor Oils

Description

Puma Synthetic Compressor Oils are formulated from high quality PAO (Poly Alpha Olefin) base stocks that deliver reliable protection for rotary sliding vane and screw air compressors. All grades are treated with anti-oxidant anti-rust and anti-wear additives. It has an additive system to provide good protection and performance for air compressor’s running up to 25 bar and in excess of 100 degrees discharge temperature. Depending on operating conditions, the synthetic properties allow for oil maintenance intervals from 8,000 to 12,000 hours.

Product Specifications

Meets the requirements of the following specifications:
- General Electric Company
- GEK 32568 F, GEK 101941A (FZG/FLS = 8), GEK 107395 A, GEK 28143A.
- GEK 46506D
- DIN 51 524 Part 1 (HL)
- DIN 51 515 Part 1 (L-TD)
- DIN 51 515 Part 2 (L-TG)
- British Standard 489 (CIGRE)
Description
Puma Refrigeration Compressor 68 is a high quality napthenic lubricating oil designed for the lubrication of refrigeration and air conditioning compressors with good chemical stability when working with commonly used refrigerants.

Product Specifications
- Puma Refrigeration Compressor 68 is especially suitable for use with Ammonia R-11, R-12 and R-22 refrigerants.
- Also suitable for use in refrigeration compressors operating under moderate evaporator temperature conditions and thermal loads, including open and semi-sealed industrial types.
Coolants

Benefits
- Lower freezing point
- Non acidic
- High alkalinity
- Anti-rust properties
- Reduce scale formation
- Antifoam properties
Description

**Puma Antifreeze Pre-Mix (50/50)** is a coolant based on ethylene glycol and its formulation does not involve any presence of amines, phosphates and nitrites (NAP free). The product is easy-to-use for direct application, i.e. without dilution with water and it is suitable for use in the radiator systems of almost all types of cars and motorcycles. To obtain full advantage of the performance of this product, it is advisable not to mix it with other types of antifreeze.

**Description**

**Puma Antifreeze Concentrate** is a nitrite, amine, phosphate free liquid for mixing with demineralized water suitable for use in almost all types of motor-vehicle and motorcycles cooling circuits

**Product Specifications**

*Meets the requirements of the following specifications:*

- VW: TL 774 C
- BMW: N 600 69.0
- MAN: 324 Type NF
- GM: B040 0240
- SAAB: 6901 599
- MTU: MTL 5048
- MB 325.0

The thermal behavior of the coolant is closely related to the dilution rate adopted.

The following table shows the freezing/boiling points of the mixture at different dilution rates.

<table>
<thead>
<tr>
<th>%Volume</th>
<th>Freezing Point</th>
<th>Boiling Point</th>
</tr>
</thead>
<tbody>
<tr>
<td>25</td>
<td>-12°C</td>
<td>105°C</td>
</tr>
<tr>
<td>33</td>
<td>-18°C</td>
<td>106°C</td>
</tr>
<tr>
<td>50</td>
<td>-38°C</td>
<td>108°C</td>
</tr>
<tr>
<td>60</td>
<td>-50°C</td>
<td>113°C</td>
</tr>
</tbody>
</table>

Based on field experience, it has been seen that best performances are generally obtained by keeping dilution rate within range 40-60% in demineralized water. Nevertheless, the directions for suitable types of coolant and dilution modality are the direct responsibility of the vehicle manufacturers and the user is strongly recommended to comply with them.
Product: Puma Enviro Cleaner 14000 Plus    Code: 21825
Category: Cleaners

Description

Puma Enviro Cleaner 14000 Plus is a powerful non-flammable detergent concentrate with effective wetting and penetrating action which contains Alcohol Ethoxylate and Oxyethaud that ensure rapid removal of oil, grease, dirt and tar.

Performance Characteristics

Puma Enviro Cleaner 14000 Plus is biodegradable and environmentally friendly. It is non-flammable and therefore ideal for use in mine site applications, around workshops and industry for both cleaning and degreasing. It is supplied in a concentrate form to minimize handling and freight costs.

