mirOil
PRODUCTS CATALOUGE

Automotive Oils / Industrial Oils / Greases

mir oil

Our thought is:

Get closer than ever to your customers so close that you tell them what they need well before they realize it themselves.

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Contents

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www.miroil.com.tr

Product Guide

MirOil
Lubricants team can help

MirOil
is a problem solver

MirOil
is your partner for your business

PRODUCT NAME	CAR NAME
• MirOil Motor Oil SN 0W-20	Hyundai SONATA Hybrid – Toyota Perios
• MirOil Motor Oil SN 5W-30	**Porsche – Lexus – Mercedes Benz – BMW X٤ – BMW X٦ – BMW** X3
• MirOil Motor Oil SN 10W-40	CHAN GAN Cs35 – CHAN GAN EADO
• MirOil Motor Oil SM 5W-40	Mazda 3 New – Mazda 6 – Lexus Gs 430 – Lexus LS300 – Lexus RX – Lexus SC 430 Lexus ES 3502013 – Renault Koleos 2000 CC – Renault Capture turbo – Sportage KIA QL KIA CERATO NEW – KiA CERATO 1600 – KIA CERATO 1800 – KIA CERATO 2000 KIA CERATO NEW – KIA CERATO cupe – picanto – motlave – Karnival – Peugeot407 Optima KIA – KIA Sorento – KIA Murano – KIA Murano Z50 – QASHQAI – Nissan Tiana Hyundai SONATA YF/LF – Azera Grandeur – Hyundai Genesis – Hyundai iX55 Hyundai Santafe – Hyundai iX35 – Hyundai i20 – Hyundai i30 – Hyundai i10 – Cadenza
• MirOil Motor Oil SL 10W-40	Saina – SOREN ELX – RUNNA – DENA – DENA PLUS – Samand ELX – Peugeot 206 SD Peugeot 405 SLX – Peugeot 405 xu7 – Peugeot Plus 407 – Peugeot ELX Tu7–Peugeot207 Renault SANDRO – Peugeot Pars – Renault L90 – Renault Pars Tondar – Renault MEGAN JAC S5 – JAC J3 – JAC J5 – Brilliance V5 – Brilliance H320 – Brilliance H33 – Brilliance H230 – Pride 131 SE – Pride 131 SE CNG – TIBA – TIBA CN6 – TIBA2 – FiAT Ciena MVM 110 – MVM 315 – MVM 530 – MVM X33 – MVM X33 NEW v Suzuki Vitara – C5 Suzuki Kizashi – Rich – MG6 – Mazda 2 – Mazda 3 – Mazda323 – SsANGYyANG Volkswagen Gol – LIFAN X60 – LiFAN 620 – LiFAN 820 – Ario S300
• MirOil Motor Oil SL 20W-50	Samand LX – Samand SE – Samand SOREN – Samand EL
• MirOil Motor Oil SJ 20W-50	Pajero – GEELY Em Grand – Nissan Maxima – Nissan Seranza – Nissan Picap – Nissan Roniz Peugeot PRAS Xu7 – Zamyad N1 – N16 – Padra – LIFAN 520i – Peykan CNG Arisun – Peugeot 405 GLX
• MirOil Motor Oil SG 20W-50	DAEWOO Cielo – Renault5 – Renault pk – Renault 21 – ROA – Proton viera – Pride SABA Pride nasim – Pride 131 – Pride 132 – Pride 141 – Pride 111 – Nissan 224 – Peykan CNG RD
• MirOil Motor Oil SF 20W-50	Karvan saipa – Peykan – shooka – Pontiac
• MirOil Motor Oil SE 20W-50	Cheverolet – satellite Chrysler – Buick

Product Guide

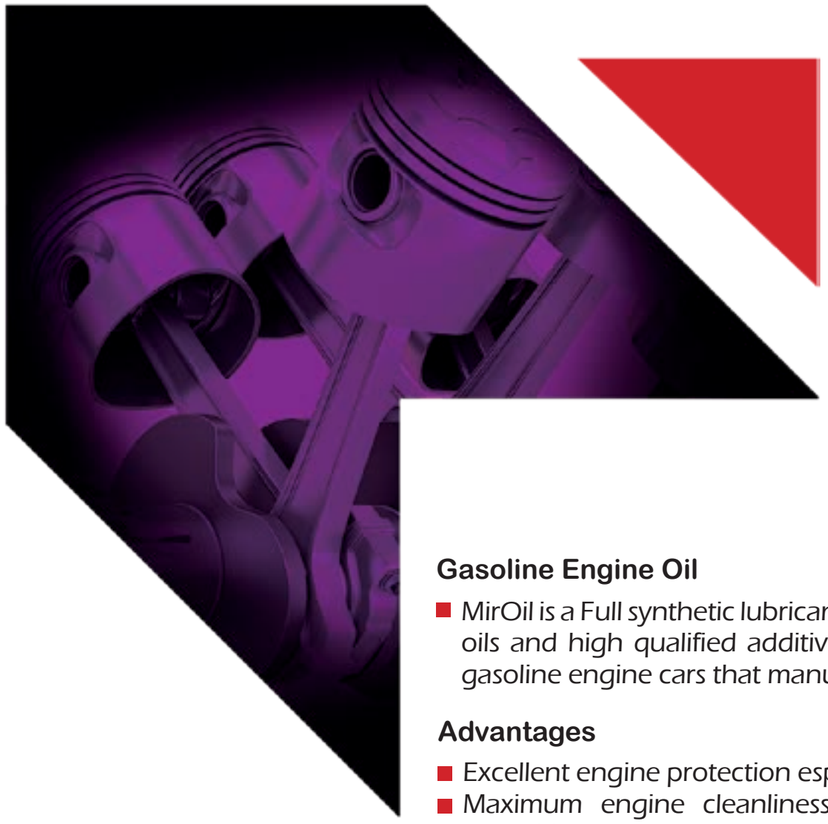
PRODUCT NAME	CAR NAME
• MirOil Diesel Engine Oil • CI-4 15W-40	Volvo FH 480 – Volvo FH 440 – Volvo FH 420 – Volvo FM 440 - Dong Feng kaveh – Dong Feng ALBORZ – Trucker Alvand – Scania Bus – Scania trucker
• MirOil Diesel Engine Oil • CH-4 15W-40	Grander komatsu GD661A- 1 – Dumptruck HD 785 - 5 – Renault Midlum Iveco Starliss – Iveco trucker – Iveco euro – mini Bus chros Hyundai – Bus SC457
• MirOil Diesel Engine Oil • CH-4 20W-50	Innercity Bus – Irankhodro diesel – Bus megatrans – dumptruck – ACTros 33.31 k – Benz -608 Benz CK 1924 – Benz AXOR 2628 – Benz ACTROS 1844 LS Benz WH 1924 – Benz WH 2624 – Benz AXOR 1843 – inner city 6121 mini Bus Higer
• MirOil Diesel Engine Oil • CF-4 15W-40	AMICO M512 – AMICO M1929 – AMICO M2631 - Grander komatsu GD705A- 4 – BUS3012 – BUS2612

Reliable Supply of Sustainable Products

Your supplier should be doing more for you

meet productivity and efficiency challenges

MirOil ENGINE OIL



MirOil

FOUR SEASON LUBRICANT

Gasoline Engine Oil

- *MirOil is a Full synthetic lubricant manufactured by the best synthetic base oils and high qualified additives designed for use in the most modern gasoline engine cars that manufactured after 2012.*

Advantages

- *Excellent engine protection especially against wear and corrosion*
- *Maximum engine cleanliness and minimum sludge formation and deposition*
- *Excellent oxidative and thermal stability*
- *Excellent protection of catalysts*
- *Increase of car's life*
- *Extended oil change intervals*
- *Excellent control of oil consumption leading to eco-friendliness and cost reduction*

MirOil MOTOR OIL

FOUR SEASON LUBRICANT

Specification	SAE Grade								ASTM Test Method
	0W-20	0W-30	5W-30	5W-40	10W-30	10W-40	15W-40	20W-50	
Viscosity @ 100 °C, cSt	7.5	11	11	14.5	11	14.5	14.5	19	D 445
Viscosity Index	170	170	160	160	150	150	140	130	D 2270
Flash Point, °C, Min	200	200	200	200	200	200	200	200	D 92
Pour Point, °C, Max	-39	-39	-33	-33	-30	-30	-24	-24	D 97
TBN, mg KOH/g, Min	6	6	6	6	6	6	6	6	D 2896
Density @ 15 °C, Kg/m³	850	850	852	850	854	860	875	890	D 1298
CCS, cP, Max	-35 °C 6200	-35 °C 6200	-30 °C 6600	-30 °C 6600	-25 °C 7000	-25 °C 7000	-20 °C 7000	-15 °C 9500	D 5293

Mustang: Feral and powerful horse used for long distances

MirOil MOTOR OIL

FOUR SEASON LUBRICANT

Specification	SAE Grade								ASTM Test Method
	0W-20	0W-30	5W-30	5W-40	10W-30	10W-40	15W-40	20W-50	
Viscosity @ 100 °C, cSt	7.5	11	11	14.5	11	14.5	14.5	19	D 445
Viscosity Index	170	170	160	160	150	150	140	130	D 2270
Flash Point, °C, Min	200	200	200	200	200	200	200	200	D 92
Pour Point, °C, Max	-39	-39	-33	-33	-30	-30	-24	-24	D 97
TBN, mg KOH/g, Min	6	6	6	6	6	6	6	6	D 2896
Density @ 15 °C, Kg/m³	850	850	852	850	854	860	875	890	D 1298
CCS, cP, Max	-35 °C 6200	-35 °C 6200	-30 °C 6600	-30 °C 6600	-25 °C 7000	-25 °C 7000	-20 °C 7000	-15 °C 9500	D 5293

MirOil

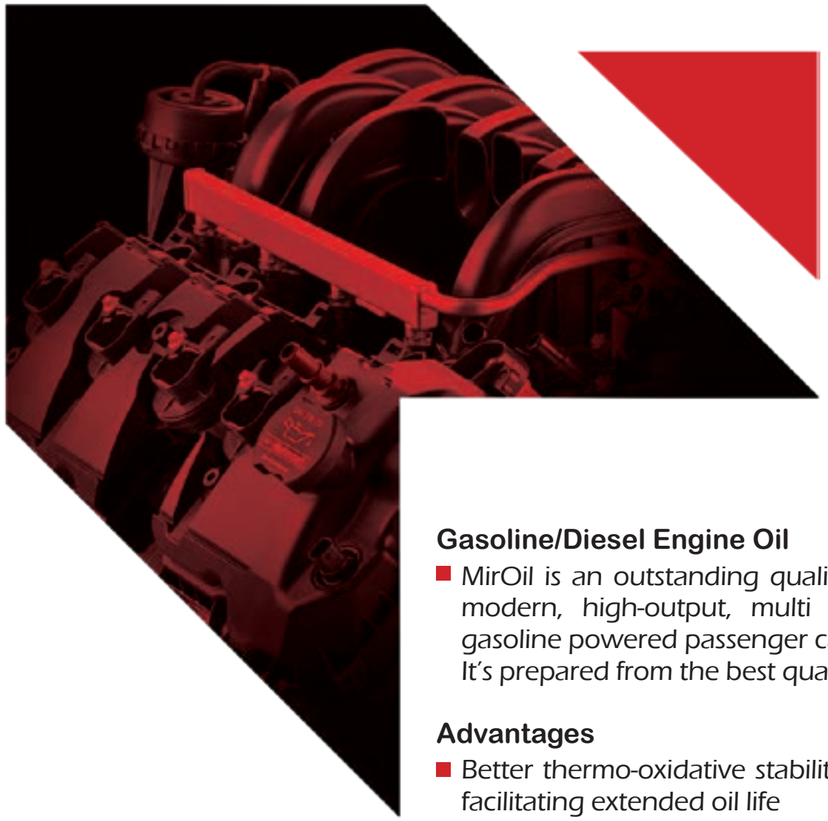
FOUR SEASON LUBRICANT

Gasoline Engine Oil

- *MirOil is a supreme performance passenger car motor oil formulated from the finest quality synthetic base oils and state-of-the-art additive technology for all modern vehicles including high performance, turbo-charged, multi valve, direct injection gasoline and diesel engines of passenger cars.*
  This lubricant is recommended for all modern and high performance vehicles that manufactured after 2005.

Advantages

- *Outstanding oxidative and thermal stability*
- *Extended engine and oil life*
- *Improved fuel economy and extended drain intervals*
- *Excellent low temperature fluidity providing Protection of motors at start-up*
- *Excellent wear protection under all conditions*
- *Maximum engine cleanliness and minimum deposit and sludge build-up*
- *Excellent protection of catalysts*



MirOil

FOUR SEASON LUCRICANT

API SJ

Gasoline/Diesel Engine Oil

- MirOil is an outstanding quality passenger car motor oil developed for modern, high-output, multi valve, turbocharged and supercharged gasoline powered passenger cars and diesel powered light duty vehicles. It's prepared from the best quality additives and the finest base stocks.

Advantages

- Better thermo-oxidative stability minimizes deposits and sludge build-up facilitating extended oil life
- Special rust inhibitors retard the formation of rust and corrosion in critical engine parts
- Active cleaning agents provide engine cleanliness
- Good antiwear technology minimizes engine wear and reduces maintenance cost
- Superior dispersants provide excellent control over soot induced oil thickening

MirOil MOTOR OIL

FOUR SEASON LUBRICANT

Specification	SAE Grade			ASTM Test Method
	10W-40	15W-40	20W-50	
Viscosity @ 100 °C, cSt	14.5	14.5	19	D 445
Viscosity Index	150	130	120	D 2270
Flash Point, °C, Min	200	200	200	D 92
Pour Point, °C, Max	-30	-24	-24	D 97
TBN, mg KOH/g, Min	6	6	6	D 2896
Density @ 15 °C, Kg/m³	860	885	890	D 1298
CCS, cP, Max	-25 °C 7000	-20 °C 7000	-15 °C 9500	D 5293

MirOil MOTOR OIL

FOUR SEASON LUBRICANT

Specification	SAE Grade			ASTM Test Method
	10W-40	15W-40	20W-50	
Viscosity @ 100 °C, cSt	14.5	14.5	19	D 445
Viscosity Index	150	130	120	D 2270
Flash Point, °C, Min	200	200	200	D 92
Pour Point, °C, Max	-30	-24	-24	D 97
TBN, mg KOH/g, Min	6	6	6	D 2896
Density @ 15 °C, Kg/m³	860	885	890	D 1298
CCS, cP, Max	-25 °C 7000	-20 °C 7000	-15 °C 9500	D 5293

MirOil

FOUR SEASON LUBRICANT

API SJ

Gasoline Engine Oil

- MirOil is a premium quality passenger car motor oil formulated by using selected high quality base oils and good performance additives. This lubricant is recommended for modern high performance turbocharged gasoline powered passenger cars and diesel powered light duty vehicles. It may also be used in older vehicles where an API service category SH, SC, SF or commercial category CC quality oil is recommended.

