



ST10



PSO CNG OIL

DESCRIPTION

PSO CNG Oil is a multi-grade, high performance engine oil specially formulated to meet the requirement of CNG operated automobiles.

PSO CNG Oil is blended with specially selected additive system and high quality paraffinic base stocks to withstand very high temperature found in CNG engine's combustion chamber. This oil is designed to give excellent performance for a long period under severe operating conditions.

APPLICATIONS

PSO CNG oil is designed for naturally aspirated or turbocharged vehicles operating under moderate to severe working conditions.

PERFORMANCE STANDARDS

SAE 20W-50
API SF/CD

BENEFITS

- PSO CNG oil provides extra protection to engine parts against high temperature found in combustion chambers.
- PSO CNG oil is formulated with special antioxidant additive to enhance engine life and increase oil drain intervals.
- Equally beneficial for gasoline engines.
- Improved piston and ring groove deposit control, oil consumption control and reduced wear.

TYPICAL DATA

PSO CNG Oil	SAE 20W-50
Kinematic Viscosity @ 100°C, cSt ASTM D445	19.3
Viscosity Index ASTM D2270	122
Flash Point (COC), °C ASTM D92	232
Pour Point, °C ASTM D97	-18
Total Base Number, mgKOH/g ASTM D2896	7.9
Sulphated Ash % Wt ASTM D874	0.73

These typical characteristics are of existing production. The future production will conform to PSO blending specifications hence any variation in these characteristics will not effect the product performance.

PSO CNG PLUS OIL

Extra Protection Against High Temperature

DESCRIPTION

PSO CNG Plus is a multi-grade advanced version of CNG engine oil series. It is a high performance engine oil designed to combat with high combustion temperature of CNG fuel operated engines. It provides optimum protection against oxidation and improves drain intervals.

PSO CNG Plus is developed with selected additives component technology and high quality paraffinic base stocks to withstand very high temperatures found in CNG engine's combustion chamber and ensures excellent engine performance under all climatic conditions. This oil is designed to give excellent performance for a long period under severe operating conditions.

APPLICATIONS

PSO CNG Plus is designed for naturally aspirated or turbo charged vehicles operating under moderate to severe working and load conditions.

BENEFITS

- As CNG is a dry fuel hence PSO CNG PLUS provides appropriate lubrication to the valve seat and protects against valve recession.
- PSO CNG Plus provides extra protection, oxidation stability and long service life of engine parts against high temperature found in CNG fuelled combustion chamber.
- PSO CNG Plus is formulated with special antioxidant additive to enhance engine life and increase oil drain interval and reduce sludge formation.
- Equally suited to both CNG and gasoline engines.
- Provides improved protection against piston and ring groove deposit control, oil consumption control and wear.

The values mentioned are typical depending upon the quality of the base oil available and cannot be used to reject the product.

However these properties can be altered to meet the specific requirement of the process / equipment

PERFORMANCE STANDARDS

SAE	20W-50
API	SG/CD

TYPICAL DATA

PSO CNG Plus Oil	SAE 20W-50
Kinematic Viscosity @ 100°C, cSt ASTM D445	19.44
Viscosity Index ASTM D2270	122
Flash Point (COC), °C ASTM D92	238
Pour Point, °C ASTM D97	-18
Total Base Number, mgKOH/g ASTM D2896	8.4
Sulphated Ash % Wt ASTM D874	0.78

These typical characteristics are of existing production. The future production will conform to PSO blending specifications hence any variation in these characteristics will not effect the product performance.

PSO CARIENT ULTRA

Ultimate Engine Protection

DESCRIPTION

PSO Carient Ultra is a super high technology multi-grade engine oil specially designed for use in all passenger car engines, diesel and turbocharged units. The SAE 20W-50 viscosity range combined with API SJ/CF performance rating of PSO Carient Ultra ensures increased protection for mix fleet operation.

APPLICATIONS

PSO Carient Ultra is recommended specially for high performance multi-valve engines where it will provide improved engine efficiency resulting in more power and improved fuel economy. Even in standard older engines, PSO Carient Ultra provides extra protection at high operating temperatures. These features ensure maximum protection even for engines operating in hot climates.

BENEFITS

- Increased protection levels.
- Improved anti-wear control, specially in high performance engines.
- Greater resistance to oxidation, which is important for engines operating at severe high temperatures in hot climates.
- Protects against soot, varnish, sludge formation, acid and corrosion.
- Improved oil pressure and oil consumption.

PERFORMANCE STANDARDS

SAE 20W-50
API SJ/CF

TYPICAL DATA

PSO Carient Ultra	SAE 20W - 50
Kinematic Viscosity @ 100°C, cSt ASTM D445	19.3
Viscosity Index ASTM D2270	121
Flash Point (COC), °C ASTM D92	218
Pour Point, °C ASTM D97	-18
Total Base Number, mgKOH/g ASTM D2896	6.5
Sulphated Ash % Wt ASTM D874	0.61

These typical characteristics are of existing production. The future production will conform to PSO blending specifications hence any variation in these characteristics will not effect the product performance.

PSO CARIENT PLUS

Superior Performance You Can Feel

DESCRIPTION

PSO CARIENT Plus is a superior multi-grade engine oil formulated to meet the requirements of car engines requiring an API SG/CD performance standard operating over wide temperature range.

APPLICATIONS

Recommended for use in passenger car engines including gasoline and turbocharged diesel engines. The SAE 20W-50 viscosity range of PSO Carient Plus ensures rapid circulation and easy cranking on start-up plus extra protection at high operating temperature.

BENEFITS

- Improved anti-wear control, specially in high performance engines.
- Increased engine deposit control.
- Improved high temperature oxidation control, which is important for engines operation at severe high temperatures in hot climates.
- Improved protection against rust corrosion.
- Improved protection during start-up.
- Improved control of volatility and oil consumption.

PERFORMANCE STANDARDS

SAE	20W-50
API	SG/CD
US MIL	2104E
US MIL	46152D
CCMC	G-4
JAPANESE	SE

TYPICAL DATA

PSO Carient Plus	SAE 20W-50
Kinematic Viscosity @100°C, cSt ASTM D445	19.6
Viscosity Index ASTM D2270	126
Flash Point (COC), °C ASTM D92	230
Pour Point, °C ASTM D97	-18
Total Base Number, mgKOH/g ASTM D2896	7.5
Sulphated Ash % Wt ASTM D874	0.68

These typical characteristics are of existing production. The future production will conform to PSO blending specifications hence any variation in these characteristics will not effect the product performance.

PSO CARIENT SUPER

Proven Protection for Car Engines

DESCRIPTION

PSO CARIENT Super is specially designed for use in passenger car engines including gasoline or diesel units. It is blended with high viscosity index mineral base stocks and selected additives system.

The SAE 20W-50 viscosity range of PSO CARIENT Super ensures rapid circulation and protection at high operating temperatures.

APPLICATIONS

It is designed to meet the requirements of gasoline and diesel engine manufacturers. It is an ideal lubricant to be used in the mix fleet of vehicles.

BENEFITS

- Good protection during start-up.
- High temperature protection specially in hot climate.
- Protects against soot, varnish, sludge formation, acid and corrosion.
- Improved oil consumption control compared to a mono-grade.

PERFORMANCE STANDARDS

SAE	40 & 20W-50
API	SF/CC
US MIL	2104E
US MIL	46152D
CCMC	G-2
JAPANESE	SE

TYPICAL DATA

PSO Carient Super	SAE 40	SAE 20-W50
Kinematic Viscosity @100°C, cSt ASTM D445	14.6	19.34
Viscosity Index ASTM D2270	99	124
Flash Point (COC), °C ASTM D92	240	234
Pour Point, °C ASTM D97	-6	-18
Total Base Number, mgKOH/g ASTM D2896	5.1	5.1
Sulphated Ash % Wt ASTM D874	0.5	0.5

These typical characteristics are of existing production. The future production will conform to PSO blending specifications hence any variation in these characteristics will not effect the product performance.

PSO CARIENT ADVANCE

All Season Multigrade Engine Oil

DESCRIPTION

PSO CARIENT Advance is specially designed for use in passenger car engines including gasoline or diesel units. It is blended with high viscosity index mineral base stocks and selected additives system.

The SAE 20W-50 viscosity range of PSO CARIENT Advance ensures rapid circulation and protection at high operating temperatures.

APPLICATIONS

It is designed to meet the requirements of gasoline and diesel engine manufacturers. An ideal lubricant to be used in the mix fleet of vehicles.

BENEFITS

- Good protection during start-up.
- High temperature protection specially in hot climate.
- Protects against soot, varnish, sludge formation, acid and corrosion.
- Improved oil consumption control compared to a mono-grade.

PERFORMANCE STANDARDS

SAE	40 & 20W-50
API	SE/CC
US MIL	2104E
US MIL	46152D
CCMC	G-2
JAPANESE	SE

TYPICAL DATA

PSO Carient Advance	SAE 40	SAE 20-W50
Kinematic Viscosity @100°C, cSt ASTM D445	14.6	19.34
Viscosity Index ASTM D2270	99	124
Flash Point (COC), °C ASTM D92	240	234
Pour Point, °C ASTM D97	-6	-18
Total Base Number, mgKOH/g ASTM D2896	5.1	5.1
Sulphated Ash % Wt ASTM D874	0.5	0.5

These typical characteristics are of existing production. The future production will conform to PSO blending specifications hence any variation in these characteristics will not effect the product performance.

PSO CARIENT EXTRA

Car Engine Protector

DESCRIPTION

These are high quality mineral based engine oils designed for use in naturally aspirated 4-stroke gasoline and diesel engines. These are fortified with specially selected additives, which provide a high rate of detergency, resistance to oxidation, rust and anti-wear characteristics.