Recommended Dilutions

<table>
<thead>
<tr>
<th>Cleaning Application</th>
<th>Dilution</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heavy-duty degreasing</td>
<td>20%</td>
<td>20 litres of detergent to 80 litres of water</td>
</tr>
<tr>
<td>Pressure or steam cleaning</td>
<td>10%</td>
<td>2 litres of detergent to 18 litres of water</td>
</tr>
<tr>
<td>General-purpose cleaning</td>
<td>2-5%</td>
<td>2-5 litres of detergent to 98-95 litres of water</td>
</tr>
</tbody>
</table>

Product: Puma Extreme Cleaner    Code: 21813
Category: Cleaners

Description

Puma Extreme Cleaner is an aqueous detergent with a particularly aggressive action towards dirt. It is not flammable, volatile or corrosive for plant operators. It does not contain solvents.

Performance Characteristics

Puma Extreme Cleaner can be used for heavy duty cleaning tasks (e.g. dewaxing, elimination of grease & sludge, etc.) It can be diluted to a maximum of 2% of cleaner in a water solution, depending on the type and quantity of dirt to remove. It is advisable for painted surfaces to use the diluted mixture.
Product: Puma General Purpose Degreaser  Code: 21814
Category: Cleaners

Description
Puma General Purpose Degreaser is a clear water-based degreaser with high alkalinity which renders it suitable as a medium duty general purpose degreaser for greases.

Performance Characteristics
Puma General Purpose Degreaser cleans most types of greases except those based on tar and bitumen. It is an excellent degreaser for graphite-based material at high dilution, it can clean concrete floors soiled with grease and oils. Its foam suspends dust and soil, which makes cleaned surfaces easy to rinse.
Benefits
- Anti-wear protection – longer equipment life
- Multi-grade performance
- Oxidation resistance – longer oil life
- High detergency – increased engine cleanliness
- Antifoam – increased performance
- Universal application
- Anti-corrosion & anti-rust properties
- Demulsibility – engine life extension

Agricultural Oils
Product: Puma Universal Tractor Transmission Oil 10W-30  
Category: Agricultural Oils  

Description
Puma Universal Tractor Transmission Oil 10W-30 is a multi-purpose lubricant with special properties which make it suitable for use in modern tractors, where a single system is adopted for the lubrication of the gearbox, differential, oil-bath clutches, wet brakes, hydraulic systems, final drives and power take-off gearboxes.

Product Specifications
Meets the requirements of the following specifications:
- API: GL-4
- John Deere JDM-J20C
- CNH MAT 3525/3526
- Massey-Ferguson M1135-M1141-M1143-M1145
- Allison C-4
- FORD ESEN M2C-134D
- FORD ESEN M2C-86B
- Eaton Vickers
- Parker (Denison UTTO, HF-0)
- Caterpillar: TO-2
- Eaton UDT
- Case MS 1204/1206/1207/1209
- JCMAS HK P-041 & HK P-042
Description
Puma Super Tractor Oil Universal 15W-40 is a multifunctional oil suitable for the lubrication of all parts (engines included) of practically all farm machinery of all makes and ratings, except for particularly heavily-loaded drives for which the makers specify an EP oil.

Product Specifications
Meets the requirements of the following specifications:
- API: GL-4
- API: CE/CD/CF-4/SF
- MB 227.1
- John Deere JDM-J27
- Caterpillar: TO-2
- ACEA: E3-96
- Massey-Ferguson M1144-M1145
- FORD ESEN M2C-159B
- ZF TE-ML 06B, 06C, 07B
- Allison C-4
- EATON M2950S & I-280-S
- Agrifarm NH, 024 C
- Sauer Danfoss Hydrostatic Trans Fluid
- New Holland 82009203
Benefits

- Anti-wear protection - longer equipment life
- Oxidation resistance - longer oil life
- Antifoam - increased performance
- Rapid air release and high resistance to foaming
- Anti-corrosion & anti-rust properties
- Demulsibility - component life extension
Product: Puma Turbine Oil 32  Code: 21819
Product: Puma Turbine Oil 46  Code: 21820
Product: Puma Turbine Oil 68  Code: 21821
Product: Puma Turbine Oil 100  Code: 21824

Category: Turbine Oils

Description
Puma Turbine Oils have been developed to meet the widest range of requirements for most modern steam and light duty gas turbines. These oils are formulated from high quality Group II base oils and advanced additive packs that provide improved performance against rush and corrosion prevention, oxidative stability, low foaming and demulsibility. The use of Group II base oils ensures that the TOST (Turbine Oil Stability Test) is greater than 10,000 hours.