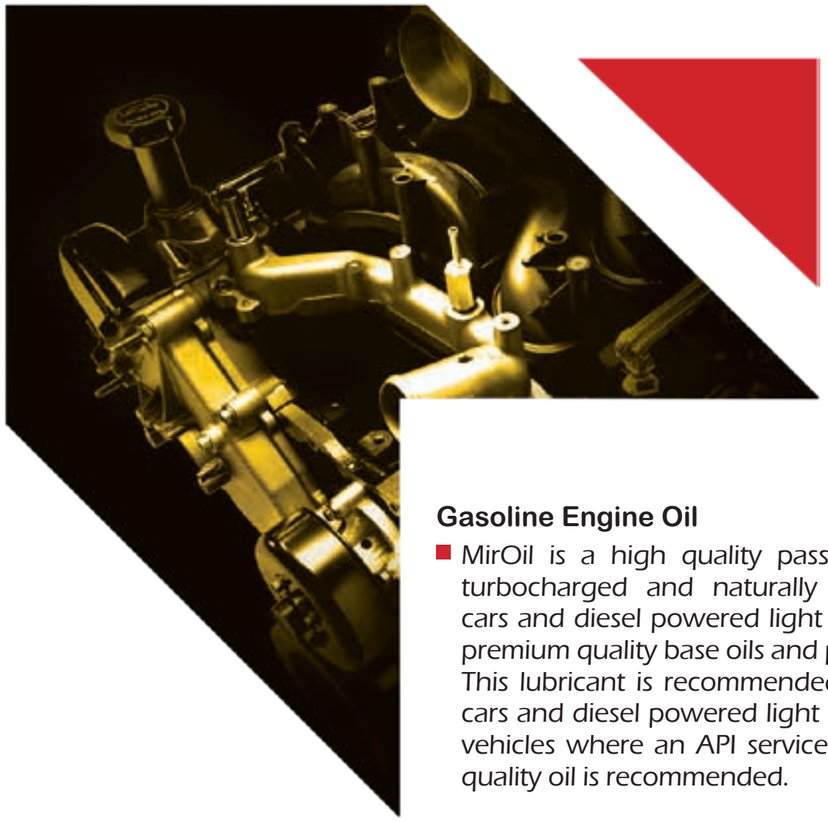
Advantages

- Excellent engine cleanliness
- Effective rust and wear inhibitors for protection of critical engine parts
- Better thermo-oxidative stability minimizes deposits and sludge build-up
- Advanced antiwear technology minimizes engine wear and reduce maintenance cost
- Reliable lubrication even at higher load and operating temperatures

MirOil MOTOR OIL

FOUR SEASON LUBRICANT

Specification	SAE Grade			ASTM Test Method
	10W-40	15W-40	20W-50	
Viscosity @ 100 °C, cSt	14.5	14.5	19	D 445
Viscosity Index	150	130	120	D 2270
Flash Point, °C, Min	200	200	200	D 92
Pour Point, °C, Max	-30	-24	-24	D 97
TBN, mg KOH/g, Min	5	5	5	D 2896
Specific Gravity @ 15 °C, Kg/m^3	860	885	890	D 1298
CCS, cP, Max	-25 °C 7000	-20 °C 7000	-15 °C 9500	D 5293



MirOil

FOUR SEASON LUBRICANT

API SG

Gasoline Engine Oil

- MirOil is a high quality passenger car motor oil designed for older turbocharged and naturally aspirated gasoline powered passenger cars and diesel powered light duty vehicles. It is blended using selected premium quality base oils and performance additives.
  This lubricant is recommended for use in gasoline powered passenger cars and diesel powered light duty vehicles. It may also be used in older vehicles where an API service category SF or commercial category CC-quality oil is recommended.

Advantages

- Effective rust inhibitors retard formation of rust in critical engine parts.
- Excellent engine cleanliness.
- Better thermo-oxidative stability minimizes deposits & sludge build-up.
- Better antiwear technology minimizes engine wear to reduce maintenance costs.
- Reliable lubrication even at higher load and operating temperatures.

MirOil MOTOR OIL

FOUR SEASON LUBRICANT

Specification	SAE Grade				ASTM Test Method
	15W-40	20W-50	40	50	
Viscosity @ 100 °C, cSt	14.5	19	14.5	19	D 445
Viscosity Index	130	120	120	120	D 2270
Flash Point, °C, Min	200	200	220	220	D 92
Pour Point, °C, Max	-24	-24	-9	-9	D 97
TBN, mg KOH/g, Min	4.5	4.5	4.5	4.5	D 2896
Density @ 15 °C, Kg/m^3	885	890	885	890	D 1298
CCS, cP, Max	-20 °C 7000	-15 °C 9500	---	---	D 5293

MirOil

FOUR SEASON LUBRICANT

API SF

Gasoline Engine Oil

- *MirOil is a high quality passenger car motor oil formulated by using selected premium quality base oils and effective additives. It is designed for older turbocharged and naturally aspirated gasoline powered passenger cars and diesel powered light duty vehicles and recommended for use in gasoline powered passenger cars and diesel powered light duty vehicles. It may also be used in older vehicles where an API service category SE or commercial category CC- quality oil.*

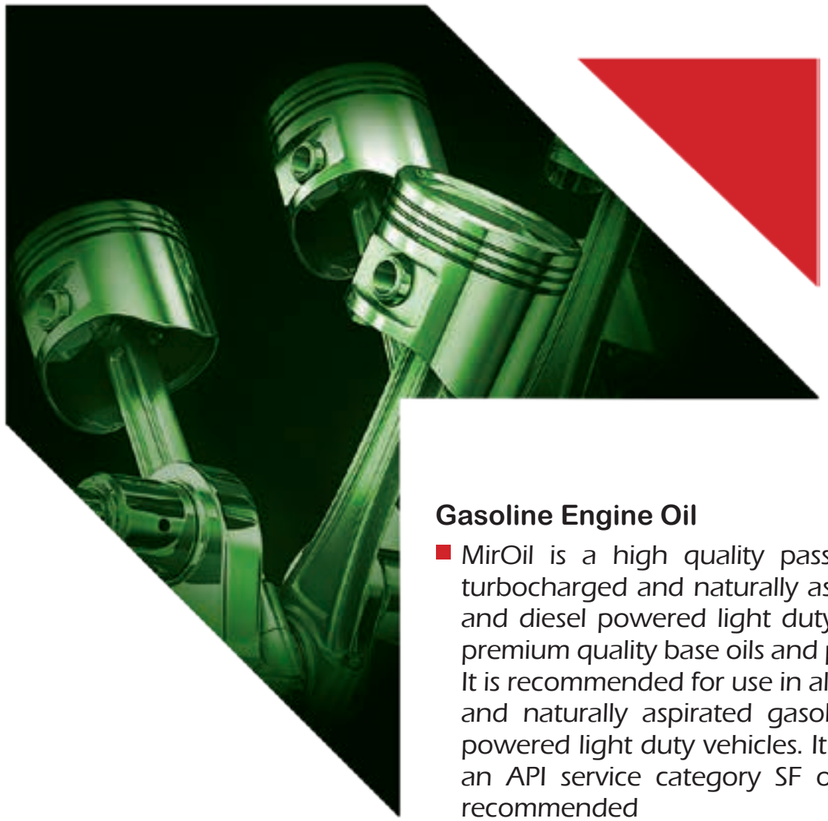
Advantages

- *Better thermo-oxidative stability minimizes deposits and sludge build-up*
- *Effective rust inhibitors retard formation of rust in critical engine parts*
- *Excellent engine cleanliness*
- *Reliable lubrication even at higher load and operating temperatures.*
- *Better antiwear technology minimizes engine wear to reduce maintenance costs*

MirOil MOTOR OIL

FOUR SEASON LUBRICANT

Specification	SAE Grade			ASTM Test Method
	20W-50	40	50	
Viscosity @ 100 °C, cSt	19	14.5	19	D 445
Viscosity Index	120	120	120	D 2270
Flash Point, °C, Min	200	220	220	D 92
Pour Point, °C, Max	-24	-9	-9	D 97
TBN, mg KOH/g, Min	4	4	4	D 2896
Density @ 15 °C, Kg/m³	890	905	905	D 1298



MirOil

FOUR SEASON LUBRICANT

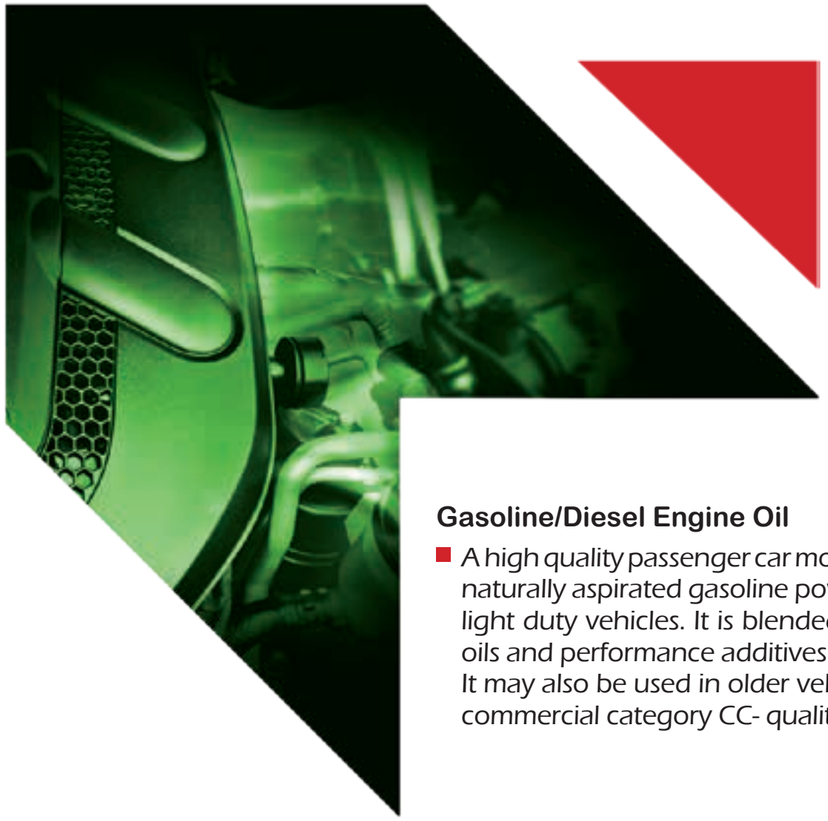
API SE

Gasoline Engine Oil

- MirOil is a high quality passenger car motor oil designed for non-turbocharged and naturally aspirated gasoline powered passenger cars and diesel powered light duty vehicles. It is blended by using selected premium quality base oils and performance additives.
  It is recommended for use in all modern high performance turbocharged and naturally aspirated gasoline powered passenger cars and diesel powered light duty vehicles. It may also be used in older vehicles where an API service category SF or commercial category CC- quality oil is recommended

Advantages

- Effective rust inhibitors retard formation of rust in critical engine parts
- Improved engine cleanliness
- Better thermo-oxidative stability minimizes deposits and sludge build-up
- Better antiwear technology minimizes engine wear to reduce maintenance costs
- Reliable lubrication even at higher load and operating temperatures.



MirOil
FOUR SEASON LUBRICANT

API SC/CC

Gasoline/Diesel Engine Oil

- A high quality passenger car motor oil designed for non-turbocharged and naturally aspirated gasoline powered passenger cars and diesel powered light duty vehicles. It is blended by using selected premium quality base oils and performance additives.
  It may also be used in older vehicles where an API service category SF or commercial category CC- quality oil is recommended

Advantages

- Effective rust inhibitors retard formation of rust in critical engine parts
- Improved engine cleanliness
- Better thermo-oxidative stability minimizes deposits and sludge build-up
- Better antiwear technology minimizes engine wear to reduce maintenance costs
- Reliable lubrication even at higher load and operating temperatures.