APPLICATIONS

PSO Carient Extra oil ranges of engine oils are available in five mono-grades and versions. These have been specially designed for petrol engines operating under severe conditions.

PERFORMANCE STANDARDS

SAE	10,20,30,40,50
API	SD/CC
US MIL	2104B

BENEFITS

- Provides efficient performance over a wide range of operating circumstances.
- Excellent control of oxidation, corrosion, wears and oil consumption.
- Longer drain interval than SC/CC oils

TYPICAL DATA

PSO Carient Extra	SAE 10	SAE 20	SAE 30	SAE 40	SAE 50
Kinematic Viscosity @100°C, cSt ASTM D445	6.1	9.2	10.9	14.8	19.5
Viscosity Index ASTM D2270	100	100	100	100	100
Flash Point (COC), °C ASTM D92	204	220	230	240	245
Pour Point, °C ASTM D97	-25	-6	-6	-6	-6
Total Base Number, mgKOH/g ASTM D2896	4.1	4.1	4.1	4.1	4.1
Sulphated Ash, wt% ASTM D874	0.37	0.37	0.37	0.37	0.37

These typical characteristics are of existing production. The future production will conform to PSO blending specifications hence any variation in these characteristics will not effect the product performance.

PSO CARIENT

Motor Engine Oil

DESCRIPTION

PSO Carient series are formulated from good quality base oils which incorporate a balanced additive package to meet the demands of both diesel and petrol engine vehicles used under moderate to severe service conditions.

APPLICATIONS

The PSO Carient ranged of oils are available in five versions, and have been specially designed for mixed fleet operation under arduous conditions.

These oils meet API service SC/CC as well as MIL-L-2104B standards and are not recommended for super-charged engines where the manufacturers specify a lubricant to meet API service CD or MIL-L-2104C performance standards.

BENEFITS

- Different viscosity grades are applicable for wide range of operating temperatures.
- Excellent control of oxidation, corrosion and wear.
- Controls oil consumption

PERFORMANCE STANDARDS

SAE	10,20,30,40,50
API	SC/CC
US MIL	2104B

TYPICAL DATA

PSO Carient	SAE 10	SAE 20	SAE 30	SAE 40	SAE 50
Kinematic Viscosity @100°C, cSt ASTM D445	6	9.0	10.85	14.28	19.5
Viscosity Index ASTM D2270	100	100	100	100	100
Flash Point (COC), °C ASTM D92	205	220	230	240	245
Pour Point, °C ASTM D97	-25	-6	-6	-6	-6
Total Base Number, mgKOH/g ASTM D2896	4	4	4	4	4
Sulphated Ash, wt% ASTM D874	0.3	0.3	0.3	0.3	0.3

These typical characteristics are of existing production. The future production will conform to PSO blending specifications hence any variation in these characteristics will not effect the product performance.

PSO FLUSHING OIL

DESCRIPTION

PSO Flushing oil is formulated from light viscosity good quality mineral oil.

APPLICATIONS

PSO Flushing oil is suitable for flushing and cleaning of engine crankcase and other machines prior to filling a new oil.

PERFORMANCE STANDARDS

ISOVG 20

BENEFITS

- PSO Flushing oil offers good cleaning, flushing of engines / machine systems.

TYPICAL DATA

PSO Flushing Oil	ISOVG 20
Kinematic Viscosity @40°C, cSt ASTM D445	21.50
Viscosity Index ASTM D2270	95
Flash Point (COC), °C ASTM D92	177

These typical characteristics are of existing production. The future production will conform to PSO blending specifications hence any variation in these characteristics will not effect the product performance.

PSO TURBO ENGINE LUBE 15W-40

DESCRIPTION

PSO Turbo Engine Lube 15W/40 is a high performance diesel engine oil specially designed for use in heavy duty diesel engines. It is suitable for use in gasoline and diesel 4-stroke engines including turbocharged units.

APPLICATIONS

The wide range of application makes it the ideal choice for mixed fleet operators where it may be used in most cars, trucks, 4WD, buses plus many off highway vehicles and plants engines.

The SAE 15W-40 viscosity range of PSO Turbo Engine Lube ensures rapid circulation and easy cranking on start-up from cold, plus improved protection at high operating temperature. Other features include improved oil consumption control and reduced engine wear. These features ensure maximum protection even for engines operating in hot dusty climates.

BENEFITS

- Increased engine power retention and fuel efficiency.
- Longer engine life, longer oil service life and reduced operating costs.

- Longer engine life and increased engine power retention.
- Longer component and turbocharger life.
- Improved engine protection, increasing component life, reducing costs and reducing oil top-up.

PERFORMANCE STANDARDS

API	CD/SE, SG/CE/CF-4
US MIL	2104E

TYPICAL DATA

PSO Turbo Engine Lube	15W-40
Kinematic Viscosity @ 00 °C, cSt (ASTM D445)	16.0
Viscosity Index (ASTM D2270)	135
Flash Point (COC), °C (ASTM D92)	215
Pour Point, °C (ASTM D97)	-23
Total Base Number, mg KOH/g (ASTM D2896)	12

These typical characteristics are of existing production. The future production will conform to PSO blending specifications hence any variation in these characteristics will not effect the product performance.

PSO DEO 9000

Low Emission High Performance Diesel Engine Oil

DESCRIPTION

PSO DEO 9000 is a heavy-duty diesel engine oil based on the modern additive component technology for longer oil and engine life in newly designed EGR, turbo and non- turbo charged engines. It is available in SAE viscosity grade 15W-40.

APPLICATIONS

DEO 9000 has been developed to meet north American and European OEM specifications as well as API CI-4, ACEA E3/E5/E7 and global DH-1 specifications.

PSO DEO 9000 can also be used in passenger cars engines requiring API SL or ACEA A3/B3/B4 category products.

PSO DEO 9000 is also recommended for wide range of construction, agricultural equipments & several farm machineries, which require stop-start service and provide protection against wear of bearing and deposit formation even under high/low load conditions.

BENEFITS

- Advance SAE 15W-40 formula meets the engine oil requirement of newly designed low emission EGR engines as well as older engines reducing the need for additional oil in the fleet.
- Developed for diesel engines and designed to provide optimum protection with reduced risk of cylinder bore polishing.
- Reduced compression loss and blow-by, resulting in improved oil consumption control plus longer oil and engine life.
- Extended drain capabilities demonstrated by meeting the requirement of API CI-4, CH-4, Mack EO-M plus, Cummins 20071/6/8, Volvo VDS-3 and MB 228.3 allow engine operator maximum drain flexibility.
- Suitable for a wide variety of engines, excellent for operators of mixed fleets.
- Grade rationalization reduces the inventory cost and space allocation plus reduced risk of incorrect applications.

PERFORMANCE STANDARDS

SAE	15W-40
API	CI-4/SL
ACEA	E3-96#4/E7-04/E5-02
Global	DHD-1
Volvo	VDS-2/VDS-3
VW	501/5 Quality
Cummins	20071/76/78
Cummins	20072/77
Mack	EO-M, EO-M Plus
MBp	228.3 (PA), MAN M3275(PA)
ACEA	A3-02/B3-98 #2/B4-02
JASO	DH-I (Quality)

TYPICAL DATA

PSO DEO 9000	SAE 15W-40
Kinematic Viscosity @100°C, cSt ASTM D445	14.3
Viscosity Index ASTM D2270	141
Flash Point (COC), °C ASTM D92	214
Pour Point, °C ASTM D97	-24
Total Base Number, mgKOH/g ASTM D2896	10.1
Sulphated Ash, wt% ASTM D874	1.2

These typical characteristics are of existing production. The future production will conform to PSO blending specifications hence any variation in these characteristics will not effect the product performance.

PSO DEO 8000

Ultimate Protection for all Diesel Engines

DESCRIPTION

PSO DEO 8000 is (AHDDEO) Advanced Heavy-Duty Diesel Engine Oil based on the modern additive component technology designed for use as mixed fleet automotive diesel engine oil & for high-speed turbocharged diesel engines. Its uniqueness is a combination of highly refined hydro cracked base oils & carefully selected additives to give superior engine protection against soot & sludge.

PSO DEO 8000 offers a wide range of applications that make it an excellent choice for mixed fleet operators where it may be used in cars, trucks, 4WD, buses plus many off-highway vehicles and plant engines.

APPLICATIONS

PSO DEO 8000 is recommended for on or off-road which means that you need only one oil for all your engines. As an essential part of the performance of PSO DEO 8000, an extensive testing is carried out globally in road transport operations conforming to American, European, and Japanese engines (turbocharged and naturally aspirated)

PSO DEO 8000 is also recommended for wide range of construction, agricultural equipments and several farm machineries, which require stop-start service and provide protection against wear of bearing and deposit formation even under high load/low load conditions.

BENEFITS

- Developed for diesel engines and designed to provide optimum protection with reduced risk of cylinder bore polishing.
- Reduced compression loss and blow-by, resulting in improved oil consumption control plus longer oil life and longer engine life.
- Protects against piston and combustion chamber deposits.
- Increased engine power retention and fuel efficiency.
- Suitable for a wide variety of engines, excellent for operators of mixed fleets.
- Grade rationalisation giving reduced oil stocks, costs and space allocation plus reduced risk of incorrect applications.
- Reduced operating costs associated with fewer oil changes and less downtime.

PERFORMANCE STANDARDS

SAE	15W-40 & 20W-50
API	CH-4/SG
MB	228.3
Volvo	VDS-3
Cummins	20072/7

TYPICAL DATA

PSO DEO 8000	SAE 15W-40	SAE 20W-50
Kinematic Viscosity @100°C, cSt ASTM D445	14.3	19.3
Viscosity Index ASTM D2270	141	130
Flash Point (COC), °C ASTM D92	214	220
Pour Point, °C ASTM D97	-24	-18
Total Base Number, mgKOH/g ASTM D2896	9.6	9.8
Sulphated Ash, wt% ASTM D874	1.12	1.16

These typical characteristics are of existing production. The future production will conform to PSO blending specifications hence any variation in these characteristics will not effect the product performance.