Product Specifications
Puma Turbine Oil 32 / 46 / 68 / 100

Meets the requirements of the following specifications:
- DIN 51 524, Part 1(HL)
- DIN 51 515, Part 1(L-TD)
- DIN 51 515
- GEK 32568 F
- GEK 109141 A (FZG/FLS = 8)
- GEK 28143A
- GEK 46506D
- AFNOR E-48600,HL
- BS 489
- US Steel 120,126
- MIL-L-17672 D
- MIL-L-17331-B
- MIL-L-17331-G
- Cincinnati Machine ,P-38,P45,P-55,P-57
- CEGB Standard 207001
- Alstom HTGD 90 117 V0001R 117
- (FZG/FLS ≥ 9)
- ABB-Stal VTI 3200-3, 81 21 08
- Westinghouse 21T0591 &551255Z3
- Siemens AG TLV 9013 04/01 (FZG/FLS = 8)
- Solar ES9-224U
- JIS K 2213
- Mitsubishi Heavy Industries E00-87182
- ASTM D 4304 (Type II)
We are Puma Lubricants. The New Standard.
Marine Oils

Benefits
- Antiwear protection – longer equipment life
- Oxidation resistance – longer oil life
- High detergency – increased engine cleanliness
- Anti-foam – increased performance
- Anti-corrosion & anti-rust properties
- High TBN retention
- Demulsibility – engine life extension
**Product:** Puma Marine TBN 15 SAE 40  
**Category:** Marine Oils  
**Code:** 21816

**Description**
Puma Marine TBN 15 SAE 40 is an API CF (Series III) lubricant specifically formulated for naturally-aspirated or even highly supercharged marine, industrial and locomotive diesel engines. Its additive package is suitably balanced in order to permit the use of either gasoil or marine diesel fuels, while ensuring top performance in engines with very high mean effective pressures.

**Product Specifications**

*Meets the requirements of the following specifications:*

- API: CF

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**Product:** Puma Marine TBN 30 SAE 30  
**Product:** Puma Marine TBN 30 SAE 40  
**Product:** Puma Marine TBN 50 SAE 40  
**Category:** Marine Oils  
**Code:** 21817, 21834, 21827

**Description**
Puma Marine TBN 30 & 50 Oils are API CF (Series III) engine oils intended for use in four-stroke diesel engines operating with high-sulphur fuels, thus requiring an especially high TBN. It is specifically recommended for application in four-stroke diesel engines operating on poor quality, high sulphur, residual fuels or frequently experiencing low temperatures in the piston-liner area. Puma Marine TBN 30 & 50 Oils are also recommended for those applications where a single product is preferred to lubricate both engines operating on fuel oil and those running on diesel fuel.

**Product Specifications**

*Meets the requirements of the following specifications:*

- API: CF
Puma Lubricants. The New Standard.

We are passionate about Lubricants. Our high quality Heavy Duty lubricant products for the Agricultural, Construction, Mining, Earthmoving, Industrial and Transportation sectors of the market, as well as our range of Automotive lubricants exceed industry specifications and have the latest key OEM approvals. Our lubricants offer is supported by world-class problem solving expertise and our guaranteed on time delivery promise. Our ability to provide an integrated value proposition to our business-to-business customers sets us apart from the competition. Trust Puma Lubricants. The correct lubricants, where and when you need them which keep you operating and profitable. The New Standard.
Puma Energy is a midstream and downstream petroleum company, with operations across five continents and a whole world of know-how.

Puma Energy International is well-resourced and well-managed business that understands the challenge of delivering sustainable growth in emerging and mature markets. Thanks to our integrated midstream and downstream operations, within 50 countries, we can ensure the seamless storage and delivery of high quality oil products to business and retail customers safely, reliably and at a fair price.

Puma Energy is one of the largest independent storage and downstream companies in Sub-Saharan Africa. Puma Energy currently operates 694 retail service stations in metropolitan and remote areas of Africa, supplies aviation fuels to 33 airports in Southern and Western Africa and provides deliveries to commercial customers in some of the most remote areas of the continent.

In Africa, Puma established its presence in Congo in 2002; we are now operating in 20 countries and we continually expand our footprint. We have been working hard to maximise our resources and invest in exciting and relevant projects.

- Over 2 billion USD invested in Africa since 2009
- Over 4,000 employees
- Over 70 terminals across Africa owned and operated by Puma Energy adding up to 1,170,000 m³ storage capacity

With a workforce of more than 4,000 employees we can focus on commercial supply relationships, retail operations, terminal and depot operations and providing logistics services to our customers. All this with an organisational structure, control system and processes designed for further growth.