MirOil MOTOR OIL
FOUR SEASON LUBRICANT

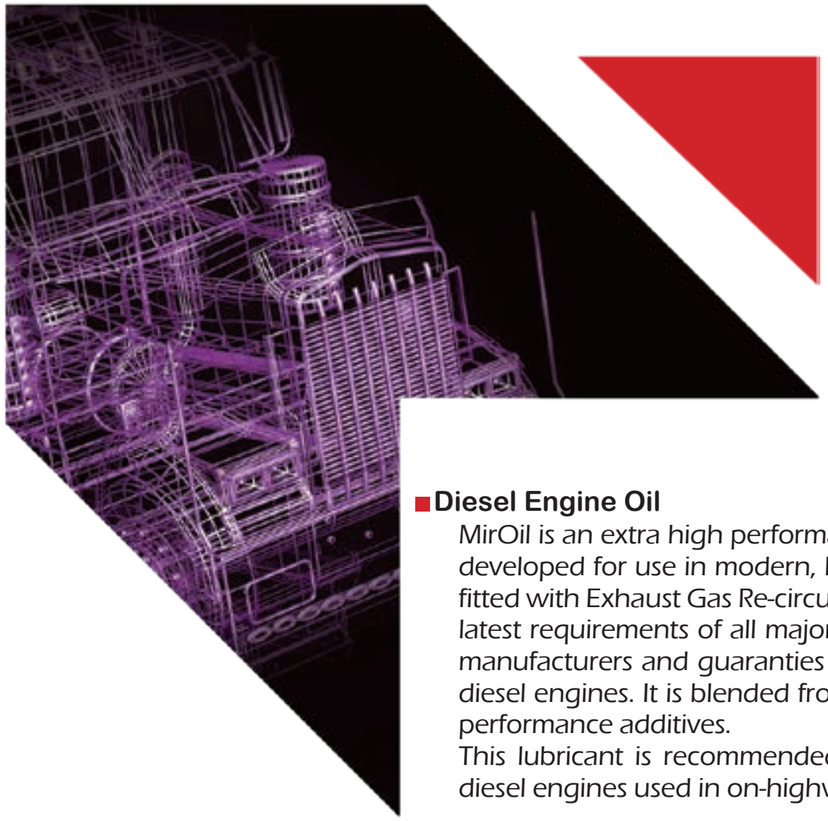
Specification	SAE Grade			ASTM Test Method
	20W-50	40	50	
Viscosity @ 100 °C, cSt	19	14.5	19	D 445
Viscosity Index	120	120	120	D 2270
Flash Point, °C, Min	200	220	220	D 92
Pour Point, °C, Max	-24	-9	-9	D 97
TBN, mg KOH/g, Min	4	4	4	D 2896
Density @ 15 °C, Kg/m³	890	905	905	D 1298

MirOil DIESEL ENGINE OIL

MirOil DIESEL ENGINE OIL

FOUR SEASON LUBRICANT

Specification	SAE Grade			ASTM Test Method
	10W-40	15W-40	20W-50	
Viscosity @ 100 °C, cSt	14.5	14.5	19	D 445
Viscosity Index	150	130	120	D 2270
Flash Point, °C, Min	200	200	200	D 92
Pour Point, °C, Max	-30	-24	-24	D 97
TBN, mg KOH/g, Min	10	10	10	D 2896
Density @ 15 °C, Kg/m³	860	880	885	D 1298
CCS, cP, Max	-25 °C 7000	-20 °C 7000	-15 °C 9500	D 5293



MirOil

FOUR SEASON LUBRICANT

API CI-4

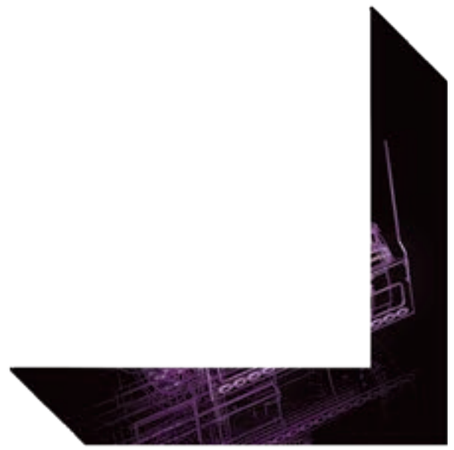
Diesel Engine Oil

MirOil is an extra high performance heavy-duty diesel engine oil specifically developed for use in modern, low emission diesel engines, including those fitted with Exhaust Gas Re-circulation, (EGR) systems. This product meets the latest requirements of all major European, American and Japanese engine manufacturers and guaranties exceptional protection and extended life to diesel engines. It is blended from selected base stocks and new generation performance additives.

This lubricant is recommended for turbocharged and naturally aspirated diesel engines used in on-highway applications.

Advantages

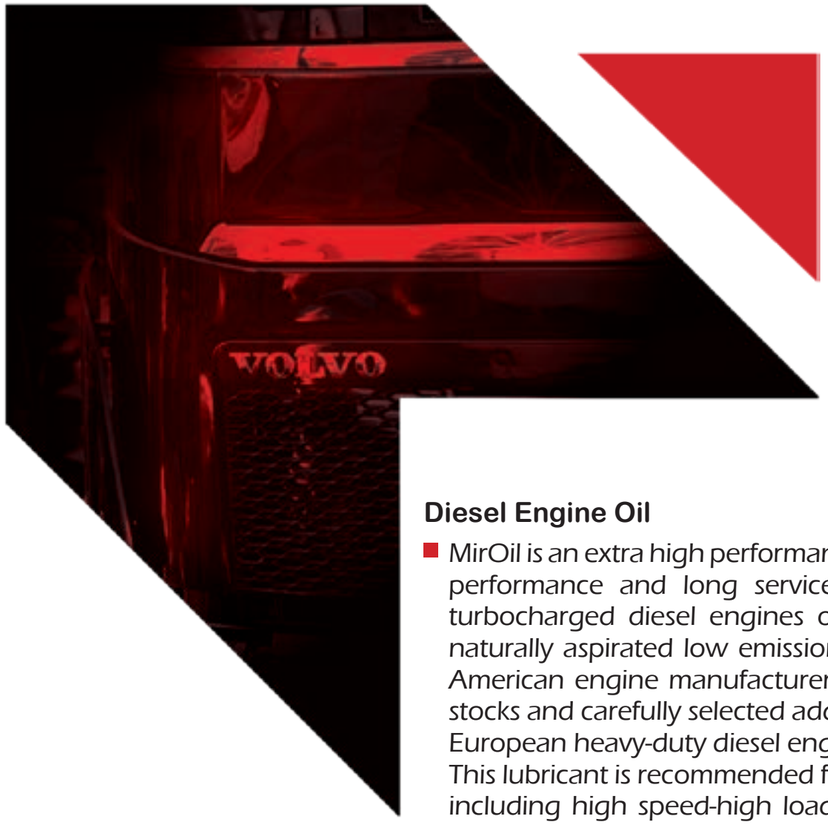
- *Excellent soot handling capability protects against soot induced viscosity increase and wear and corrosion.*
- *Excellent TBN retention helps in countering harmful effects of corrosive exhaust gases and extending oil life*
- *Outstanding thermo-oxidative stability reduces deposits and oil thickening*
- *Superior protection against corrosive wear helps in sustaining engine durability.*



MirOil DIESEL ENGINE OIL

FOUR SEASON LUBRICANT

Specification	SAE Grade			ASTM Test Method
	10W-40	15W-40	20W-50	
Viscosity @ 100 °C, cSt	14.5	14.5	19	D 445
Viscosity Index	150	130	120	D 2270
Flash Point, °C, Min	200	200	200	D 92
Pour Point, °C, Max	-30	-24	-24	D 97
TBN, mg KOH/g, Min	10	10	10	D 2896
Density @ 15 °C, Kg/m³	860	880	885	D 1298
CCS, cP, Max	-25 °C 7000	-20 °C 7000	-15 °C 9500	D 5293



MirOil

FOUR SEASON LUBRICANT

API CH-4

Diesel Engine Oil

- MirOil is an extra high performance diesel engine oil that provides superior performance and long service potential in high output, high-speed turbocharged diesel engines operating under severe conditions and naturally aspirated low emission diesel engines of major European and American engine manufacturers. It is blended from highly refined base stocks and carefully selected additives. It meets the requirements of major European heavy-duty diesel engine manufacturers.
  This lubricant is recommended for highway light and heavy duty trucking including high speed-high load service and short haul pick-up/delivery van heavy duty diesel engines used in mining, construction, agriculture and other off highway applications

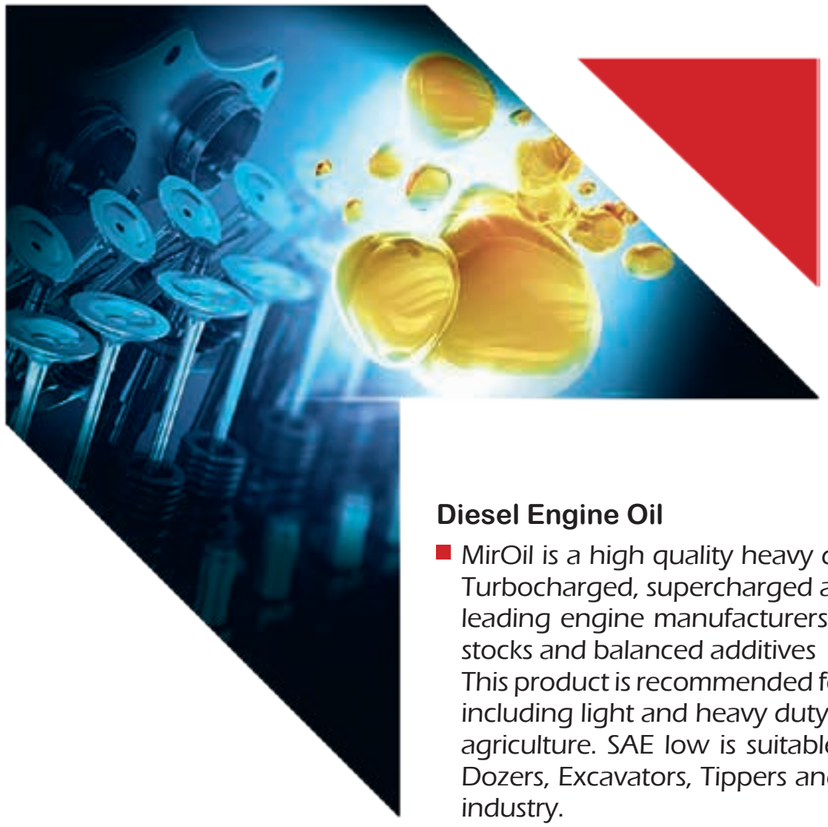
Advantages

- Exceptional antiwear properties protects critical engine components to extend engine life and reduce maintenance costs
- Excellent thermo-oxidative stability controls deposits and viscosity increase
- Advanced detergency enhances engine cleanliness to provide extended engine life.

MirOil DIESEL ENGINE OIL

FOUR SEASON LUBRICANT

Specification	SAE Grade			ASTM Test Method
	10W-40	15W-40	20W-50	
Viscosity @ 100 °C, cSt	14.5	14.5	19	D 445
Viscosity Index	130	130	120	D 2270
Flash Point, °C, Min	200	200	200	D 92
Pour Point, °C, Max	-30	-24	-24	D 97
TBN, mg KOH/g, Min	8	8	8	D 2896
Density @ 15 °C, Kg/m³	860	885	890	D 1298
CCS, cP, Max	-25 °C 7000	-20 °C 7000	-15 °C 9500	D 5293



MirOil

FOUR SEASON LUBRICANT

API CF-4

Diesel Engine Oil

- *MirOil is a high quality heavy duty diesel engine oil developed for use in Turbocharged, supercharged and naturally aspirated diesel engines of all leading engine manufacturers. It is formulated from highly refined base stocks and balanced additives*
  This product is recommended for use in wide range of on and off-highway including light and heavy duty applications such as mining, construction, agriculture. SAE low is suitable for use in various heavy duty Dumpers, Dozers, Excavators, Tippers and Cranes used in construction and mining industry.

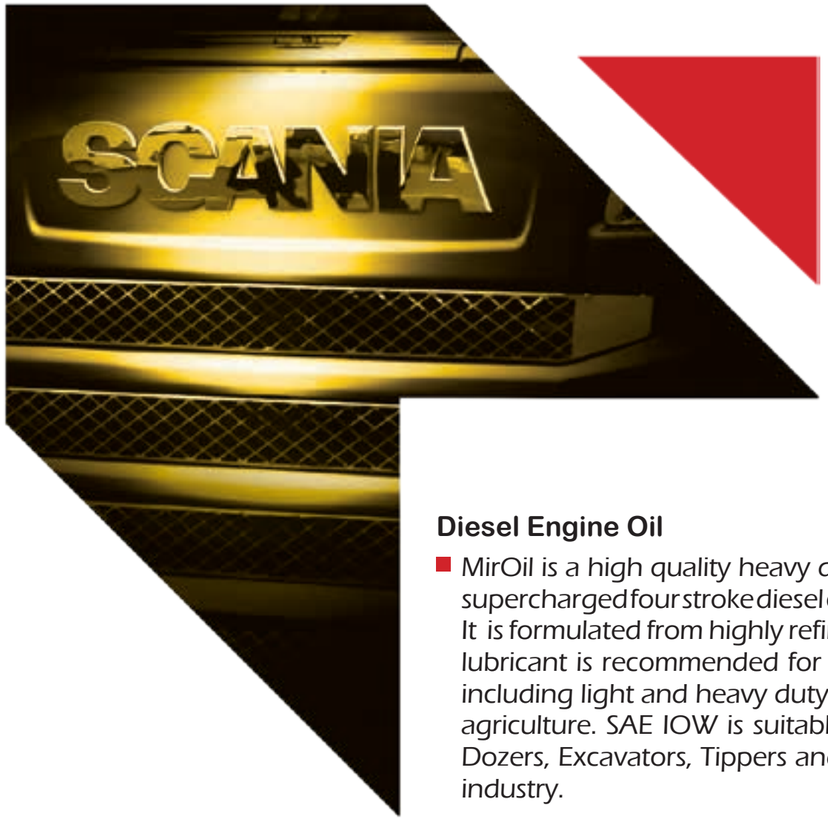
Advantages

- *Effective antiwear properties protects engine components against wear to offer extended engine life and reduced maintenance costs*
- *Improved detergency helps reduce deposits and keeps engines cleaner*
- *Good corrosion inhibition properties protects against corrosion and wear*
- *Better thermo-oxidative stability protects against sludge build-up, deposits and oil degradation*

MirOil DIESEL ENGINE OIL

FOUR SEASON LUBRICANT

Specification	SAE Grade			ASTM Test Method
	20W-50	50	40	
Viscosity @ 100 °C, cSt	19	19	14.5	D 445
Viscosity Index	120	120	120	D 2270
Flash Point, °C, Min	200	220	220	D 92
Pour Point, °C, Max	-24	-9	-9	D 97
TBN, mg KOH/g, Min	5	5	5	D 2896
Density @ 15 °C, Kg/m^3	890	895	890	D 1298
CCS, cP, Max	-15 °C 9500	---	---	D 5293



MirOil

FOUR SEASON LUBRICANT

API CD

Diesel Engine Oil

- MirOil is a high quality heavy duty diesel engine oil developed for use in supercharged four stroke diesel engines of all leading engine manufacturers. It is formulated from highly refined base stocks and selected additives. This lubricant is recommended for use in wide range of on and off-highway including light and heavy duty applications such as mining, construction, agriculture. SAE IOW is suitable for use in various heavy duty Dumpers, Dozers, Excavators, Tippers and Cranes used in construction and mining industry.