PSO DEO 7000

Ultimate Protection for all Diesel Engines

DESCRIPTION

PSO DEO 7000 Oils are high performance, dedicated heavy duty engine lubricants designed for use in modern high speed turbocharged diesel engines. They are based on a blend of high quality HVI solvent refined mineral oils and an advanced additive package.

PSO DEO 7000 Oils have been formulated for severe duty service in engines specifically designed to meet 1994 on-highway exhaust emission standards as defined in accordance with service category API CG-4.

APPLICATIONS

Blended to provide outstanding lubrication in all 4-Stroke heavy duty diesel engines of European, American and Japanese origin.

PSO DEO 7000 is particularly suited for use in Road Transport & Construction (CRT) applications and is endorsed by a wide range of truck and engine makers.

Constant high speed or stop-start duty on or off-road under the most arduous conditions.

PSO DEO 7000 is recommended for use in a wide range of construction equipment and agricultural equipment applications, where fuel sulphur levels up to 1% may be encountered.

- The high temperature stability of PSO DEO 7000 is an outstanding feature. Advanced functional additives effectively control Carbon and lacquer deposits formations on vital moving parts, caused by very high engine temperatures.

PERFORMANCE STANDARDS

SAE	15W-40 & 20W-50
API	CG-4/SG
MB	228.3
Volvo	VDS-3
Cummins	20072/77

BENEFITS

- Outstanding thermal stability and oil oxidation resistance to maintain high standard of piston cleanliness.
- Overall engine cleanliness contributes to low engine wear, longer component life, maintenance of power output, more operational stability and lower servicing costs.
- Excellent dispersancy substantially reduces soot induced oil thickening and associated engine wear.

TYPICAL DATA

PSO DEO 7000	SAE 15W-40	SAE 20W-50
Kinematic Viscosity @100°C, cSt ASTM D445	14.3	19.3
Viscosity Index ASTM D2270	141	130
Flash Point (COC), °C ASTM D92	214	220
Pour Point, °C ASTM D97	-24	-18
Total Base Number, mgKOH/g ASTM D874	9.1	9.1

These typical characteristics are of existing production. The future production will conform to PSO blending specifications hence any variation in these characteristics will not effect the product performance.

PSO DEO 6000

Ultimate Protection for all Diesel Engines

DESCRIPTION

PSO DEO 6000 is a high performance multi-grade engine oil specially designed for use in heavy-duty diesel engines operating on high sulphur fuels.

It is suitable for use in gasoline and diesel four stroke engines including turbo charged units and may also be used in some manual transmissions.

APPLICATIONS

Multi-grade viscosity range of PSO DEO 6000 ensures rapid circulation and easy cranking on start-up from cold, plus improved protection at high operating temperatures. Other features include oil consumption control and reduced engine wear. These features ensure maximum protection even for engines operating in hot dusty climates.

This wide range of application make it the first choice for mixed fleet operators where it is used in cars, trucks, 4WD, buses plus many off highway vehicles and plant engines.

BENEFITS

- Longer engine life and increased engine power retention.
- Longer component and turbocharger life. Reduced operating cost.
- Improved anti-wear properties.

- Improved control of volatility and oil consumption.
- Improved temperature and oxidation control.

PERFORMANCE STANDARDS

SAE	15W-40 & 20W-50
API	CF-4/SG
US MIL	2104E
MB	228.1

TYPICAL DATA

PSO DEO 6000	SAE 15W-40	SAE 20W-50
Kinematic Viscosity @100°C, cSt ASTM D445	14.3	19.3
Viscosity Index ASTM D2270	135	125
Flash Point (COC), °C ASTM D92	210	235
Pour Point, °C ASTM D97	-24	-18
Total base Number, mg KOH/g ASTM D2896	9.5	9.5
Sulphated Ash, wt % ASTM D874	1	1

These typical characteristics are of existing production. The future production will conform to PSO blending specifications hence any variation in these characteristics will not effect the product performance.

PSO DEO 5000

Extra Protection for Diesel Engines

DESCRIPTION

PSO DEO 5000 is high performance heavy duty diesel engine oil specially designed to lubricate diesel as well as gasoline engines. Excellent detergent quality and good oxidation stability ensure optimum service life with reduced maintenance cost.

PSO DEO 5000 provides strong protection to engine parts against corrosion and acid formation. The anti-oxidative characteristics resist oil degradation / control oil thickening and keep oil filter clean.

APPLICATIONS

PSO DEO 5000 is developed for high speed four stroke turbocharged or naturally aspirated diesel engines. It is equally beneficial for off-highway vehicles and highway vehicles, tractors, diesel generators and small diesel engines in marine service (fishing and transport).

- Good oxidation stability increases drain interval and provides optimum service life.

PERFORMANCE STANDARDS

SAE	40 & 20W-50
API	CF/SF
US MIL	2104D
US MIL	45152A
CCMC	D2
JAPANESE	CD

BENEFITS

- Excellent additive system of PSO DEO 5000 controls high temperature piston deposits to maintain power and performance.
- High TBN value of PSO DEO 5000 neutralizes acid formation and protects the engine parts from corrosion wear to prolong engine over-haul period.

TYPICAL DATA

PSO DEO 5000	SAE 40	SAE 20W-50
Kinematic Viscosity @100°C, cSt ASTM D445	14.2	19.5
Viscosity Index ASTM D2270	100	125
Flash Point (COC), °C ASTM D92	240	225
Pour Point, °C ASTM D97	-6	-18
Total base Number, mg KOH/g ASTM D2896	10	10
Sulphated Ash, wt % ASTM D874	1	1

These typical characteristics are of existing production. The future production will conform to PSO blending specifications hence any variation in these characteristics will not effect the product performance.

PSO DEO 4000

Power Pack Performance

DESCRIPTION

PSO DEO 4000 is a premium quality “Super High Performance Diesel” (SHPD) multi-grade engine oil specially designed for use in heavy duty diesel engines including turbocharged and naturally aspirated units.

APPLICATIONS

Multi-grade viscosity range of PSO DEO 4000 ensures rapid circulation and easy cranking on start-up from cold, and its special formulation ensures improved protection at high operating temperatures. These features make it an excellent choice, specially for engines operating in hot dusty climates.

- Increased engine power retention and fuel efficiency.

PERFORMANCE STANDARDS

SAE	15W-40 & 20W-50
API	CE/SG
US MIL	2104E

BENEFITS

- Improved piston and ring groove deposits control, oil consumption control and wear reduction.
- Longer engine and turbo charger life
- Reduced inventory cost.
- Reduced operating cost.

TYPICAL DATA

PSO DEO 4000	SAE 15W-40	SAE 20W-50
Kinematic Viscosity @100°C, cSt ASTM D445	14.5	19.88
Viscosity Index ASTM D2270	135	125
Flash Point (COC), °C ASTM D92	210	220
Pour Point, °C ASTM D97	-24	-18
Total base Number, mg KOH/g ASTM D2896	9.2	9.2
Sulphated Ash, wt % ASTM D874	1	1

These typical characteristics are of existing production. The future production will conform to PSO blending specifications hence any variation in these characteristics will not effect the product performance.

PSO DEO 3000 Multi-Grade

Heavy Duty Diesel Engine Oil

DESCRIPTION

PSO DEO 3000 is a multi-grade engine oil blended from high quality mineral oils and incorporates an advance additives package. It is excellent in detergency, deposit control and acid neutralizing power, anti-wear and anti-corrosion protection and foam control.

APPLICATIONS

PSO DEO 3000 is designed to meet lubrication requirements of heavy long distance turbo-charged diesel trucks. This grade is also satisfactory for use in automotive vehicles ranging from petrol and diesel engine light vans.

PERFORMANCE STANDARDS

SAE	20W-50, 15W-40
API	CD/SE
US MIL	2104E

BENEFITS

- Protects against soot, varnish, sludge formation, acid and corrosion.
- Improved oil pressure and oil consumption control.
- Longer engine life and valve train components life.
- Improved high temperature protection, specially for hot dusty climates.

TYPICAL DATA

PSO DEO 3000	SAE 15W-40	SAE 20W-50
Kinematic Viscosity @100°C, cSt ASTM D445	14.0	19.3
Viscosity Index ASTM D2270	134	125
Flash Point (COC), °C ASTM D92	216	238
Pour Point, °C ASTM D97	-24	-18
Total base Number, mg KOH/g ASTM D2896	10	10
Sulphated Ash, wt % ASTM D874	1.1	1.1

These typical characteristics are of existing production. The future production will conform to PSO blending specifications hence any variation in these characteristics will not effect the product performance.

PSO DEO 3000 Mono-Grade

Heavy Duty Diesel Engine Oil

DESCRIPTION

These oils are superior high detergency lubricants manufactured from high quality base oils and incorporate a sophisticated additives package, designed to meet the stringent requirements of high speed supercharged diesel and also petrol engines. These oils meet API classification CD & Caterpillar Series III.

APPLICATIONS

This range of heavy duty lubricants has been primarily developed to meet the requirements of high speed supercharged diesel engines operating under the most severe service conditions.

- Effectively controls wear and deposits.
- Protects against rust and corrosion.
- Prevents bearing corrosion and high temperature deposits in diesel engines.

In addition, the versatility, low ash content and high performance levels of these lubricants provide civil engineering plant operators with the opportunity of standardizing on one oil for a wide variety of both petrol and diesel powered equipments for which Series III or MIL-L-2104C oil is specified.