Advantages

- Effective antiwear properties protects engine components against wear to offer extended engine life and reduced maintenance costs
- Improved detergency helps reduce deposits and keeps engines cleaner
- Better thermo-oxidative stability protects against sludge build-up, deposits and oil degradation


MirOil MOTORCYCLE OIL

MirOil
FOUR SEASON LUBRICANT

API SL/JASO MA

4–Stroke Motorcycle Oil

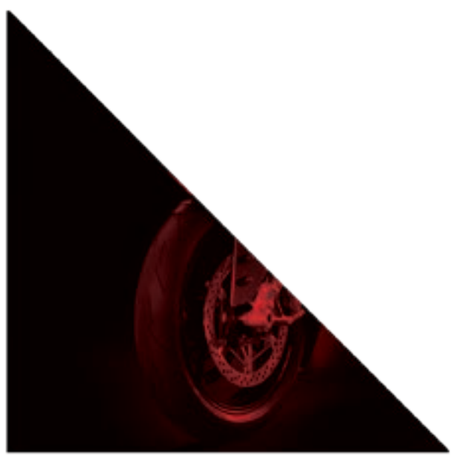
- MirOil is a semi synthetic, 4-stroke gasoline engine oil developed specifically to meet the special requirements of latest high performance air cooled 4-stroke motorcycles. It is blended from high quality synthetic base oils and performance additives to provide protection of engine, gear box and wet clutch against wear and recommended for use in modern 4-stroke motorcycles.

Advantages

- outstanding lubrication and easy starting even at operating temperatures
- Excellent thermo-oxidative stability minimizes deposits and sludge build-up
- Excellent rust and wear inhibitors for protection of engine
- Controlled frictional properties, smooth shift performance, prevention shudder

MirOil MOTORCYCLE OIL
FOUR SEASON LUBRICANT

Specification	SAE Grade 10W-40	ASTM Test Method
Viscosity @ 100 °C, cSt	14.5	D 445
Viscosity Index	152	D 2270
Flash Point, °C, Min	210	D 92
Pour Point, °C, Max	-33	D 97
TBN, mg KOH/g	7	D 2896
Density @ 15 °C, Kg/m³	874	D 1298



MirOil
FOUR SEASON LUBRICANT

API SC/JASO MA

4–Stroke Motorcycle Oil

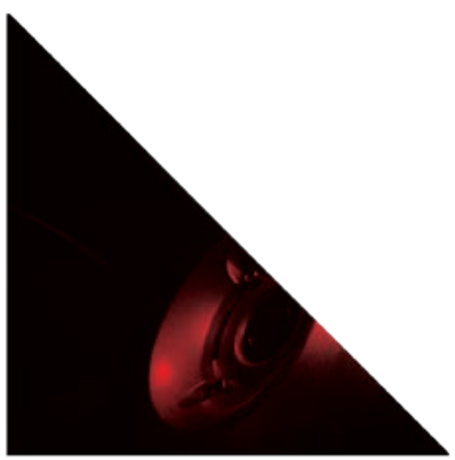
- MirOil is a high quality 4-stroke gasoline engine oil developed specifically to meet the special requirements of air cooled 4-stroke motorcycles. It is blended from highly refined base oils and effective additives to provide protection of engine's critical parts and wet clutch. This product is recommended for use in new motorcycle and older one.

Advantages

- Better thermo-oxidative stability minimizes deposits and sludge build-up
- Effective wear inhibitors for protection of engine
- Controlled frictional properties, smooth shift performance, prevention shudder
- Reliable lubrication and easy starting even at operating temperatures

MirOil MOTORCYCLE OIL
FOUR SEASON LUBRICANT

Specification	SAE Grade	ASTM Test Method
	20W-50	
Viscosity @ 100 °C, cSt	19	D 445
Viscosity Index	128	D 2270
Flash Point, °C, Min	210	D 92
Pour Point, °C, Max	-24	D 97
TBN, mg KOH/g, Min	7	D 2896
Density @ 15 °C, Kg/m^3	893	D 1298



MirOil OUTBOARD

OUTBOARD OIL

Specification	Typical Value	ASTM Test Method
Viscosity @ 100 °C, cSt	8	D 445
Viscosity Index	135	D 2270
Flash Point, °C, Min	90	D 92
Pour Point, °C, Max	-33	D 97
TBN, mg KOH/g, Min	6	D 2896
Density @ 15 °C, Kg/m³	868	D 1298

MirOil
OUTBOARD OIL

API TC/JASO FC

2–Stroke Motorcycle Oil

- MirOil is a high performance, ash-less, 2-cycle engine oil developed to meet the most critical requirements of modern water cooled outboard engines. It is designed for the harsh operating conditions of marine environment and exceeds the stringent performance requirements of the latest National Marine Manufacturers Association's specification and also meets the performance requirements including JASO FC and API TC.
  This product is recommended for use in the latest high output 2-Cycle water cooled outboard engines.

Advantages

- The latest additive technology helps in protecting the piston from scuffing ensuring cleaner engines
- The special ash-less detergents protect against piston ring sticking, spark plug fouling and pre-ignition
- Special rust and corrosion inhibitors guard even in marine salt water environment
- Ensures easy mixing and forms stable mixtures with gasoline even at low ambient temperatures

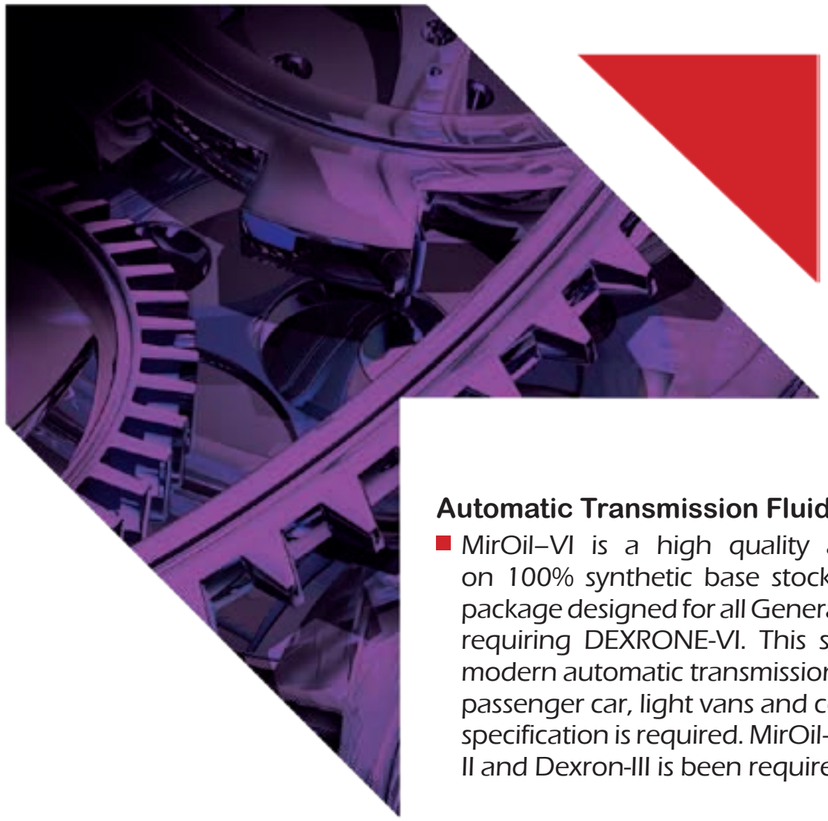
MirOil GEAR OIL

Different designs of gears and their operating and tribological parameters demands a carefully formulated lubricant

MirOil ATF DEXRON-VI

AUTOMATIC TRANSMISSION FLUID

Specification	Typical Value	ASTM Test Method
Viscosity @ 100 °C, cSt	6	D 445
Viscosity Index	153	D 2270
Flash Point, °C, Min	220	D 92
Pour Point, °C, Max	-51	D 97
Brookfield Viscosity @ -40 °C, cP	11500	D 2983
Density @ 15 °C, Kg/m³	841	D 1298



MirOil-VI

AUTOMATIC TRANSMISSION FLUID

ATF DEXRON-VI

Automatic Transmission Fluid

- MirOil–VI is a high quality automatic transmission fluid(ATF) based on 100% synthetic base stocks in combination with a unique additive package designed for all General Motors and Ford automatic transmissions requiring DEXRONE-VI. This superior fluid is recommended for use in modern automatic transmission, torque convertors and power-steering of passenger car, light vans and commercial vehicles where a GM Dexron VI specification is required. MirOil–VI is backwards compatible where Dexron II and Dexron-III is been required.

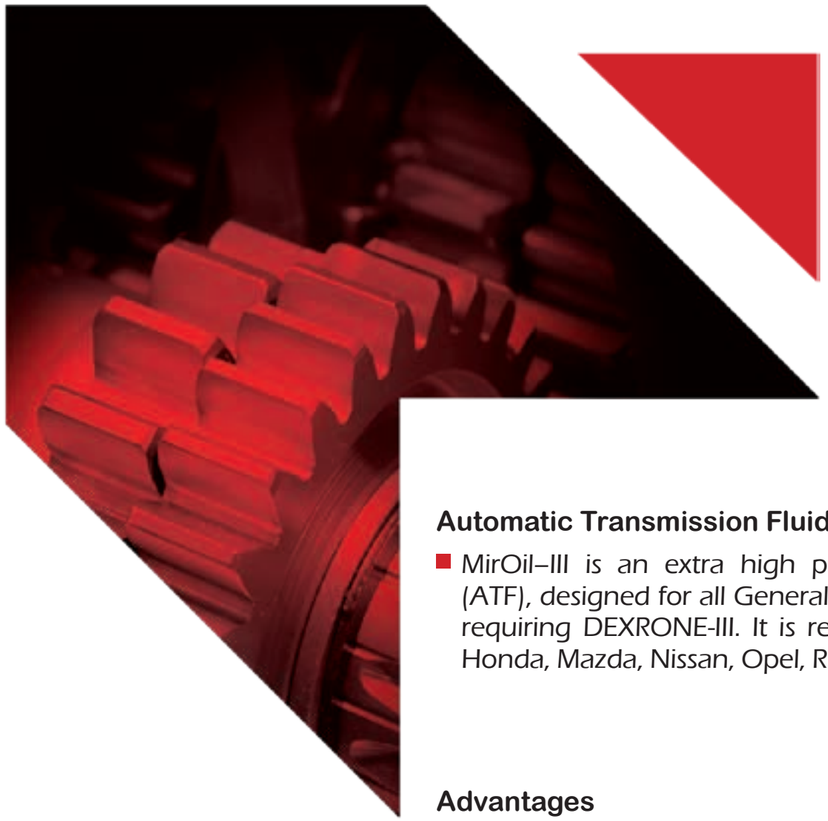
Advantages

- Excellent thermal and oxidation stability
- Special friction modifiers
- Very high viscosity Index, excellent performance at very low and high temperatures
- Excellent seal compatibility, longer seal life, reduction of oil leakage possibility
- Excellent protection against the forming corrosion, foam and wear

MirOil ATF DEXRON-III

AUTOMATIC TRANSMISSION FLUID

Specification	Typical Value	ASTM Test Method
Viscosity @ 100 °C, cSt	8	D 445
Viscosity Index	180	D 2270
Flash Point, °C, Min	190	D 92
Pour Point, °C, Max	-46	D 97
Brookfield Viscosity @ -40 °C, cP	17500	D 2983
Density @ 15 °C, Kg/m³	841	D 1298



MirOil-III

AUTOMATIC TRANSMISSION FLUID

ATF DEXRON-III

Automatic Transmission Fluid

- MirOil–III is an extra high performance automatic transmission fluid (ATF), designed for all General Motors and Ford automatic transmissions requiring DEXRONE-III. It is recommended for imported cars like Audi, Honda, Mazda, Nissan, Opel, Renault, Toyota and Volkswagen.

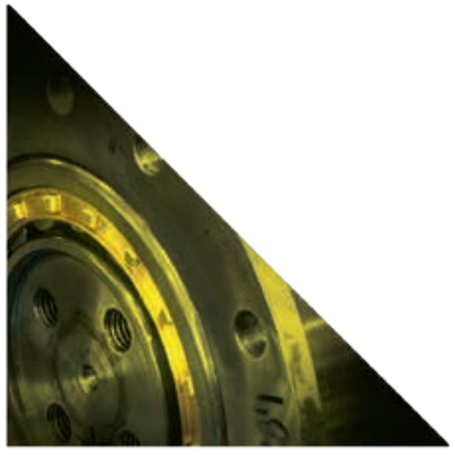
Advantages

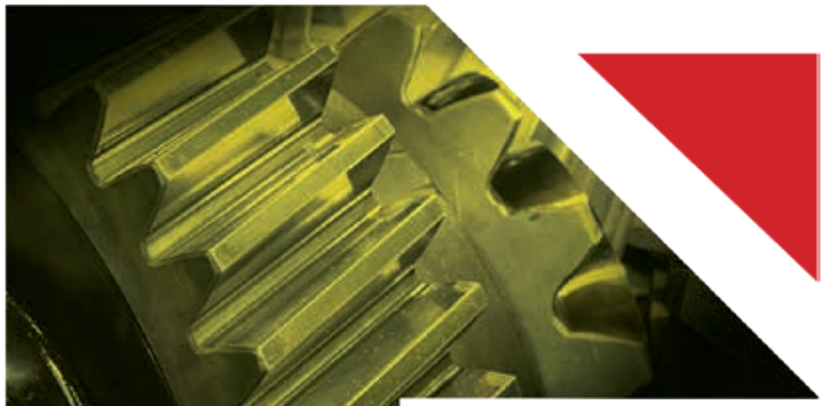
- Formulated from modern additive technology and specially selected base oils
- Superior thermo-oxidative stability , longer fluid life
- Controlled frictional properties, smooth shift performance, prevention shudder
- Adequate lubrication in high operating, easy pumping in the hydraulic circuits
- Excellent protection against rust, corrosion and wear.
- Excellent seal compatibility, longer seal life, reduction of oil leakage possibility

MirOil ATF DEXRON-II

AUTOMATIC TRANSMISSION FLUID

Specification	Typical Value	ASTM Test Method
Viscosity @ 100 °C, cSt	7.2	D 445
Viscosity Index	162	D 2270
Flash Point, °C, Min	172	D 92
Pour Point, °C, Max	-42	D 97
Brookfield Viscosity @ -40 °C, cP	40750	D 2983
Density @ 15 °C, Kg/m^3	861	D 1298





MirOil-II

AUTOMATIC TRANSMISSION FLUID

ATF DEXRON-II

Automatic Transmission Fluid

- *MirOil–II is an automatic transmission fluid(ATF) designed for automatic transmissions in older vehicles specifying use of DEXRON- II quality fluids. It is recommended for power steering units, certain manual transmissions and hydraulic.*

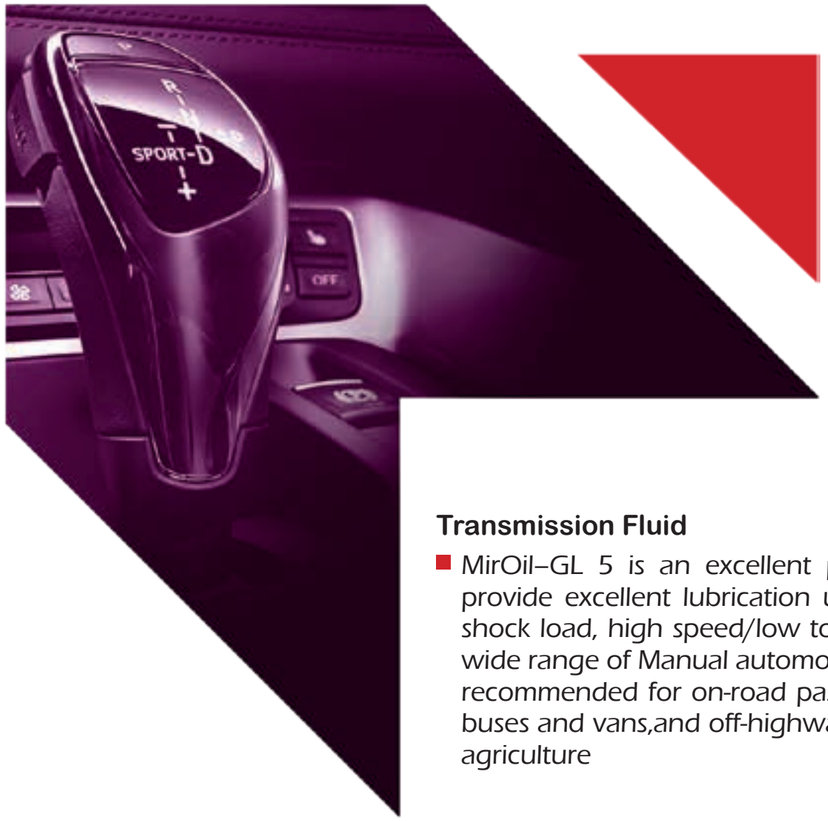
Advantages

- *Formulated from special additive technology and high quality base oils*
- *Good thermo-oxidative stability, longer fluid life*
- *Controlled frictional properties, smooth shifts in a variety of driving conditions*
- *Adequate lubrication in high operating, good cold start performance*
- *Better protection against rust, corrosion and wear.*
- *Excellent seal compatibility, longer seal life, reduction of oil leakage possibility*

MirOil API GL-5

TRANSMISSION FLUID

Specification	SAE Grade			ASTM Test Method
	75W-80	80W-90	85W-140	
Viscosity @ 100 °C, cSt	8.5	16	28	D 445
Viscosity Index	145	101	97	D 2270
Flash Point, °C, Min	170	200	210	D 92
Pour Point, °C, Max	-39	-27	-18	D 97
Density @ 15 °C, Kg/m³	830	894	901	D 1298



MirOil–GL 5

TRANSMISSION FLUID

API GL-5

Transmission Fluid

- MirOil–GL 5 is an excellent performance gear lubricant designed to provide excellent lubrication under severe conditions like high speed/ shock load, high speed/low torque and/or low speed, high torque in a wide range of Manual automotive transmissions, axles and final drive. It's recommended for on-road passenger cars, light and heavy duty trucks, buses and vans,and off-highway equipment in construction, mining and agriculture

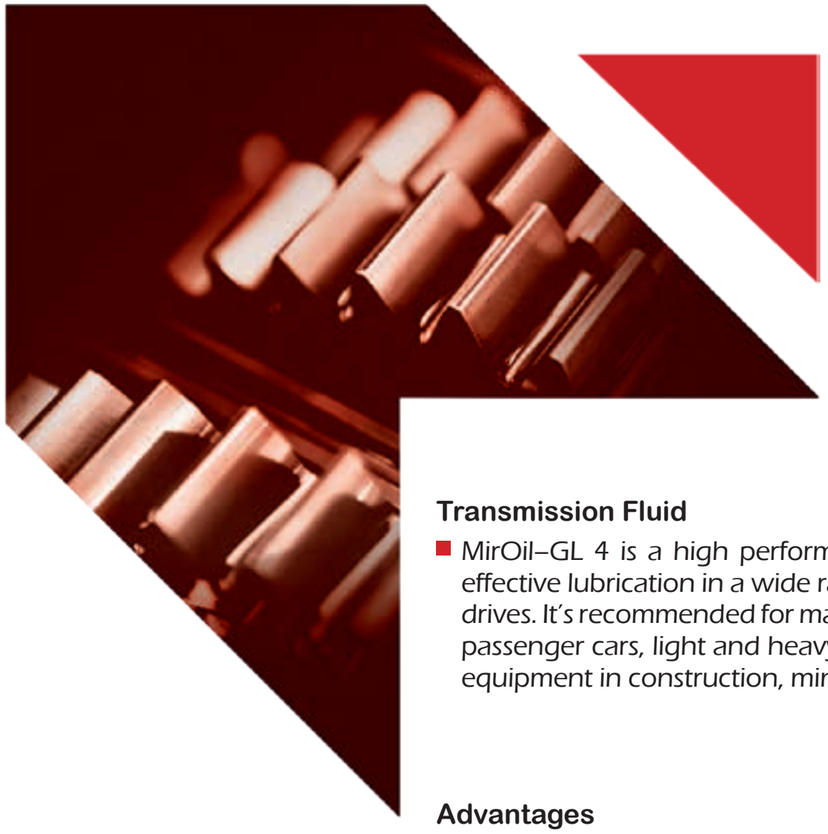
Advantages

- Formulated from high quality base stocks and balanced extreme pressure additives
- Good Extreme Pressure and Antiwear
- High oxidation stability facilitating longer gear and bearing life
- Effective rust and corrosion protection
- Good anti-foam properties ensure film strength for effective lubrication
- Excellent seal compatibility lead to minimize leakages

MirOil API GL-4

TRANSMISSION FLUID

Specification	SAE Grade			ASTM Test Method
	75W	85W-90	80W	
Viscosity @ 100 °C, cSt	4.2	16	7	D 445
Viscosity Index	100	90	95	D 2270
Flash Point, °C, Min	160	200	190	D 92
Pour Point, °C, Max	-39	-18	-27	D 97
Density @ 15 °C, Kg/m³	865	905	880	D 1298



MirOil–GL 4

TRANSMISSION FLUID

API GL-4

Transmission Fluid

- MirOil–GL 4 is a high performance gear lubricant designed to provide effective lubrication in a wide range of automotive transmissions and axle drives. It's recommended for manual transmissions and transaxles, on-road passenger cars, light and heavy duty trucks, buses and vans, off-highway equipment in construction, mining and agriculture

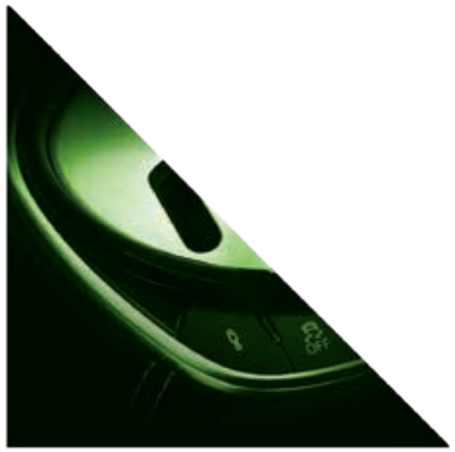
Advantages

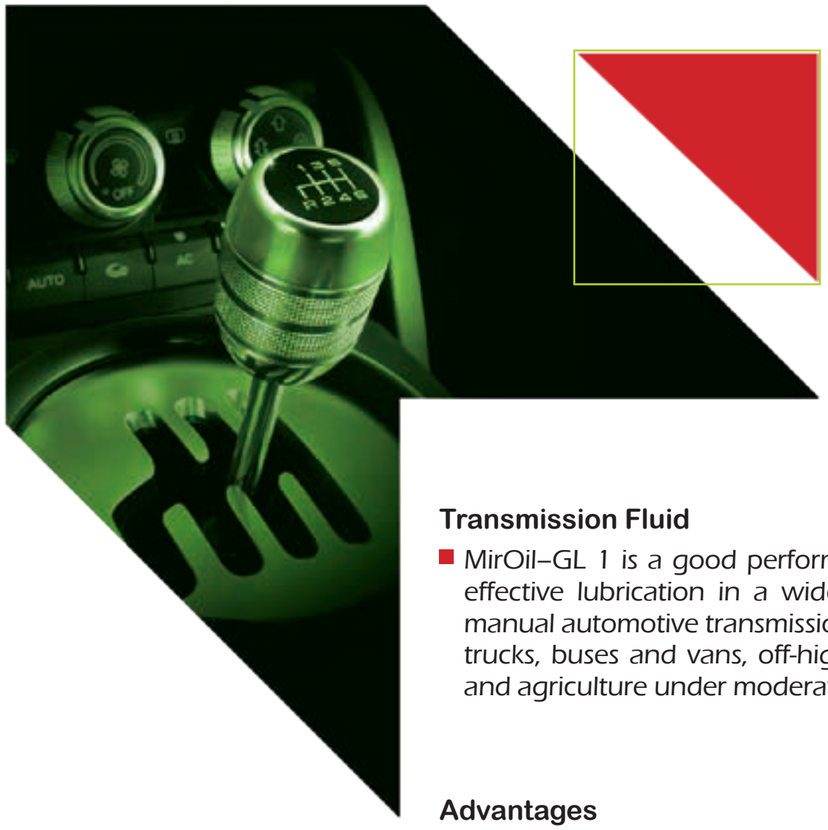
- Formulated from high quality base stocks and balanced extreme pressure additives
- Good extreme pressure and antiwear
- High oxidation stability facilitating longer gear and bearing life
- Effective rust and corrosion protection
- Good anti-foam properties ensure film strength for effective lubrication
- Excellent seal compatibility lead to minimize leakages

MirOil API GL-1

TRANSMISSION FLUID

Specification	SAE Grade			ASTM Test Method
	90	110	140	
Viscosity @ 100 °C, cSt	16	21	28	D 445
Viscosity Index	100	100	100	D 2270
Flash Point, °C, Min	200	206	210	D 92
Pour Point, °C, Max	-9	-9	-6	D 97
Density @ 15 °C, Kg/m³	885	890	890	D 1298





MirOil–GL 1

TRANSMISSION FLUID

API GL-1

Transmission Fluid

- MirOil–GL 1 is a good performance gear lubricant designed to provide effective lubrication in a wide range of spiral-bevel, worm gears and manual automotive transmissions and axle drive like light and heavy duty trucks, buses and vans, off-highway equipment in construction, mining and agriculture under moderate condition.

Advantages

- Formulated from high quality base stocks and additives
- High oxidation stability facilitating longer gear and bearing life
- Effective rust and corrosion protection
- Suitable anti-foam properties ensure film strength for effective lubrication
- Excellent seal compatibility lead to minimize leakages

MirOil
ANTI-FREEZE/BOIL COOLANT

MirOil COOLANT

ANTIFREEZE

Specification	Typical Value	ASTM Test Method
Density, kg/m^3	1.122	D 1122
Freezing Point, 50% Aqu, °C, Max	-36.5	D 1177
Boiling Point, 50% Aqu, °C, Min	108	D 1120
pH 50% Aqu	7.5 - 11	D 1287
Reserved Alkalinity Origin, ml	25	D 1121

MirOil-LL (LONG LINE)

ANTIFREEZE

Anti-Freeze/Boil Coolant

- MirOil-LL is a high performance, environment friendly long life radiator coolant and with 100% organic corrosion inhibitor additive. It is designed for all engine and cooling system components like heavy duty trucks and buses, light commercial vehicles, passenger cars and utility vehicles.

Advantages

- Long-term corrosion protection under all weather and operating conditions
- Excellent heat transfer properties
- Superior protection against corrosion
- Compatible With cooling system filters, rubber O-ring, water pump seals, hoses Or gasket

MirOil COOLANT

ANTIFREEZE

Specification	Typical Value	ASTM Test Method
Density, kg/m^3	1.125	D 1122
Freezing Point, 50% Aqu, °C, Max	-36.5	D 1177
Boiling Point, 50% Aqu, °C, Min	108	D 1120
pH 50% Aqu	7.5 - 11	D 1287
Reserved Alkalinity Origin, ml, Max	25	D 1121

MirOil COOLANT

ANTIFREEZE

Anti-Freeze/Boil Coolant

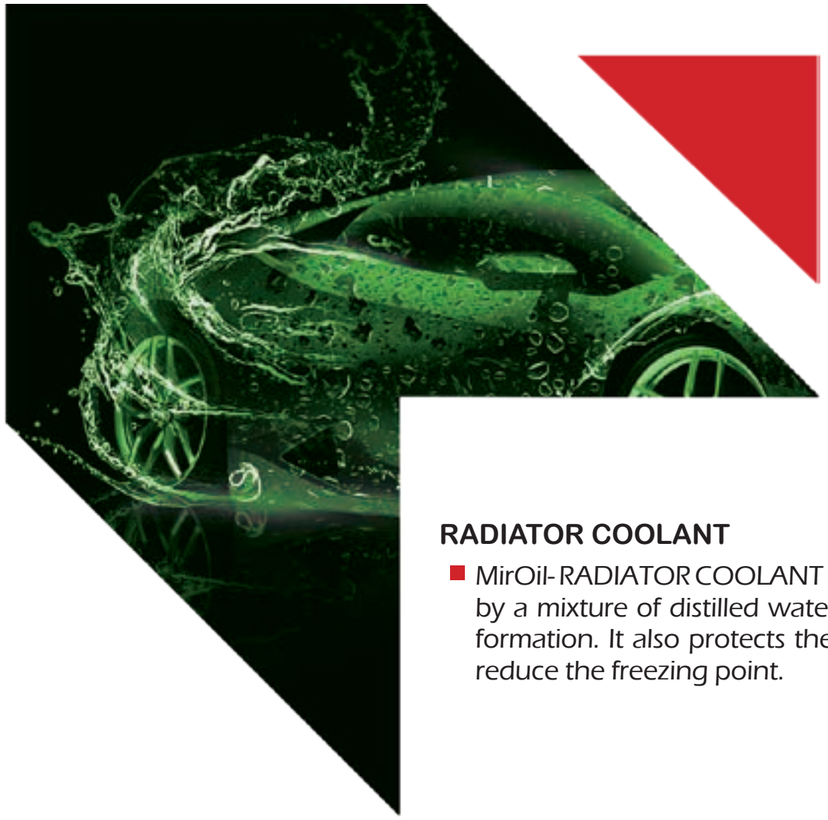
- MirOil COOLANT is a high performance, environment friendly radiator coolant and corrosion inhibitor additive. It is designed for all engine and cooling system components like heavy duty trucks and buses, light commercial vehicles, passenger cars and utility vehicles.