PERFORMANCE STANDARDS

SAE	10,20,30,40,50
API	CD/SE
US MIL	2104E

BENEFITS

- Suitable for turbocharged and super-charged diesel engines.

TYPICAL DATA

PSO DEO 3000	SAE 10	SAE 20	SAE 30	SAE 40	SAE 50
Kinematic Viscosity @100°C, cSt ASTM D445	6.0	8.9	11.4	14.2	19.0
Viscosity Index ASTM D2270	100	100	100	100	100
Flash Point (COC), °C ASTM D92	204	210	220	230	240
Pour Point, °C ASTM D97	-25	-6	-6	-6	-6
Total base Number, mg KOH/g ASTM D2896	10	10	10	10	10
Sulphated Ash, wt % ASTM D874	1.1	1.1	1.1	1.1	1.1

These typical characteristics are of existing production. The future production will conform to PSO blending specifications hence any variation in these characteristics will not effect the product performance.

PSO DEO 2000

Diesel Engine Oil

DESCRIPTION

PSO DEO 2000 series of oils are high performance engine lubricants formulated from base oils which incorporate a balanced additives package to meet the demands of diesel and gasoline engine vehicles used under moderate to severe service conditions.

APPLICATIONS

These ranges of engine oils are available in five mono-grade versions. These have been specially designed for diesel engines operating under severe conditions.

Particular features of DEO 2000 grades are their resistance to sludging under short journey operation and their ability to provide excellent protection under long haul conditions. However, these grades are not recommended for engines where the manufacturers specify a lubricant of MIL-L-2104C or Series III performance standards or equivalent.

BENEFITS

- Provides efficient lubrication over wide range of operating temperatures.
- Excellent control of oxidation, corrosion and wear.
- Controls oil consumption.

PERFORMANCE STANDARDS

SAE	10,20,30,40,50
API	CC/SD
US MIL	2104B

TYPICAL DATA

PSO DEO 2000	SAE 10	SAE 20	SAE 30	SAE 40	SAE 50
Kinematic Viscosity @100°C, cSt ASTM D445	6.1	9.15	10.9	14.8	19.5
Viscosity Index ASTM D2270	104	102	100	100	99
Flash Point (COC), °C ASTM D92	206	220	230	240	250
Pour Point, °C ASTM D97	-25	-6	-6	-6	-6
Total base Number, mg KOH/g ASTM D2896	5.0	5.0	5.0	5.0	5.0

These typical characteristics are of existing production. The future production will conform to PSO blending specifications hence any variation in these characteristics will not effect the product performance.

PSO DEO 1000

Diesel Engine Oil

DESCRIPTION

PSO DEO 1000 series is formulated from good quality base oils which incorporate a balanced additives package to meet the demands of both diesel and petrol engine vehicles used under moderate to severe service conditions.

APPLICATIONS

The PSO DEO 1000 ranges of oils are available in five versions, and have been specially designed for mixed fleet operation under arduous conditions

PERFORMANCE STANDARDS

SAE	10,20,30,40,50
API	CC/SC
US MIL	2104B

These oils meet API service SC/CC as well as MIL-L-2104B and are not recommended for super-charged engines where the manufacturers specify a lubricant of API service CD or MIL-L-2104C performance standards.

BENEFITS

- Provide efficient lubrication over a wide range of operating temperatures.
- Excellent control of oxidation, corrosion and wear.
- Controls oil consumption.

TYPICAL DATA

PSO DEO 1000	SAE 10	SAE 20	SAE 30	SAE 40	SAE 50
Kinematic Viscosity @ 100°C, cSt ASTM D445	4.5	8.7	10.8	14.8	20
Viscosity Index ASTM D2270	100	100	100	100	100
Flash Point (COC), °C ASTM D92	204	220	230	240	250
Pour Point, °C ASTM D97	-25	-6	-6	-6	-6
Total base Number, mg KOH/g ASTM D2896	4	4	4	4	4
Suphated Ash, wt % ASTM D874	0.3	0.3	0.3	0.3	0.3

These typical characteristics are of existing production. The future production will conform to PSO blending specifications hence any variation in these characteristics will not effect the product performance.

ECO ENGINE CC OIL

Good Performance Engine Oil

DESCRIPTION

ECO Engine CC Oil is a good performance oil designed to meet the requirements of naturally aspirated gasoline and diesel engines working under moderate service conditions requiring API CC or SC performance level.

APPLICATIONS

ECO Engine CC Oil is suitable for both, automotive and stationary diesel or gasoline engines.

ECO Engine CC Oil is suitable for vans, small trucks, cars and light commercial vehicles.

These oils meet API service SC/CC as well as MIL-L-2104B requirements and are recommended for naturally aspirated engines.

PERFORMANCE STANDARDS

SAE	40, 50
API	CC/SC
US MIL	2104B

BENEFITS

- Provide efficient lubrication over a wide range of operating temperature.
- Excellent control of oxidation, corrosion and wear.
- Controls oil consumption.

TYPICAL DATA

ECO ENGINE CC OIL	SAE 40	SAE 50
Kinematic Viscosity @100°C, cSt ASTM D44	14.56	19.79
Viscosity Index ASTM D2270	82	84
Flash Point (COC), °C ASTM D92	232	240
Pour Point, °C ASTM D97	-6	-6
Total Base Number, mgKOH/g ASTM D2896	4.5	4.61
Sulphated Ash, wt% ASTM D874	0.4	0.4

The values mentioned are typical, depend upon the quality of the base oil available and cannot be used to reject the product. However these properties can be altered to meet the specific requirement of the process/equipment

ECO ENGINE CD OIL

Heavy Duty Engine Oil

DESCRIPTION

ECO Engine CD Oil is a high performance and high detergency lubricant specially blended to meet the stringent requirements of high speed supercharged diesel and petrol engines. This lubricant meet API classification CD & Caterpillar Series III.

APPLICATIONS

ECO Engine CD Oil is suitable for applications requiring performance level of API classification CD & Caterpillar Series III oils.

- Effectively control wear and deposits.
- Protects against rust and corrosion.
- Prevent bearing corrosion and high temperature deposits in diesel engines.

Suitable for use in heavy and light commercial vehicle operated with diesel or gasoline fuel.

PERFORMANCE STANDARDS

ECO Engine CD Oil is a choice for standardizing one oil for a wide variety of both petrol and diesel engines naturally aspirated, turbocharged or supercharged diesel engines operating under the most severe service conditions.

SAE	40, 50,
API	CD/SE
US MIL	2104C
US MIL	46152A
Caterpillar	Series III
CCMC	D1
Japanese	CC

BENEFITS

- Suitable for turbocharged and super-charged diesel engines.

TYPICAL DATA

ECO ENGINE CD OIL	40	50
Kinematic Viscosity @100°C, cSt ASTM D445	14.7	19.7
Viscosity Index ASTM D2270	85	85
Flash Point (COC), °C ASTM D92	240	242
Pour Point, °C ASTM D97	-6	-6
Total Base Number, mgKOH/g ASTM D2896	9.5	9.6
Sulphated Ash, wt% ASTM D874	0.82	0.82

The values mentioned are typical, depend upon the quality of the base oil available and cannot be used to reject the product. However these properties can be altered to meet the specific requirement of the process/equipment

PSO TWO-STROKE OIL

Low Noise, Less Smoke Oil

DESCRIPTION

PSO Two-Stroke oil is a low smoke premium grade gasoline engine oil, which reduces smoke and dramatically extends engine life.

APPLICATIONS

PSO Two-Stroke oil has been specially developed for the lubrication of Two-Stroke automotive gasoline engines. It has a better thermal stability with reduced piston ring sticking, improved detergency and lubricity.

BENEFITS

- Protection against piston cylinder scuffing.
- Protection against ring shaking and exhaust blocking.
- Good rust protection.
- Environment friendly to reduce smoke and noise pollution.

PERFORMANCE STANDARDS

SAE	20
JASO	FB

TYPICAL DATA

PSO Two-Stroke Oil	SAE 20
Kinematic Viscosity @C100°C, cSt ASTM D445	7.14
Viscosity Index ASTM D2270	110
Flash Point (COC), °C ASTM D92	120

These typical characteristics are of existing production. The future production will conform to PSO blending specifications hence any variation in these characteristics will not effect the product performance.

PSO BLAZE 7

DESCRIPTION

PSO Blaze 7 is designed for 4-stroke motorcycle engine lubrication to retain engine power and enhance performance.

APPLICATIONS

PSO Blaze 7 is designed specifically for all types of 4-stroke motorcycle engines.

BENEFITS

- Enhanced engine performance.
- Improved engine and piston rings cleanliness.
- Compatible with leaded and unleaded fuels.
- Increased engine life and engine power retention.

PERFORMANCE STANDARDS

SAE	40
API	SF
JASO	SE

TYPICAL DATA

PSO Blaze 7	SAE 40
Kinematic Viscosity @100°C, cSt ASTM D445	14.5
Viscosity Index ASTM D2270	97
Flash Point (COC), °C ASTM D92	223
Pour Point, °C ASTM D97	-12
Total Base Number, mgKOH/g ASTM D2896	5.3
Sulphated Ash % Wt ASTM D874	0.5

These typical characteristics are of existing production. The future production will conform to PSO blending specifications hence any variation in these characteristics will not effect the product performance.

PSO T-2 OIL

DESCRIPTION

PSO T-2 Oil is a premium quality straight mineral oil derived from high paraffinic crude.

APPLICATIONS

PSO T-2 Oil is mixed with gasoline during the fueling of two-stroke air-cooled or water-cooled engines.

BENEFITS

- Ensures complete burning of the fuel and reduces the noise.
- Provides rust protection to the engine parts

TYPICAL DATA

PSO T-2 Oil	SAE 30
Kinematic Viscosity @100°C, cSt ASTM D445	11.0
Viscosity Index ASTM D2270	75
Flash Point (COC), °C ASTM D92	240
Pour Point, °C ASTM D97	-3

These typical characteristics are of existing production. The future production will conform to PSO blending specifications hence any variation in these characteristics will not effect the product performance.