Advantages

- Outstanding performance under all weather and operating conditions
- Excellent heat transfer properties
- Excellent protection against corrosion
- Compatible With cooling system filters, rubber O-ring, water pump seals, hoses or gasket

MirOil RADIATOR COOLANT

SUPER LONG LIFE FLUID



RADIATOR COOLANT

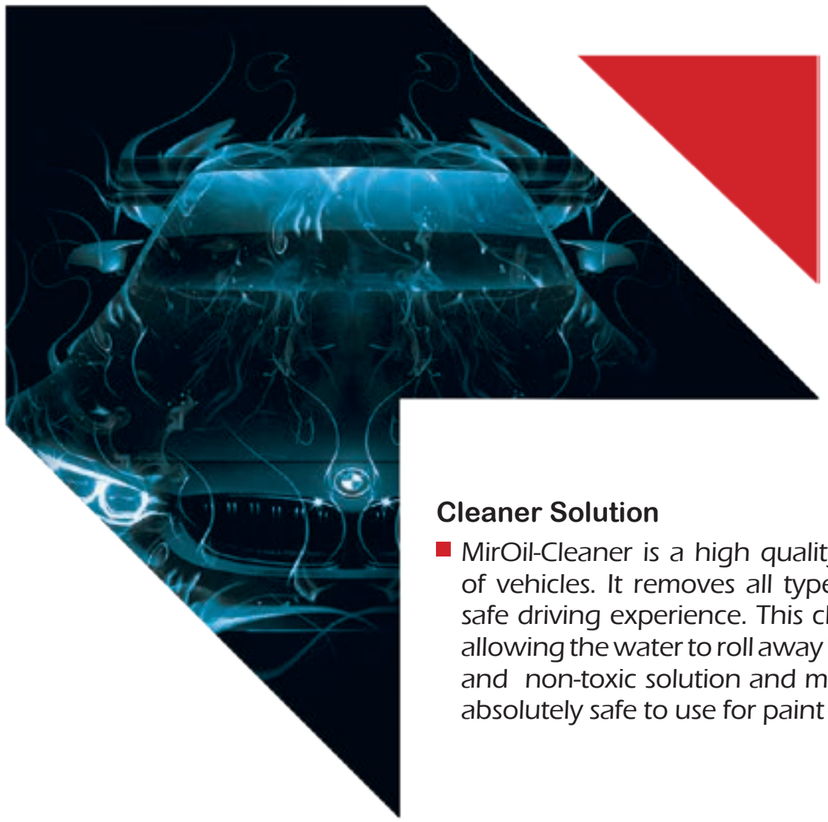
SUPER LONG LIFE FLUID

RADIATOR COOLANT

- MirOil- RADIATOR COOLANT is a long life radiator coolant fluid formulated by a mixture of distilled water and effective additives to prevent deposit formation. It also protects the critical metal from corrosion and rust and reduce the freezing point.

MirOil WINDSHIELD CLEANER

WINDSHIELD SOLUTION



MirOil WINDSHIELD CLEANER

CLEANER SOLUTION

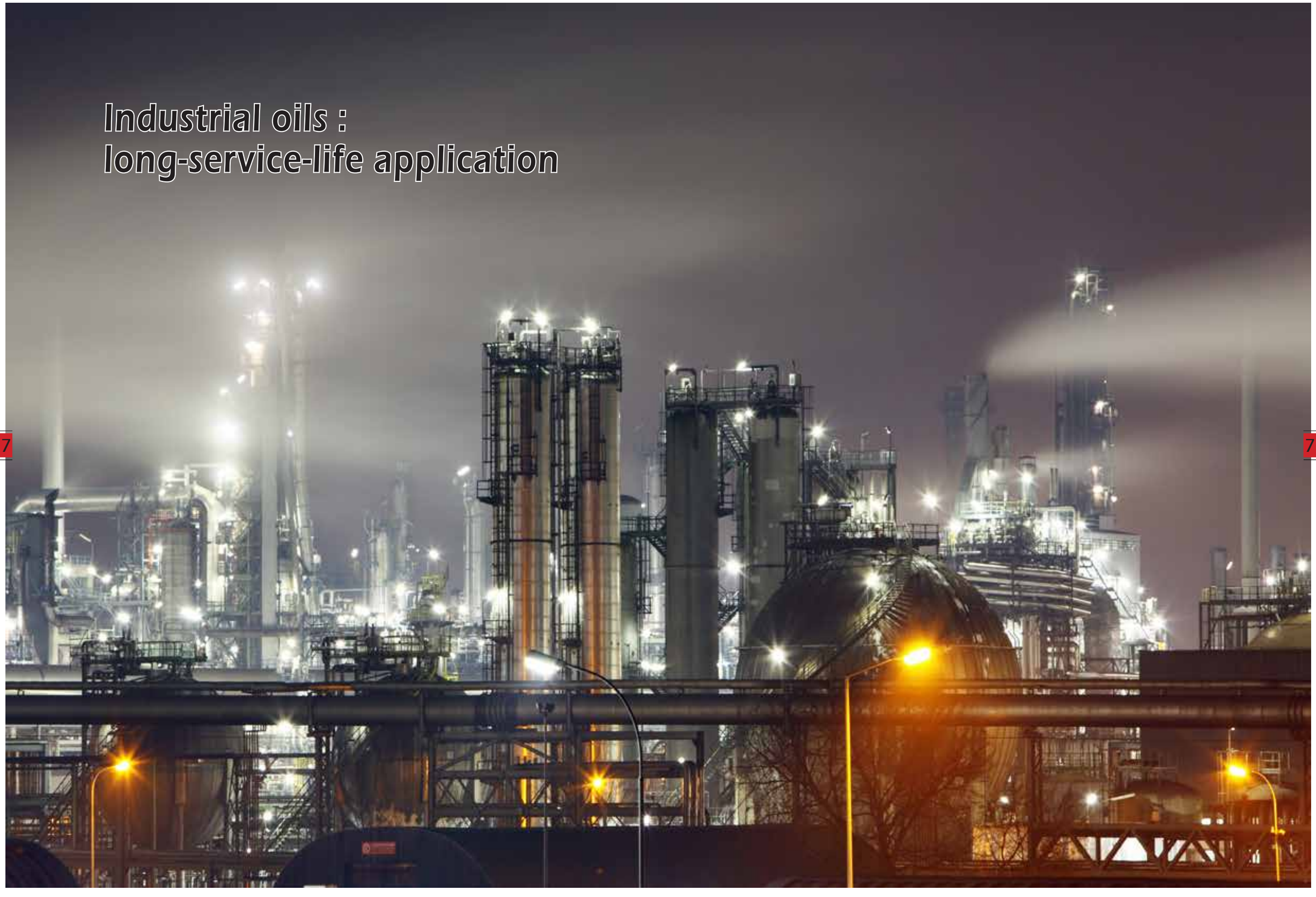
Cleaner Solution

- MirOil-Cleaner is a high quality windshield cleaner solution for all type of vehicles. It removes all types of debris and dirt effectively to lend a safe driving experience. This cleaner follows hydrophobic technology allowing the water to roll away in driving. It is a hydrophobic technology and non-toxic solution and made with biodegradable formula which is absolutely safe to use for paint and rubber.

Advantages

- Streak-free shine to any surface
- Including of Anti-Freezing agent, Applicable in all seasons
- Without any adverse effect on painted surfaces, pipes, hoses, seals and wipers
- Prevention of fog and steam forming

Industrial oils : long-service-life application



MirOil-HL

MirOil HYDRAULIC FLUID

Hydraulic Fluid

- MirOil–HL is a premium quality multipurpose lubricating oil intended for use in hydraulic systems in industrial and mobile service, compressors, turbines, circulating systems and spur, helical, bevel and worm gearboxes where R and O type of oils are required. This oil is blended from high quality base oils and a proven additive system.This product exceed the performance requirements of DIN 51524 Part1 - HL

Advantages

- Superior thermo-oxidative stability leading to longer service life
- Good water separation
- Special rust and corrosion inhibitors protect critical components even in severe operating conditions
- Effective foam control and rapid air release properties ensure trouble-free operations
- No effect on cupper alloys and reduction of their catalytic property

Specification		SAE Grade										ASTM Test Method
		15	22	32	46	68	100	150	220	320	460	
Viscosity @ 40 °C, cSt		15	22	32	46	68	100	150	220	320	460	D 445
Viscosity Index		97	98	100	100	99	97	96	96	95	95	D 2270
Flash Point, °C, Min		164	186	202	210	218	230	246	256	266	280	D 92
Pour Point, °C, Max		-24	-24	-21	-18	-15	-12	-9	-6	-6	-3	D 97
Density @ 15 °C, Kg/m^3		858	865	872	874	881	886	890	894	898	902	D 1298
Rust Test		Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	D 665A/B
Emulsion Test 30 min Max	@ 54 °C	Pass	Pass	Pass	Pass	Pass	-	-	-	-	-	D 1401
	@ 82 °C	-	-	-	-	-	Pass	Pass	Pass	Pass	Pass	
Foam Test		Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	D 892
Turbine oil stability Test, hrs, Min		1000		1500				1000				D 943

MirOil–HH

MirOil HYDRAULIC FLUID

Hydraulic Fluid

- MirOil–HH is a premium quality multipurpose lubricating oils intended for use in hydraulic systems in industrial and mobile service, compressors, turbines, circulating systems and spur, helical, bevel and worm gearboxes where R&O type of oils are required. This oil is blended from high quality base oils and a proven additive system and exceed the performance requirements of DIN 51524 Part 1 -HH.

Advantages

- Good water separation
- Special rust and corrosion inhibitors protect critical components
- Effective foam control and rapid air release properties ensure trouble-free
- operations
- No effect on cupper alloys and reduction of their catalytic property

Specification	SAE Grade				ASTM Test Method
	22	32	46	68	
Viscosity @ 40 °C, cSt	22	32	46	68	D 445
Viscosity Index	100	95	95	95	D 2270
Flash Point, °C, Min	165	175	185	195	D 92
Density @ 15 °C, Kg/m^3	865	870	875	880	D 1298
Demolsibility	Pass	Pass	Pass	Pass	D 1401
Copper Corrosion @ 100 °C, Max	1a	1a	1a	1a	D 130

MirOil AVIATION TURBINE OIL

Aviation Turbine Oil

- MirOil is a high quality aviation turbine oil formulated from high performance synthetic hindered ester base oil and effective ash-less additives.
  This product is ideal for the wide temperature ranges encountered between cold outside air and hot turbine systems and recommended for lubrication of aircraft-type gas turbine engines used in industrial or marine applications. It meets the specifications of MIL-PRF-23699 Grade TS, NATO Code Number 0-156 and Detence Standard 91-101.

Advantages

- Excellent oxidative and thermal stability to keep viscosity and acid number leading to lowers oil consumption
- Provide excellent load carrying to sustain bearing and gear required operating lives.
- Excellent resistance to foaming, wear and corrosion.
- Excellent lubricity, Anti-wear and Extreme Pressure properties
- Good biodegradability
- Operate in low and high temperature environments.

Specification	Typical Value	ASTM Test Method
Viscosity, @ 40 °C, cSt	25	D 445
Viscosity, @ 100 °C, cSt	4.9	D 445
Viscosity, @ -40 °C, cP	7760	D 445
Foam Characteristics	Pass	D 892
Total Acid Number, mg KOH/g	0.05	D 664
Pour Point, °C, Max	-63	D 97
Flash Point, °C, Min	250	D 92
Evaporation Loss, 6.5 hrs @ 204 °C	3.0	D 972

MirOil
TURBINE EXTREME PRESSURE OIL

Turbine Extreme Pressure Oil

- MirOil–EP is a supreme performance turbine oils formulated with high quality severely hydro-processed base oils and a proprietary ash-less additive package containing anti-oxidants, FZG booster, corrosion inhibitors.
  These products are specially designed for use in geared and non- geared steam turbines, gas turbines and combined cycle gas turbines(CCGT), large heavy-duty industrial gas turbines, power generation and industrial steam turbines, power generation gas turbines and turbo compressors. These lubricants are available in in four ISO viscosity grades 32, 46, 68 and 100 and can meet requirements of BS 489 , GEK 46506D , DIN 51515(part 1 & part 2) and ASTM D 4303 , Type 1(Non-EP) and Type 2(EP)

Advantages

- Superior anti-wear property and load carrying capability provide excellent protection for geared turbines
- Outstanding thermal and oxidation stability prevents sludge formation
- Excellent water separation capability leads to easy removal of excess water
- Excellent rust and corrosion inhibitors provide long term protection to critical system components
- Good air release properties and foam control avoid erratic operation and pump
- cavitation

Specification		ISO Viscosity Grade				Test Method
		32	46	68	100	
Viscosity @ 40 °C, cSt		32	46	68	100	ASTM D 445
Viscosity Index		100	100	100	100	ASTM D 2270
Flash Point, °C		212	220	236	244	ASTM D 92
Pour Point, °C		-30	-30	-27	-24	ASTM D 97
Density @ 15 °C, Kg/m^3		852	855	858	859	ASTM D 1298
Rust Test		Pass	Pass	Pass	Pass	ASTM D 665 A/B
Copper Corrosion		1a	1a	1a	1a	ASTM D 130
Water Separability	@ 54 °C	Pass	Pass	Pass	Pass	ASTM D 1401
	@ 82 °C				Pass	
Foam Test, Foam After 10 Minutes Of Settling For All Sequences.		Nil	Nil	Nil	Nil	ASTM D 892
Air Release, Minutes		2	3	4	4	ASTM D 3427
FZG A/8.3/90, Stage, Min		8	8	8	8	DIN 51354, Part II
Turbine Oil Stability Test, Min		10,000	10,000	10,000	10,000	ASTM D 943
RBOT, Minutes, Min		1,000	1,000	1,000	1,000	ASTM D 2272

Turbine Oil

- MirOil is a premium quality turbine oil especially designed for lubrication requirements of steam turbines in power industry. This oil is formulated with high quality severely hydrocracked base oils and an effective ashless additive package.
  This product is suitable for use in Power generation steam turbines, Industrial steam turbines, water turbines, non-geared gas turbines and Turbo compressors.
  This lubricant is available in three ISO viscosity grades 32, 46 and 68 and exceed performance requirements of specifications of major turbine manufacturers. These lubricants can meet requirements of BS 489, GEK 46506D, DIN 51515(part 1) and ASTM D 4303, Type 1 (Non-EP).

Advantages

- Outstanding thermal and oxidation stability prevents sludge formation
- Excellent water separation capability leads to easy removal of excess water from the lubrication system
- Effective rust and corrosion inhibitors provide long term protection to critical system components
- Good air release properties and foam control avoid erratic operation and pump cavitation

MirOil TURBINE OIL

Specification	ISO Viscosity Grade			ASTM Test Method
	32	46	68	
Viscosity, @ 40 °C, cSt	32	46	68	D 445
Viscosity Index	100	100	100	D 2270
Flash Point, °C	212	218	226	D 92
Pour Point, °C	-30	-30	-27	D 97
Density @ 15 °C, Kg/m^3	852	855	858	D 1298
Rust Test	Pass	Pass	Pass	D 665 A/B
Copper Corrosion	1a	1a	1a	D 130
Acid Number, mg KOH/g	0.07	0.07	0.07	D 974
Water Separability, Minutes To 3 ml Emulsion @ 54 °C	Pass	Pass	Pass	D1401
Foam Test, Foam After 10 Minutes Of Settling For All Sequences.	Nil	Nil	Nil	D 982
Air Release, Minutes	2	3	4	D 3427
Turbine Oil Stability Test, hrs, Min	10,000	10,000	10,000	D 945
RBOT, Minutes, Min	1,000	1,000	1,000	D 2272

MirOil-NH_3

MirOil Refrigeration Compressor Oil

Refrigeration Compressor Oil

- MirOil-NH_3 Refrigeration Compressor oil(for AMMONIA) is high performance fully synthetic refrigeration compressor oil formulated by PloyAlphaOlefin(PAO) base oil specially designed to meet the stringent requirements of major refrigeration compressor Manufacturers. This oil exceed the performance requirements of DIN 51503 KAA, and is suitable for Ammonia (R-717, NH3) refrigeration systems where evaporator temperatures are greater than -45˚C, Manufacturing industries that require very low temperature control such as pharmaceuticals and Large commercial operation such as cold stores, marine systems and food processing plants.

Advantages

- Excellent compatibility with Buna-N rings, which do not shrink when in contact with the oil.
- Lower solubility in Ammonia refrigerant, better lubricating and wear reducing.
- Superior thermal and oxidation stability reducing maintenance costs.
- Completely wax free, excellent operation at low evaporator temperatures.

Specification	ISO Viscosity Grade				ASTM Test Method
	32	46	68	100	
Viscosity @ 40 °C, cSt	32	46	68	100	D 445
Viscosity Index	138	139	137	140	D 2270
Flash Point, °C, Min	246	260	266	270	D 92
Pour Point, °C, Max	-57	-48	-48	-45	D 97
Density @ 15 °C, Kg/m^3	827	833	835	850	D 1298
Conradson Carbon Residue(CCR), m%, Max	0.01	0.01	0.01	0.01	D 189
Rust Test	Pass	Pass	Pass	Pass	D 665 A/B
Copper Corrosion, 1hr @ 100 °C,	1a	1a	1a	1a	D 130
Total Acid Number, mg KOH/g	0.01	0.01	0.01	0.01	D 974

MirOil–CFC

MirOil Refrigeration Compressor Oil

Refrigeration Compressor Oil

- MirOil–CFC Refrigeration Compressor is a high performance fully synthetic refrigeration compressor oil formulated with polyol Ester base.
  This product specially designed to meet the stringent requirements of most modern refrigeration and air conditioning systems that is filled with the new ozone friendly refrigerant and exceeds the requirements of DIN 51503 KD and ISO 6743-32003 L-DRD, L-DRE, L-DRF and L-DRG. It is suitable for use in Mobile air conditioning, domestic refrigeration, residential and commercial heat pump, commercial refrigeration including transport refrigeration, Industrial refrigeration and also recommended for Marine refrigeration applications, line food freezing and cold storage plants.

Advantages

- Excellent wear and rust protection results in reduced maintenance costs and longer equipment life
- Completely wax free and lower pour point prevents blockage and ensures smooth operation.
- Readily biodegradable and can be disposed off through conventional methods
- Compatible with elastomers commonly used in the refrigeration system
  compatible with Carbon dioxide, HFC, CFC/HCFC and HC type refrigeration gases
- Excellent thermo-oxidative stability

Specification	ISO Viscosity Grade						ASTM Test Method
	22	32	68	100	150	220	
Viscosity @ 40 °C, cSt	22	32	68	100	150	220	D 445
Specific Gravity @ 15 °C, Kg/m^3	941	997	968	968	967	964	D 1298
Viscosity Index	140	135	130	120	117	112	D 2272
Flash Point, °C, Min	260	250	256	271	261	254	D 92
Pour Point, °C, Max	-48	-45	-42	-36	-33	-27	D 97
Total Acid Number, mg KOH/g	0.05	0.05	0.05	0.05	0.05	0.05	D 664

MirOil
LOCOMOTIVE OILS

Railroad Lubricant

MirOil series are high performance, zinc-free and chlorine-free locomotive oils specially designed to provide excellent engine cleanliness and oil filter life in the modern railroad diesel locomotive engines being employed in severe service.
These oils exceed the performance requirements of Locomotive Maintenance Officers Association (LMOA) Generation 5 and API CF/CF-2, and are available in three viscosity grades; SAE 15W-40, SAE 20W-40, SAE 40.
These products are recommended for use in Railroad diesel locomotive engines, Medium speed two-cycle and four-cycle railroad engines, Marine and stationary engines for power generation or off-shore drilling requiring zinc-free oils

Advantages

- Zinc-free formulation protects silver bearings against corrosion
- Non-chlorinated additive package helps in reducing used oil disposal costs
- Exceptional detergency-dispersancy provides excellent engine Cleanliness
- High thermo-oxidative stability protects against sludge formation
- SAE 20W-40 helps provide reduced oil consumption, fuel economy, longer oil drain intervals and effective lubrication at lower temperatures.

Specification	SAE Grade			ASTM Test Method
	40	20W-40	15W-40	
Viscosity @ 100 °C, cSt	15.0	15.5	15	D 445
Viscosity Index	100	115	100	D 2270
Flash Point, °C, Min	240	220	220	D 92
Pour Point, °C, Max	-18	-24	-18	D 97
TBN, mg KOH/g, Min	17	17	17	D 2896
Density @ 15 °C, Kg/m^3	903	895	903	D 1298
Sulphated Ash, %wt	1.96	1.96	1.96	D 874
Zinc, ppm, Max	10	10	10	D 5158

we also can produce your required specification

Transformer Oil

- MirOil Trans Class II is a premium uninhibited mineral Transformer (insulating) oil made from a severely hydrotreated wax-free naphthenic oil which is good as a dielectric and coolant. It has very good low temperature fluidity and chemical stability. This high performance oil specially designed for use in transformers, switchgears, circuit breakers, capacitors, automotive ignition coils and other electrical equipment.

Advantages

- Excellent heat transfer
- Excellent thermal and oxidation stability, prevents sludge formation,
- Minimizing of oil degradation, extended service life
- High dielectric strength ensures excellent insulation and quenching of electric arc
- Effective long term protection of critical system components from rust and corrosion

MirOil-TRANS CLASS II

Specification	Typical Value	Test Method
Viscosity @ 40 °C, cSt, Max	11	ISO 3104
Viscosity @ -30 °C, cSt	1045	ISO 3104
Flash Point, °C, Min	130	ISO 2719
Pour Point, °C, Max	-45	ISO 3106
Density, @ 20 °C kg/m^3	881	ISO 12185
Breakdown Voltage, KV Before Treatment	59	IEC 60156
Breakdown Voltage, KV After Treatment	84	IEC 60156
Acid Number, mg KOH/g, Max	0.01	IEC 62021-1
Interfacisal Tension, mN/m	50	D 971
Corrosive Sulfur	Noncorrosive	IEC 62535
Sulfur, wt%	0.005	ISO 14596
Antioxidant Additive, wt %, Min	0.3	IEC 60666
Water Content, mg/kg	10	IEC 60814
Oxidation Stability @ 120 °C, 5000hrs		IEC 61125, C
Total Acidity, mg KOH/g	0.04	
Sludge, %	0.02	
DDF @ 90 °C	0.005	

Transformer Oil

- MirOil Trans Class I is high performance electrical insulating oil specially designed for use in transformers, switchgears and other electrical equipment. This oil is formulated with high quality severely hydro-processed naphthenic or paraffinic base oils.

Advantages

- Excellent thermal and oxidation stability prevents sludge formation
- High dielectric strength ensures excellent insulation and quenching of electric arc
- Effective long term protection from rust and corrosion to critical system components
- Heat transfer characteristics with extended service life

MirOil-TRANS CLASS I

Specification	Typical Value	Test Method
Appearance	Clear, Free From Sediment	
Viscosity @ 40 °C, cSt	11 - 16.5	ISO 3104
Flash Point, °C, Min	140	ISO 2719
Pour Point, °C, Max	-30	ISO 3106
Density, @ 20 °C kg/m^3	855	ISO 12185
Neutralization Value, mg KOH/g, Max	0.03	IEC 62021-1
Corrosive Sulfur	Not Corrosive	IEC 62535
Water Content, ppm	30	IEC 60814
Antioxidant Additive, wt%, Max	0.08	IEC 60666
Oxidation Stability @ 110 °C, 164 hrs		IEC 61125
Total Acidity, mg KOH/g	1.2	
Sludge% , by mass	0.8	
DDF, @ 90 °C	0.005	

MirOil METALWORKING OIL

Metalworking Oil

- MirOil is an emulsion fluid recommended as a coolant for types of metalworking operations. This high quality soluble oil is usually mixed with specific amount of water. Always this oil is added to water and during that, mixture is stirred.

Advantages

- Excellent anti-rust, anti-foam and anti-corrosion property
- Effective heat removal from metalworking operation
- Formation of stable emulsion
- Non-staining charactristics
- Prevention of chip welding onto the tool

Specification	Typical Value	Test Method
Appearace	Clear	
Density @ 15 °C, Kg/m³	950 ± 50	D 1298
Viscosity @ 40 °C, cSt	95 ± 5	AD 445

MirOil
SHOCK ABSORBER OIL

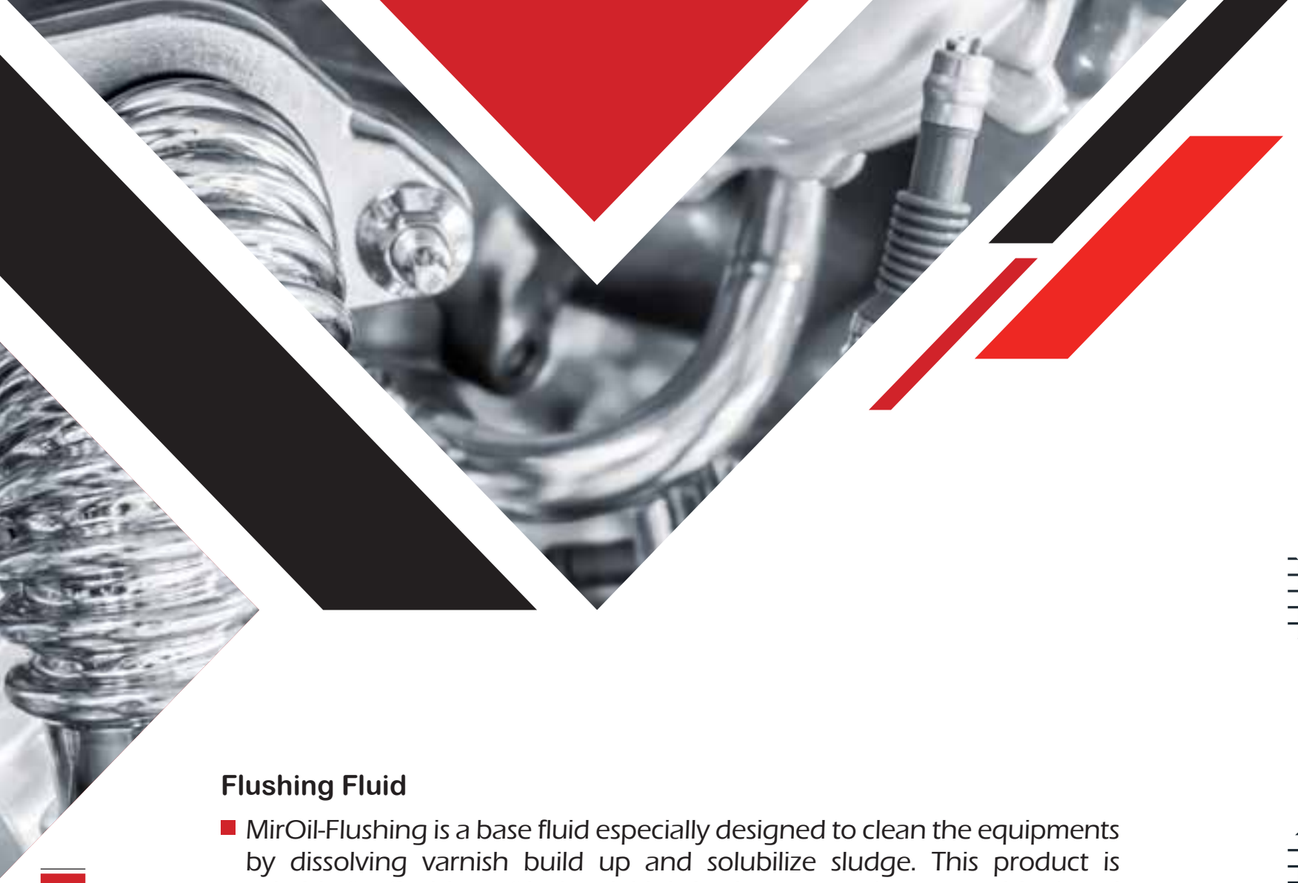
Shock Absorber Oil

- MirOil is a semi-synthetic high performance lubricating oil designed for Shock Absorbers in automotive cars, motorcycles and all types of vehicles. This high quality product is manufactured by mixture of synthetic and mineral base oil and special additives and is suitable in whole year.