PSO GEAR OIL EP

(GL - 5)

DESCRIPTION

PSO Gear Oil (GL-5) is formulated from high quality mineral base oils and extreme pressure, anti-corrosion, anti-oxidant additives for use in hypoid and spiral bevel units operating under very severe operating conditions. PSO Gear Oil EP (GL-5) range include two mono and one multi-grade version to satisfy the requirements of various equipments.

APPLICATIONS

PSO Gear Oil (GL-5) is an extreme pressure gear oil for use in axles and some gear boxes, particularly axles working under severe conditions, high loads and high operating temperatures.

PERFORMANCE STANDARDS

SAE	90, 140, 85W-140 80W-90
API	GL-5
US MIL	2105D

BENEFITS

- Excellent load carrying capabilities.
- Increased protection.
- Increased axle life.
- Protects against rust and corrosion.

TYPICAL DATA

PSO Gear Oil EP (GL-5)	SAE 90	SAE 140	SAE 85W-140	SAE 80W-90
Kinematic Viscosity @100°C, cSt ASTM D445	17.4	29.2	25.5	14.0
Viscosity Index ASTM D2270	96	97	96	95
Flash Point (COC), °C ASTM D92	210	230	240	215
Pour Point, °C ASTM D97	-3	-3	-18	-26

These typical characteristics are of existing production. The future production will conform to PSO blending specifications hence any variation in these characteristics will not effect the product performance.

PSO GEAR OIL EP

DESCRIPTION

PSO Gear Oil EP range is a mineral oil based lubricant, which incorporates a special extreme pressure additive to protect the gear teeth under high temperatures and loads that can be experienced in transmission units. PSO Gear Oil EP gear oils also contain anti-oxidant and anti-corrosion additives to give protection against oil oxidation and gear tooth corrosion and anti-foam to minimize the buildup of oil foam.

APPLICATIONS

PSO Gear Oil EP is a multi-purpose gear oil, which is primarily recommended for use in commercial vehicles with spiral bevel final drives. It may also be used for spur and helical gears requiring API GL-4 Performance.

PERFORMANCE STANDARDS

SAE	80, 90, 140, 85W-140
API	GL-4
US MIL	2105

BENEFITS

- Excellent transmission life.
- Excellent noise suppression.
- Smooth gearshift.
- Anti-wear protection.

TYPICAL DATA

PSO Gear Oil EP	SAE 80	SAE 90	SAE 140	SAE 85W-140
Kinematic Viscosity @100°C, cSt ASTM D445	12.0	16.4	29.2	25.5
Viscosity Index ASTM D2270	96	96	97	96
Flash Point (COC), °C ASTM D92	210	230	240	240
Pour Point, °C ASTM D97	-3	-3	-3	-21

These typical characteristics are of existing production. The future production will conform to PSO blending specifications hence any variation in these characteristics will not effect the product performance.

PSO ATF

DESCRIPTION

PSO ATF is a mineral based automatic transmission fluid suitable for certain transmissions, converters and power steering systems. Meets the requirements of the General Motors specifications Type A / Suffix A.

APPLICATIONS

PSO ATF automatic transmission fluid is recommended whenever the manufacturer specifies an oil meeting General Motor Type A/Suffix A specifications.

PERFORMANCE STANDARDS

SAE	20
GM	Type A / Suffix A

BENEFITS

- Excellent gearbox life.
- Easy gear shifts.
- Smooth shifts in automatic transmission.

TYPICAL DATA

PSO ATF	SAE 20
Color	Red
Kinematic Viscosity @100°C, cSt ASTM D445	7.2
Viscosity Index ASTM D2270	140
Flash Point (COC), °C ASTM D92	180
Pour Point, °C ASTM D97	-9

These typical characteristics are of existing production. The future production will conform to PSO blending specifications hence any variation in these characteristics will not effect the product performance.

PSO HYDRAULIC BRAKE FLUID HD

DESCRIPTION

PSO Hydraulic Brake Fluid HD has exceptional Anti Vapour Lock properties, effectively minimising the risk of brake failure due to vaporization of the fluid at very high temperatures experienced in modern disc brake systems. PSO Brake Fluid HD is compatible with the various metals used in braking systems, and offers excellent protection from corrosion and wear. Furthermore, PSO Hydraulic Brake Fluid HD has the seal-swell and lubricating properties required for long trouble free system life.

APPLICATIONS

PSO Hydraulic Brake Fluid is specially formulated for use in automotive disc brake systems. In addition, the fluid is suitable for use in all hydraulic brake systems with the exception of those where a mineral oil based fluid is required. PSO Hydraulic Brake Fluid HD offers a very high level of performance and can safely be used in the most demanding applications.

BENEFITS

- Excellent lubricity properties.
- Mixable with other SAE J 1703 fluids.
- Smooth and safe braking.

PERFORMANCE STANDARDS

SAE	J 1703
FMVSS	116
DOT- 3	

TYPICAL DATA

PSO Hydraulic Brake Fluid HD	PH 7.0-11.5
Kinematic Viscosity @100°C, cSt ASTM D445	1.5
Equilibrium Reflux Boiling Point (ERBP), °C	205
ERBP WET, °C	140

These typical characteristics are of existing production. The future production will conform to PSO blending specifications hence any variation in these characteristics will not effect the product performance.

PSO MP GREASE

DESCRIPTION

PSO MP Grease is a lithium base general purpose automotive grease made from high quality base oils fortified with oxidation and rust inhibitors.

APPLICATIONS

PSO MP Grease is the recommended product for automotive applications where a single product can satisfy the multiple service requirements. It is suitable for wheel bearing linkages, suspensions and general chassis lubrication over a wide range of temperatures.

BENEFITS

- Good oxidation stability which ensures satisfactory performance over recommended service interval.
- Possesses good shear stability combined with high dropping points, it resist leakage from bearing.
- Resist water washing effect of road splash so that it stays where applied to provide continuous lubrication.

PERFORMANCE STANDARDS

NLGI 2

TYPICAL DATA

PSO MP Grease	NLGI 2
Penetration worked @25°C	265-295
Dropping Point	180
Working Temperature Range °C	-30 to 110
BASE	Lithium

These typical characteristics are of existing production. The future production will conform to PSO blending specifications hence any variation in these characteristics will not effect the product performance.



S110
OILS



PSO COMPRESSOR OIL

DESCRIPTION

PSO COMPRESSOR OIL series is high performance Ashless Compressor Lubricant carefully designed with highly refined premium quality base oils to provide extended drain interval. The lubricant is fortified with antiwear agent, Corrosion and Oxidation Inhibitor along with necessary required additives component technology to provide excellent performance during application. PSO COMPRESSOR OIL exceeds the requirement of DIN 51506 VD-L standards as well as DIN 51524 Part2 (2006), ISO 6743 part 4 - HM category and Muller Weingarten (excluding flywheel bearing).

APPLICATIONS

PSO COMPRESSOR OIL meets the requirement of major compressor manufacturer.

Single and multi-stage reciprocating compressor up to the discharge temperature 160 °C.

Compressor where OEM specifies ashless antiwear R&O type oil.

PERFORMANCE STANDARDS

DIN	51506 VD-L
DIN	51524 part 2 (2006)
ISO	6743 part 4 - HM category Muller Weingarten (excluding flywheel bearing)

BENEFITS

- Excellent oxidation stability with extended drain interval.
- Low carbon deposit tendency at the critical area like discharge valve.
- High oxidation stability resist to oil degradation at high discharge temperature.

TYPICAL DATA

PSO COMPRESSOR OIL	ISO VG 68	ISO VG 100	ISO VG 150
Kinematic Viscosity @40°C, cSt 100°C ASTM D445	68.86 8.95	98.88 11.29	151.19 15.69
Viscosity Index ASTM D2270	104	100	106
Flash Point (COC), °C ASTM D92	230	230	230
Pour Point, °C ASTM D97	-15	-15	-15

These typical characteristics are of existing production. The future production will conform to PSO blending specifications hence any variation in these characteristics will not effect the product performance.

PSO SUPER GAS ENGINE OIL PLUS LA & MA

DESCRIPTION

PSO Gas Engine Oil Plus is a super-premium gas engine oil. It meets API CF for diesel fuel or dual-fuel applications and is blended with hydrocracked super refined group III base stocks to provide highest level of oxidation stability and long service life. It has been formulated to deliver super premium performance in natural gas engines operating on a wide range of fuels (pipeline, field or landfillgas).

It has been developed primarily to cope with the emerging requirements of major OEM of gas engines like Caterpillar, Waukesha and Jenbacher to use a Low Ash lubricant with extended drain interval.

APPLICATIONS

PSO Super Gas Engine Oil Plus is designed for spark-ignited gas engines fuelled by natural gas, dual-fuel gas engines ignited by diesel pilot fuel and gas engines fuelled from gas containing sulphur.

Meets the requirement of:

- Caterpillar
- Waukesha
- Jenbacher

BENEFITS

- Provides excellent resistance to oxidation and nitration by minimizing acid formation and providing bearing protection against corrosion, giving reduction in over all maintenance cost.
- A balanced sulphated ash level is optimized to provide resistance against valve surface

deposits and reduces valve face/seat wear because excessive additive treatment will result in formation of deposits causing ignition and valve problems. Avoid sparkplug fouling and enhances the life of valves and spark plugs.

- Higher TBN value is there to neutralize corrosive acids produced during dry and hot combustion, providing protection against corrosion specially when biogas is in use. Thus, gives an extended oil drain interval.
- An advanced component technology consisting of selected detergent/dispersant additives gives exceptional piston and engine cleanliness for maximizing engine life.

PERFORMANCE STANDARDS

API CF

TYPICAL DATA

PSO Super Gas Engine Oil Plus	LA		MA
	30	40	40
Kinematic Viscosity @100°C, cSt ASTM D-445	10.8	14.9	14.5
Viscosity Index ASTM D-2270	150	150	146
Flash Point (COC), °C ASTM D92	220	240	232
Pour Point, °C ASTM D97	-6	-6	-6
Total Base Number, mgKOH/g ASTM D2896	5	5	8.2
Sulphated Ash, Wt % ASTM D874	0.45	0.45	0.74

These typical characteristics are of existing production. The future production will conform to PSO blending specifications hence any variation in these characteristics will not effect the product performance.

PSO TEXOL

DESCRIPTION

These oils are available in 10 viscosity versions for a wide range of selection. PSO Texol oils are blended with good quality straight mineral oils and contain no additives. All grades possess good demulsification characteristics and are designed for application where heavily additive treated oil is not a requirement and also where moderate loads and temperatures are encountered.

APPLICATIONS

PSO Texol grades are blended from good quality solvent refined, high viscosity index base oils and are recommended for the lubrication of compressors, certain type of gear units and totally enclosed steam engines, where conditions are not so exacting as that of steam turbines. These oils can also be used as fine quality bearing oils with advantage since they have a natural resistance to oxidation and corrosion.

BENEFITS

- Good thermal stability.
- possess good water demulsification ability.

PERFORMANCE STANDARDS

ISO VG 22,32,46,68,100,150
220,320,460 and 680.

TYPICAL DATA

PSO Texol	22	32	46	68	100	150	220	320	460	680
Kinematic Viscosity @40°C, cSt ASTM D-445	22	32	46	68	100	150	220	320	460	680
Viscosity Index ASTM D-2270	100	100	100	100	98	98	96	96	96	82
Flash Point (COC), °C ASTM D92	180	195	205	215	230	240	250	255	260	280
Pour Point, °C ASTM D97	-6	-6	-6	-6	-3	-3	-3	-3	-3	-3

These typical characteristics are of existing production. The future production will conform to PSO blending specifications hence any variation in these characteristics will not effect the product performance.

PSO SPINCOT

DESCRIPTION

Spincot range is blended with selective base oils possessing high viscosity index and incorporates a suitable additives package which provides outstanding oxidation stability, high resistance to gumming, sludging and discoloration. The film of these oils has high shear stability, which ensures minimum wear even with shock loads. These oils contain an effective rust inhibitor and provide protection to metal parts against rusting. They are also inhibited with anti-foam additive to resist foaming tendency in service.

APPLICATIONS

PSO Spincot oils are additive type low viscosity lubricants for high-speed spindles, particularly those used in the textile and machine tool industries. These oils are also used advantageously as hydraulic media for various hydraulic systems, where low viscosity and high viscosity index oils are recommended. These oils are suitable for use as instrument oil as well.

BENEFITS

- Good oxidation stability.
- Good thermal stability.
- Protection against rusting of metal parts.

PERFORMANCE STANDARDS

ISO VG 10, 15

TYPICAL DATA

PSO Spincot	ISOVG 10	ISOVG 15
Kinematic Viscosity @ 40°C, cSt ASTM D445	10	15
Viscosity Index ASTM D2270	98	98
Flash Point (COC), °C ASTM D92	132	132
Pour Point, °C ASTM D97	-9	-9

These typical characteristics are of existing production. The future production will conform to PSO blending specifications hence any variation in these characteristics will not effect the product performance.

PSO HYGROL

DESCRIPTION

PSO Hygrol oils are blended from high quality mineral oils and a package of anti-oxidant, anti corrosion and anti foam additives. These oils meet the most stringent requirements of hydraulic lubricants. PSO Hygrol are readily available in ten viscosity versions to suit the ambient operating temperature requirements as well as the type and design of hydraulic pump and the operating pressure requirements of the system involved.

APPLICATIONS

PSO Hygrol oils are an extensive range of premium quality hydraulic lubricants. Their application covers both mobile and stationary industrial system / equipment. By virtue of their being a good quality hydraulic fluid, they can also be used as an excellent general-purpose machine lubricant.

- Resist against tendency to foam, thus minimize the risk of spongy and erratic pump operation.

PERFORMANCE STANDARDS

ISO VG 22,32,46,68,
100,150,220,
320,460 and 680.

BENEFITS

- Good oxidation stability.
- Excellent protection against rusting of ferrous parts. Suitable for use over a wide temperature range.
- Excellent general purpose bearing and circulating oils.

TYPICAL DATA

PSO HYGROL	22	32	46	68	100	150	220	320	460	680
Kinematic Viscosity @40°C, cSt ASTM D-445	22	32	46	68	100	150	220	320	460	680
Viscosity Index ASTM D-2270	95	95	95	95	95	95	95	95	95	95
Flash Point (COC), °C ASTM D92	180	195	205	215	230	240	250	255	270	280
Pour Point, °C ASTM D97	-6	-6	-6	-6	-3	-3	-3	-3	-3	-3

These typical characteristics are of existing production. The future production will conform to PSO blending specifications hence any variation in these characteristics will not effect the product performance.

PSO HYGROL AW

DESCRIPTION

PSO Hygrol AW oils are blended from high quality mineral oils and are treated with additives to inhibit corrosion, foaming, oxidation, wear and scuffing. These oils are available in a number of viscosity grades to suit various ambient and operating temperature requirements as well as the type and design of hydraulic pump and operating pressures in the system.

APPLICATIONS

PSO Hygrol AW oils are premium quality hydraulic oils containing highly effective anti-wear agent to prevent wear and scuffing of heavily loaded hydraulic system components. They meet the full service requirements of Vickers Vane type hydraulic pumps at stated speed and pressures. They can also be effectively used as general-purpose lubricant where mineral oil of high performance is required.

BENEFITS

- High Anti-wear performance reduced component wear, particularly at high speed and temperature.
- Long oil life due to thermal stability and oxidation resistance.

- Good water tolerance and demulsification characteristics, allowing rapid separation of condensation or water contamination.
- Good rust and water corrosion protection of metal surfaces.
- Low foaming and air entrenchment tendencies.

PERFORMANCE STANDARDS

ISO VG 10,15,22,32,46,
68,100 and150

TYPICAL DATA

PSO HYGROL AW	10	15	22	32	46	68	100	150
Kinematic Viscosity @40°C, cSt ASTM D-445	10	15	22	32	46	68	100	150
Viscosity Index ASTM D-2270	98	98	100	99	100	98	98	98
Flash Point (COC), °C ASTM D92	130	140	180	195	205	215	230	240
Pour Point, °C ASTM D97	-6	-6	-6	-6	-6	-6	-3	-3

These typical characteristics are of existing production. The future production will conform to PSO blending specifications hence any variation in these characteristics will not effect the product performance.

PSO TURBINE OIL T- SERIES

DESCRIPTION

PSO Turbine Oil T-series is blended from highly refined group II hydrofinished base oils with excellent oxidation stability which is further enhanced with selective additive system and to protect against corrosion of ferrous and non-ferrous metals. PSO Turbine Oil T-series exhibit excellent stability and long since life in the lubrication systems of steam and gas turbines.

APPLICATIONS

PSO Turbine Oil T-series oils are primarily intended for the lubrication of steam turbines, base oils used are selected to give the requisite water separation characteristics, resistance to foaming and the good air entrenchment properties essential for this demanding application.

PSO Turbine Oil T-series oil is also suitable for water turbines, the power turbines of generating sets based on aero derived gas turbines and for many industrial gas turbines.

PSO Turbine Oil T-series have been well proven in all of these applications, together with many other industrial applications where a high quality lubricating oil is required.

Where the viscosity grade is appropriate, PSO Turbine Oil T-series can be used in circulating systems for pumps, motors, compressors, mist lubrication systems and hydraulics, including hydraulic turbine control systems benefits

BENEFITS

- Excellent thermal and oxidation stability.
- Good water tolerance and demulsification characteristics.
- Protects against corrosion of ferrous and non-ferrous parts.
- Resists foaming and ability to release entrenched air quickly.

These typical characteristics are of existing production. The future production will conform to PSO blending specifications hence any variation in these characteristics will not effect the product performance.

PSO TURBINE OIL T- SERIES

TYPICAL DATA

PSO Turbine Oil T-Series ISOVG	32	46	68	100
Kinematic Viscosity @ 40 °C, cSt (ASTM D445)	32	46	68	100
Viscosity Index ASTM D2270	96	96	96	96
Flash Point (COC), °C ASTM D92	205	210	215	215
Pour Point, °C ASTM D97	-24	-24	-24	-24
Neutralisation, N° , (ASTM D-974/IP 139)	0.10	0.10	0.10	0.10
Water Separation, mins (ASTM D-1401)	10	10	10	10
Foaming Properties, ml (ASTM D-892)				
Sequence I, 24°C	200/0	200/0	200/0	150/0
Sequence II, 93.5°C	50/0	50/0	50/0	50/0
Sequence III, 24°C	200/0	200/0	200/0	150/0
Copper Corrosion, 3 Hrs @ 100°C, Class (ASTM D-130/IP-154)	1	1	1	1
TOST hrs to 2.0 (ASTM D-943/IP-157)	>2000	>2000	>2000	>2000
Rotating Bomb Oxi Tests, mins (ASTM D-2272)	350	350	350	350

These typical characteristics are of existing production. The future production will conform to PSO blending specifications hence any variation in these characteristics will not effect the product performance.

PSO GEARLED EP

DESCRIPTION

PSO Gearled EP gear oils are available in seven-viscosity range (VG 68 - VG 680). These are lead free extreme pressure gear oils designed for industrial gear lubrication. They have better water tolerance, exhibiting good demulsification characteristics and low foaming tendencies, also providing rust and corrosion protection of metal surfaces.

These oils are formulated from high quality mineral oils and additives containing sulphur-phosphorus compounds to impart anti-wear and extreme pressure properties. PSO Gearled EP oils demonstrate improved thermal stability and oxidation resistance over conventional lead naphthenate types.

APPLICATIONS

PSO Gearled EP oils are primarily intended for enclosed gear sets operating under severe service conditions. They are recommended for gear boxes in heavy industries such as steel plants, sugar and cement mills etc

BENEFITS

- Excellent load carrying capability.
- Excellent gearbox service life.
- Protect against corrosion.
- Excellent thermal and oxidation stability.
- Good anti-wear performance.

PERFORMANCE STANDARDS

ISOVG 68,100,150,220,
320,460,680

Meet the performance requirement of:

- US Steel 224
- AGMA 9005-D94
- DIN 51517 Part 3
- David Brown DB S1.53.101
- Cincinatti Miacron P74.

TYPICAL DATA

PSO Gearled EP	68	100	150	220	320	460	680
Kinematic Viscosity @40°C, cSt ASTM D-445	68	100	150	220	320	460	680
Viscosity Index ASTM D-2270	100	100	99	100	100	98	82
Flash Point (COC), °C ASTM D92	215	220	220	225	230	240	240
Pour Point, °C ASTM D97	-6	-3	-3	-3	-3	-3	-3

These typical characteristics are of existing production. The future production will conform to PSO blending specifications hence any variation in these characteristics will not effect the product performance.

PSO LOW POUR OIL

DESCRIPTION

These oils have been blended from highly refined paraffinic mineral base oils with low pour points and good oxidation resistance for providing excellent lubrication for many industrial and processing applications. They also incorporate selective pour points depressant to lower the pour point beyond the neutral capability of oils.

APPLICATIONS

PSO Low Pour oil is a range of lubricants designed to meet requirements of low temperature operations of various type of refrigerators and air conditioning compressors using halogenated refrigerant such as Freon etc. These are low cost locally blended products, which do not acclaim meeting international specifications laid down for oils used in refrigerator and air-conditioning compressors. However their market acceptability is good as a local suitable product.

PERFORMANCE STANDARDS

ISOVG 22, 32, 46, 68, 100 and 150

BENEFITS

- Good oxidation stability.
- Good rust protection.
- Low Pour points.
- Resists formation of deposits in high temperature parts of refrigeration system.
- Suitable for use in bearing and gear sets operating at low temperature.

TYPICAL DATA

PSO Low Pour Oils	22	32	46	68	100	150
Kinematic Viscosity @40°C, cSt ASTM D-445	22	32	46	68	100	150
Viscosity Index ASTM D-2270	100	99	100	98	97	98
Flash Point (COC), °C ASTM D92	180	195	205	215	230	240
Pour Point, °C ASTM D97	-27	-27	-27	-27	-24	-24

These typical characteristics are of existing production. The future production will conform to PSO blending specifications hence any variation in these characteristics will not effect the product performance.

PSO CYLINDER OIL M

DESCRIPTION

These oils are blended from high quality neutral solvent and bright stock of low acid value. These grades have reasonable water tolerance and can deal with steam condensates without impairing their lubricating efficiency. PSO cylinder oils are straight mineral oil blend and are not compounded with vegetable or animal oil.

APPLICATIONS

These are highly viscous lubricating oils developed for saturated steam cylinder lubrication, enclosed gears and other machine parts, where a thick grade of lubricant is required.

BENEFITS

- Excellent choice in application requiring high viscosity straight mineral oils.
- Good lubricating properties.
- Good demulsification characteristics.

PERFORMANCE STANDARDS

ISOVG 460, 680

TYPICAL DATA

PSO Cylinder Oil M	500	700
Kinematic Viscosity @40°C, cSt ASTM D-445	460	680
Viscosity Index ASTM D-2270	95	80
Flash Point (COC), °C ASTM D92	216	230
Pour Point, °C ASTM D97	-3	-3

These typical characteristics are of existing production. The future production will conform to PSO blending specifications hence any variation in these characteristics will not effect the product performance.

PSO SUGAR MILL OIL

DESCRIPTION

These oils are asphalted blends with suitable base stock fortified with extreme pressure additives. These oils provide excellent load carrying properties under boundary lubrication and are available in three viscosity ratings to meet the specific requirements.

APPLICATIONS

These lubricants are specially designed for lubrication of MILL HOUSE BEARINGS of Sugar Mills where total loss system of lubrication is employed, requiring viscous lubricants with high load carrying properties.

BENEFITS

- Good film forming characteristics.
- Excellent load carrying and EP properties.
- Withstand under shock load conditions, without rupturing of lubricating oil film.
- Satisfactory for use with yellow/white metal bearing due to low acidity of oil.
- Forms, full hydrodynamic film of lubricant with high shear stability.

TYPICAL DATA

PSO Sugar Mill Oil	3200	3800	4200
Kinematic Viscosity 100°C cSt ASTM D-445	93	110	155
Viscosity Index ASTM D-2270	75	75	75
Flash Point (COC), °C ASTM D92	230	235	240
Color	Black	Black	Black

These typical characteristics are of existing production. The future production will conform to PSO blending specifications hence any variation in these characteristics will not effect the product performance.

PSO BEARING COMPOUND

DESCRIPTION

These oils are similar to Sugar Mill Oils, both in choice of base oils and additive treatment. But to improve their performance specially selected tackiness additives are incorporated in this formulation, which adhere strongly with metal surfaces. These grades contain special tackiness agent and extreme pressure additives to provide maximum protection under boundary lubrication conditions.

APPLICATIONS

These special grades are developed for MILL HOUSE PINION BEARINGS with added property of adherence where total loss system of lubricants is employed. These grades offer extra protection to Mill House bearing because of their strong film forming properties.

BENEFITS

- Excellent load carrying properties.
- Forms a strong oil film between the moving parts.
- Provides a strong power of adhesion and wetting quality even under extreme pressure and high load working condition.
- Satisfactory for use with yellow/white metal bearings.

TYPICAL DATA

PSO Bearing Compound	T-96	C
Kinematic Viscosity 100°C cSt ASTM D-445	120	105
Viscosity Index ASTM D-2270	75	75
Flash Point (COC), °C ASTM D92	235	230

These typical characteristics are of existing production. The future production will conform to PSO blending specifications hence any variation in these characteristics will not effect the product performance.

PSO GEAR & WIRE ROPE COMPOUND

DESCRIPTION

These are Asphaltic viscous lubricants having good adhesion to the metal surfaces. These non-corrosive lubricants form a thick tenacious protective coating on metal surfaces. These lubricants are available in seven-viscosity ranges to suit specific applications. The asphaltic matters in the lubricants provide extreme pressure characteristics. PSO Gear & Wire Rope Compound R-96 is fortified with high quality extreme pressure sulphur-phosphorous additives.

APPLICATIONS

PSO Gear & Wire Rope Compound is a range of adhesive type low cost lubricants for exposed gear & wire rope telfers and conveyors on colliery and quarry etc. These are recommended for comparatively rough gearing running at modest speed in locations where they are exposed to leather, sea spray etc.

BENEFITS

- Forms a thick tenacious coating on metal surfaces.
- Available in seven viscosity versions to suit specific application.
- Protects metal surfaces from corrosion.
- Suitable for large open gears.

TYPICAL DATA

PSO G&WR Comp	A	C	D	F	G	H	R-96
Kinematic Viscosity 100°C cSt ASTM D-445	40	100	210	425	850	1140	120
Flash Point (COC), °C ASTM D92	230	236	238	240	250	260	235
Color	Black	Black	Black	Black	Black	Black	Black

These typical characteristics are of existing production. The future production will conform to PSO blending specifications hence any variation in these characteristics will not effect the product performance.

PSO HEAT TRANSFER OIL

DESCRIPTION

These oils are blended carefully with selective base stocks having natural thermal stability preventing breakdown in service. Base stock components are chosen in such a manner that these will provide resistance to evaporation at high temperature. These oils also have high viscosity index so that any appreciable change in viscosity does not affect heat transfer efficiency of the oil.

APPLICATIONS

PSO Heat Transfer oils are chosen for high temperature operation because of their good thermal stability and are used both for heat systems in works processing, space heating and viscosity baths. In air excluded systems, these products are satisfactory upto a temperature of 300°C. Localized temperatures may be avoided to prevent thermal breakdown of the oil which can lead to carbon formation

PERFORMANCE STANDARDS

ISOVG 32, 100, 460

BENEFITS

- Bulk temperature could be increased upto 300 C under carefully controlled condition.
- Good rust protection.
- Good oxidation stability.

TYPICAL DATA

PSO HEAT TRANSFER OIL	32	100	460
Kinematic Viscosity @40°C, cSt ASTM D-445	32	100	460
Viscosity Index ASTM D-2270	98	97	95
Flash Point (COC), °C ASTM D92	190	230	265
Pour Point, °C ASTM D97	-6	-3	-3

These typical characteristics are of existing production. The future production will conform to PSO blending specifications hence any variation in these characteristics will not effect the product performance.

PSO SOLCUT OIL

DESCRIPTION

PSO Solcut is a general purpose oil which forms a stable milky emulsion when mixed with water. This oil contains an effective emulsifier system and biocide.

APPLICATIONS

PSO Solcut oil is specially formulated for the particular requirements of mild / moderate machining operations which generate excessive heat where an effective coolant rather than a lubricant is the essential requirement. It is suitable for use in machines of all metals, ferrous and non-ferrous, except magnesium. (Soluble oil promotes burning of magnesium metal). PSO Solcut Oil due to its' tendency to permit setting of dirt is also recommended for most grinding operations.

BENEFITS

- Permit rapid separation of chips and grinding dirt.
- Permit reasonably good protection and good cutting characteristics.
- Forms stable emulsion in soft/hard water.

TYPICAL DATA

PSO Solcut Oil	Mild Steel	Alloy Steel	Free cutting Brasses
Milling, Turning, Drilling	1:25	1:20	1:35
Reaming, Tapping & Screwing	1:25	1:25	1:35
Grinding	1:40	1:40	1:40

These typical characteristics are of existing production. The future production will conform to PSO blending specifications hence any variation in these characteristics will not effect the product performance.

PSO NEAT METAL CUTTING OIL

DESCRIPTION

PSO Neat Metal Cutting Oil is a light-color, high-sulphur-content polysulfide that provides outstanding extreme pressure properties. This oil-soluble additive is recommended for use in oil-base soluble oil and semi-synthetic systems for metal removal and metal forming applications on ferrous metals. PSO Neat Metal Cutting Oil is synergistic with other extreme pressure chemistries – including chlorinated paraffins and alphaolefins, overbased sulfonates and synthetic esters and provides outstanding performance on difficult-to-machine metals. PSO Neat Metal Cutting Oil is overbased with synthetic calcium sulfonate extreme pressure additive that also provides corrosion protection.

APPLICATIONS

PSO Neat Metal Cutting Oil is recommended for machining both ferrous and non-ferrous metals. Suitable for machining high alloy, stainless steel and mild metals. In addition, it maintains reserve basicity that performs as an effective rust/corrosion inhibitor.

- Non-staining
- Excellent rust inhibition
- Low odor

PSO Neat Metal Cutting Oil is recommended to machine tough ferrous alloys as well as mild steel and cast iron in such operations as:

- Milling
- Drilling
- Turning
- Grinding
- Broaching
- Thread Cutting
- Tapping
- Metal Forming

BENEFITS

- Mild odor, light colour
- Combinations with chlorinated paraffins or alphaolefins, overbased sulfonates are suitable for machining high alloy and stainless steel metals.
- Does not affect the transparency of cutting fluids, provides high work piece visibility. Excellent extreme pressure/antiwear properties.
- More environmentally acceptable
- Provides good surface finishes

PERFORMANCE STANDARDS

ISOVG 22

TYPICAL DATA

PSO Neat Metal Cutting Oil	
Kinematic Viscosity @40°C, cSt (ASTM D-445)	22.16
Viscosity Index ASTM D2270	105
Flash Point (COC), °C ASTM D92	178
Pour Point, °C ASTM D97	-33
TBN mg KOH/g ASTM 2896	19

These typical characteristics are of existing production. The future production will conform to PSO blending specifications hence any variation in these characteristics will not effect the product performance.

PSO QUENCHING OIL NO. 10

DESCRIPTION

This is blended with selected base oils to assist in rapid heat dissipation. The base oils have the property of low volatility, high flash point and improved degree of oxidation stability so that the rate of heat dissipation is not impaired mainly on account of loss of lighter fractions.

APPLICATIONS

This oil is employed for the heat treatment of metals as quenching media to acquire correct tempering of high Carbon Steel tools and other accessories

PERFORMANCE STANDARDS

ISOVG 32

BENEFITS

- Good oxidation stability
- Good thermal stability.

TYPICAL DATA

PSO Quenching Oil No. 10	ISO VG 32
Kinematic Viscosity @40°C, cSt ASTM D-445	32
Viscosity Index ASTM D2270	96
Flash Point (COC), °C ASTM D92	190
Pour Point, °C ASTM D97	-6

These typical characteristics are of existing production. The future production will conform to PSO blending specifications hence any variation in these characteristics will not effect the product performance.

PSO SLIDE WAY OIL

DESCRIPTION

PSO Slide Way Oils are based upon highly refined mineral oils, which incorporate tackiness and lubricating additives to give smooth sideway movement under heavy loads.

APPLICATIONS

PSO Slide Way Oil 32 is recommended for machine tools with combined hydraulic and slide way lubrication.

PSO Slide Way Oil 68 is the normal recommendation for horizontal sideways.

PSO Slide Way Oil 220 is used on heavily or vertical slides.

PERFORMANCE STANDARDS

ISOVG 32, 68, 220

BENEFITS

- Smooth slide way movement
- Smooth for all types of slide way material.
- Good protection against corrosion and staining.
- Good load carrying capability under heavy loads.

TYPICAL DATA

PSO Slideway Oil	32	68	220
Kinematic Viscosity @ 40°C, cSt ASTM D-445	32	68	220
Viscosity Index ASTM D2270	95	95	95
Flash Point (COC), °C ASTM D92	190	210	220
Pour Point, °C ASTM D97	-6	-3	-3
Phosphorus, % wt	0.28	0.28	0.28

These typical characteristics are of existing production. The future production will conform to PSO blending specifications hence any variation in these characteristics will not effect the product performance.

PSO PROCESS OIL R

DESCRIPTION

PSO Process Oil R is blended with high quality base stocks, possessing natural resistance to oxidation and thermal breakdowns. This is a premium grade straight mineral oil containing no additives, by virtue of its high viscosity and other properties, it is suitable for use in many industrial applications where a thick lubricant once through application is required. This grade is also suitable for systems where the oil stays relatively for shorter periods.

APPLICATIONS

This oil is a general-purpose non-additive treated oil of reasonably good oxidation stability used for a variety of process applications and is also suitable for once through lubrication of industrial machinery.

BENEFITS

- Excellent choice in application requiring high viscosity straight mineral oils.
- Good lubricating properties.
- Good demulsification characteristics.

PERFORMANCE STANDARDS

ISOVG 460

TYPICAL DATA

PSO Process Oil R	ISOVG 460
Kinematic Viscosity 40°C, cSt ASTM D-445	460
Viscosity Index ASTM D2270	98
Flash Point (COC), °C ASTM D92	260
Pour Point, °C ASTM D97	-3

These typical characteristics are of existing production. The future production will conform to PSO blending specifications hence any variation in these characteristics will not effect the product performance.

PSO TRANSFORMER OIL

DESCRIPTION

PSO Transformer Oil BS-148 class I is a pure mineral hydrocarbon oil, specially refined and blended from selected base oils having the properties of insulating coils of transformers, switches and circuit breakers both, electrically and thermally. This oil is produced according to IEC Class I specification suitably adjusted for tropical areas. The oil is refined in such a way that it imparts exceptional high oxidation and high resistance to gas formation. The oil shows high degree of dielectric properties and resistance to power losses. Well-stabilized methods are used to control the quality of the oils in order to meet international standard specification and maximum trouble free service. It also meets the specification of BS-148/72.

APPLICATIONS

A range of insulating cooling oil for electrical transformer, switchgears and circuit breakers.

BENEFITS

- Good oxidation stability.
- Meets IEC-296, BS-148/72 specifications.

TYPICAL DATA

PSO Transformer Oil	Class I
ISOVG	15
Kinematic Viscosity @ 20°C, cSt 40°C, cSt (ASTM D-445)	40 16.5
Flash Point (PMCC), °C min ASTM D93	140
Pour Point, °C max ASTM D97	-30
Breaking Voltage, KV, min IEC / BSS 148	30

These typical characteristics are of existing production. The future production will conform to PSO blending specifications hence any variation in these characteristics will not effect the product performance.

PSO ALPHA / ALPHA EP GREASES

DESCRIPTION

A range of high quality lithium thickened mineral oil greases suitable for ball and roller bearing lubrication. They contain oxidation and corrosion inhibitors. PSO Alpha EP greases also contain extreme pressure additives.

APPLICATIONS

PSO Alpha Greases 2&3 are multi-purpose greases suitable for lubrication of all types of plain and roller bearings and have good water resistance and give excellent protection against corrosion.

- Good water tolerance.
- PSO Alpha EP greases protect bearing components subjected to heavy shock loadings.

PSO Alpha EP range of Lithium base extreme pressure greases are for use in application where bearings are subjected to shock loading. They are all waterproof and can cater to high temperature.

PERFORMANCE STANDARDS

NLGI 0, 1, 2, 3

BENEFITS

- Good oxidation stability which ensure satisfactory performance over recommended service interval.
- Protect bearing components against rust resist water washing effect.

TYPICAL DATA

PSO Greases	Alpha-2	Alpha-3	Alpha EP-0	Alpha EP-1	Alpha EP-2
	NLGI-2	NLGI-3	NLGI-0	NLGI-1	NLGI-2
Penetration Worked @ 25°C	265-295	220-250	355-385	310-340	265-295
Dropping Point °C	180	180	175	180	180
Working Temperature Range °C	-35 to 104	-35 to 104	-	-	-
Base	Lithium	Lithium	Lithium	Lithium	Lithium

These typical characteristics are of existing production. The future production will conform to PSO blending specifications hence any variation in these characteristics will not effect the product performance.

PSO MOLY GREASE EP

DESCRIPTION

A lithium based multi purpose grease containing Molybdenum disulphide. This grease also have EP protection to withstand shock loads.

APPLICATIONS

PSO Moly Grease EP-2 is specially recommended for heavily loaded slow or medium speed bearing and sliding motions where the prevention of scuffing is necessary.

PERFORMANCE STANDARDS

NLGI 2

BENEFITS

- Reduced wear.
- Prevention of scuffing .
- Resistance to water and rust.
- Provide effective lubrication under boundary condition.

TYPICAL DATA

PSO MOLY GREASE EP	NLGI-2
Penetration worked @ 25 °C	265-295
Dropping Point	190
Working Temperature Range °C	-
Base	Lithium

These typical characteristics are of existing production. The future production will conform to PSO blending specifications hence any variation in these characteristics will not effect the product performance.