Advantages

- Excellent thermal and oxidation stability, extended Shock Absorber's life
- Effective resistance against rust and corrosion
- Low pour point, excellent fluidity in low temperatures
- Compatible with all kinds of plastic components

Specification	Typical Value	ASTM Test Method
Viscosity @ 40 °C, cSt	16.5	D 445
Viscosity @ 100 °C, cSt	4.5	D 445
Viscosity Index	80	D 2270
Flash Point, °C, Min	150	D 92
Pour Point, °C, Max	-30	D 97
Density @ 15 °C, Kg/m^3	870	D 1298



MirOil-FLUSHING

Flushing Fluid

- MirOil-Flushing is a base fluid especially designed to clean the equipments by dissolving varnish build up and solubilize sludge. This product is suitable for flushing of industrial lubrication system (except turbine) and it is recommended to use for flushing after installation and before primary startup or in exchanging used oil

Advantages

- Good oxidative stability
- Excellent cleaning leading to removal of deposits

Specification	Typical Value	ASTM Test Method
Viscosity @ 40 °C, cSt	12 - 30	D 445
Viscosity Index	80	D 2270
Flash Point, °C, Min	150 - 190	D 92
Pour Point, °C, Max	-6	D 97
Density @ 15 °C, Kg/m^3	870	D 1298

MirOil-10W

MirOil 10W OIL

10W Oil

- MirOil–10W is a high performance lubricating oil produced form high quality mineral base oils and suitable additives. This product is suitable in shaft and case of deep well pump, agriculture equipment and other simple usual lubrications.

Advantages

- Good wear production
- Good cleanliness
- Effective dispersion property
- Suitable heat transfer

Specification	SAE Grade	ASTM
	10W	Test Method
Viscosity @ 100 °C, cSt	5	D 445
Viscosity Index	85	D 2270
Flash Point, °C, Min	195	D 92
Pour Point, °C, Max	-30	D 97
TBN, mg KOH/g, Min	2	D 2896
Density @ 15 °C, Kg/m^3	880	D 1298

MirOil–DROP

MirOil DROP OIL

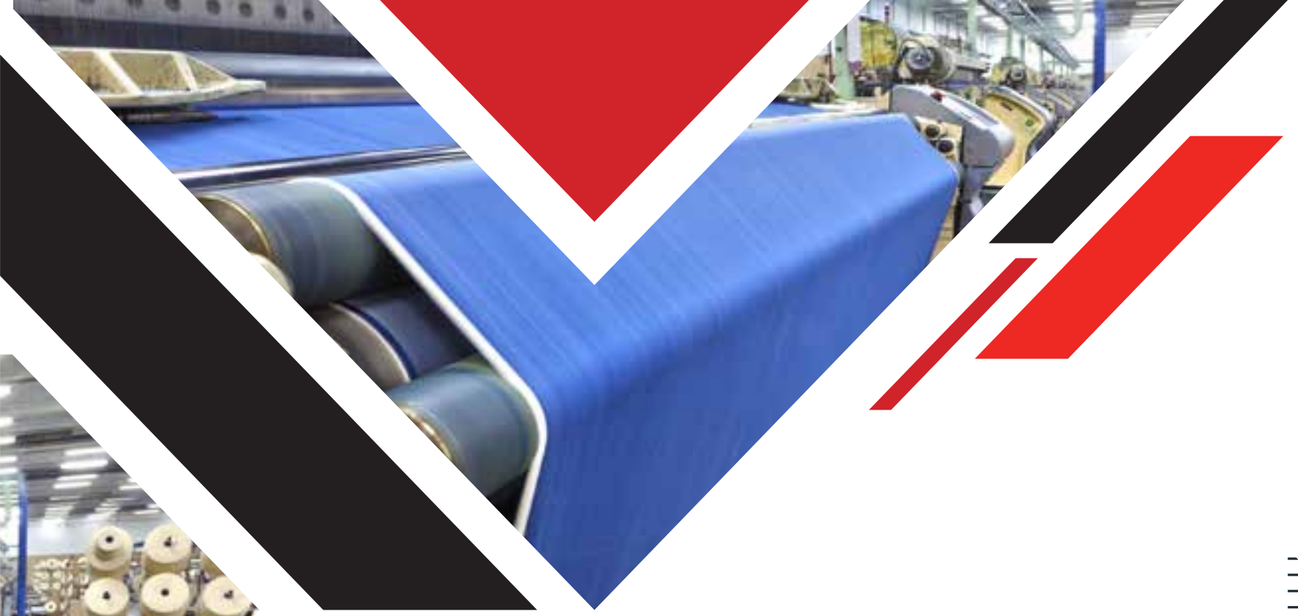
Drop Oil

- MirOil–DROP is a special lubricant manufactured based on a blend of high quality mineral base oils plus suitable additives to provide reliable protection in the recommended applications. This product is suitable in drop lubricating system, shaft and case of deep well's pump, agriculture equipment and other simple usual lubrications.

Advantages

- Good wear production
- Good cleanliness
- Effective dispersion property
- Suitable heat transfer

Specification	Typical Value	ASTM Test Method
Viscosity @ 40 °C, cSt	32	D 445
Viscosity Index	85	D 2270
Flash Point, °C, Min	180	D 92
Pour Point, °C, Max	-15	D 97
Density @ 15 °C, Kg/m³	880	D 1298



MirOil- SPINDLE

Spindle(Textile) Oil

- MirOil–Spindle is a high-performance oil which, due to their powerful additives, guarantee very good wear protection for the lubrication of needles and sinkers in circular and flat knitting machines. Special conditions in the textile industry require the use of high-performance lubricants. In addition to the typical stresses caused by high temperatures, dust, fluff and the strong influence of water, increasing production speeds place increased demands on the lubricant at a high level. MirOil-Spindle meets these requirements.

Advantages

- Excellent washability from textiles
- Protection of moving parts and extension of service life through excellent wear protection
- Energy saving and reduction of operating temperatures due to excellent friction behavior

Specification	ISO viscosity Grade				ASTM
	22	32	46	68	Test Method
Viscosity @ 40 °C, cSt	22	32	46	68	D 445
Viscosity Index	85	85	85	85	D 2270
Flash Point, °C, Min	180	200	200	205	D 92
Pour Point, °C, Max	-6	-6	-6	-6	D 97
Density @ 15 °C, Kg/m^3	865	870	875	880	D 1298

MirOil Fuel;
Energy Source

MirOil–DISTILLATE FUEL

MirOil–DISTILLATE FUEL

Distillate Fuel

- MirOil–Distillate Fuel is one of the high quality products obtained from fractions boiling above the temperature at which gasoline comes off in the distillation of used oils. Distillate fuel is used in on-highway diesel engines as well as off-highway engines this product is used primarily for space heating and electric power generation. The distillation fuel also has a very good exportable quality.

Specification	Typical Value	ASTM Test Method
Density @ 15 °C, Kg/m³	0.825	D 4052
Pour Point, °C, Max	-18	D 97
Flash Point, °C (Open Cup), Min	65	D 92
Flash Point, °C (Closed Cup), Min	50	D 93
Color	2	D 1500
Copper Corrosion @ 100 °C	2a	D 130
Sulfur, wt %	0.5	D 4294
Mercaptan Content, ppm	277	D 3227
Boiling Point		D 86
I.B.P , °C	154	
5 % , °C	182	
10 % , °C	192	
20 % , °C	210	
30 % , °C	220	
40 % , °C	240	
50 % , °C	260	
60 % , °C	272	
70 % , °C	284	
80 % , °C	310	
90 % , °C	330	
95 % , °C	385	
F.B..P , °C	-	
RECOVERY , VOL%	97	
RESIDUE , VOL%	2.8	
LOSS , VOL%	0.2	

MirOil–HYDROCARBON FUEL

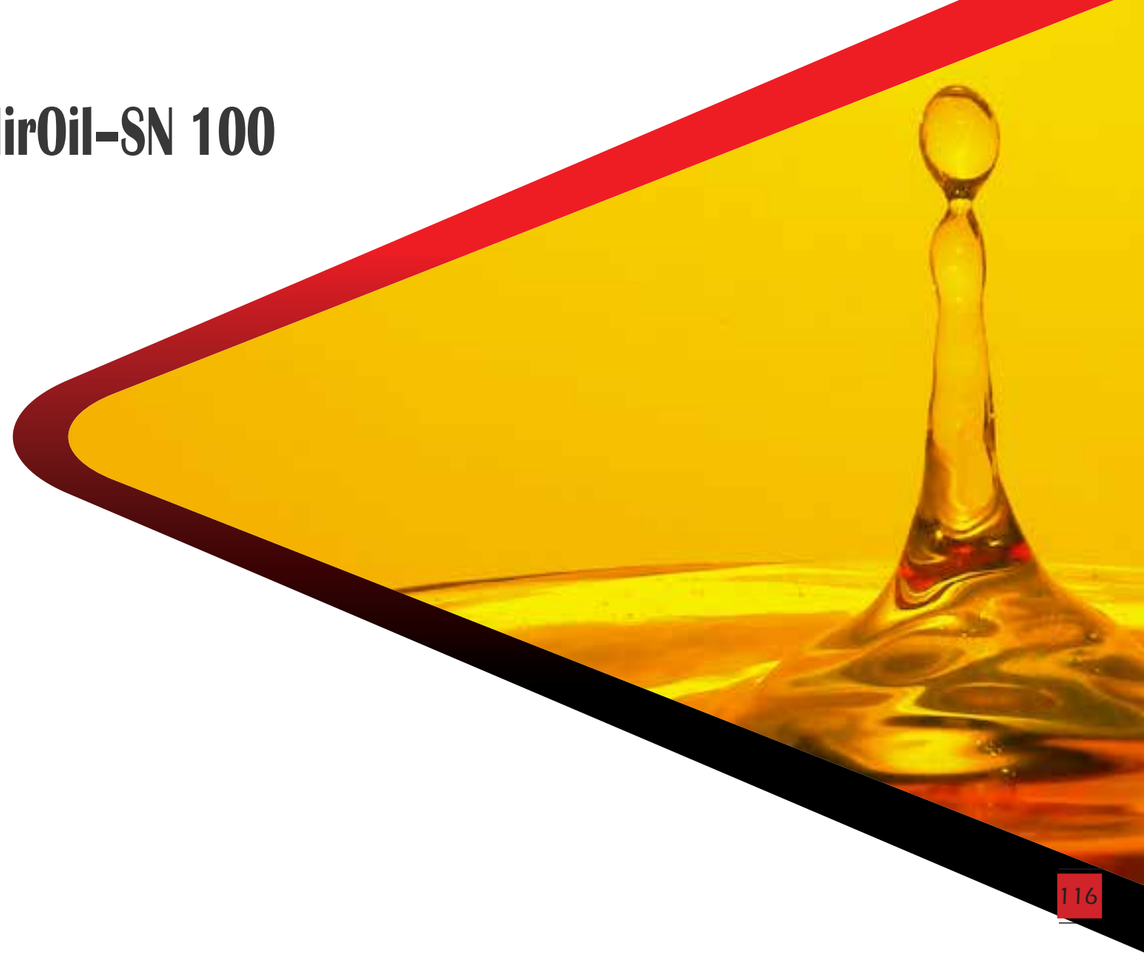
Hydrocarbon Fuel

- MirOil–Hydrocarbon Fuels are organic compounds made up hydrogen and carbon. These products are combination of components including in diesel and gasoline fuels. Depending on density, hydrocarbon fuels classify into light and heavy.
  Also, these hydrocarbons can be considered as one of the middle distillate with a boiling range of 150 to 400 degrees centigrade.

Specification	Typical Value		ASTM Test Method
	TN2	TN5	
Density @ 15 °C, Kg/m³	0.820	0.816	D 4052
Pour Point, °C, Max	-5	-18	D 97
Flash Point, °C (Open Cup), Min	54	58	D 92
Flash Point, °C (Closed Cup), Min	45	49	D 93
Color	2	2	D 1500
Copper Corrosion @ 100 °C	1a	1a	D 130
Sulfur, wt %	0.25	0.25	D 4294
Mercaptan Content, ppm	45	24	D 3227
Boiling Point			D 86
I.B.P, °C	155	160	
5 % , °C	161	161	
10 % , °C	165	165	
20 % , °C	168	168	
30 % , °C	170	172	
40 % , °C	174	178	
50 % , °C	178	184	
60 % , °C	188	208	
70 % , °C	322	374	
80 % , °C	394	392	
90 % , °C	408	405	
95 % , °C	-	-	
F.B..P , °C	-	-	
RECOVERY, VOL%	92.5	92.5	
RESIDUE, VOL%	7.4	7	
LOSS, VOL%	0.1	0.5	

MirOil-SN 100

BASE OIL



Base Oil

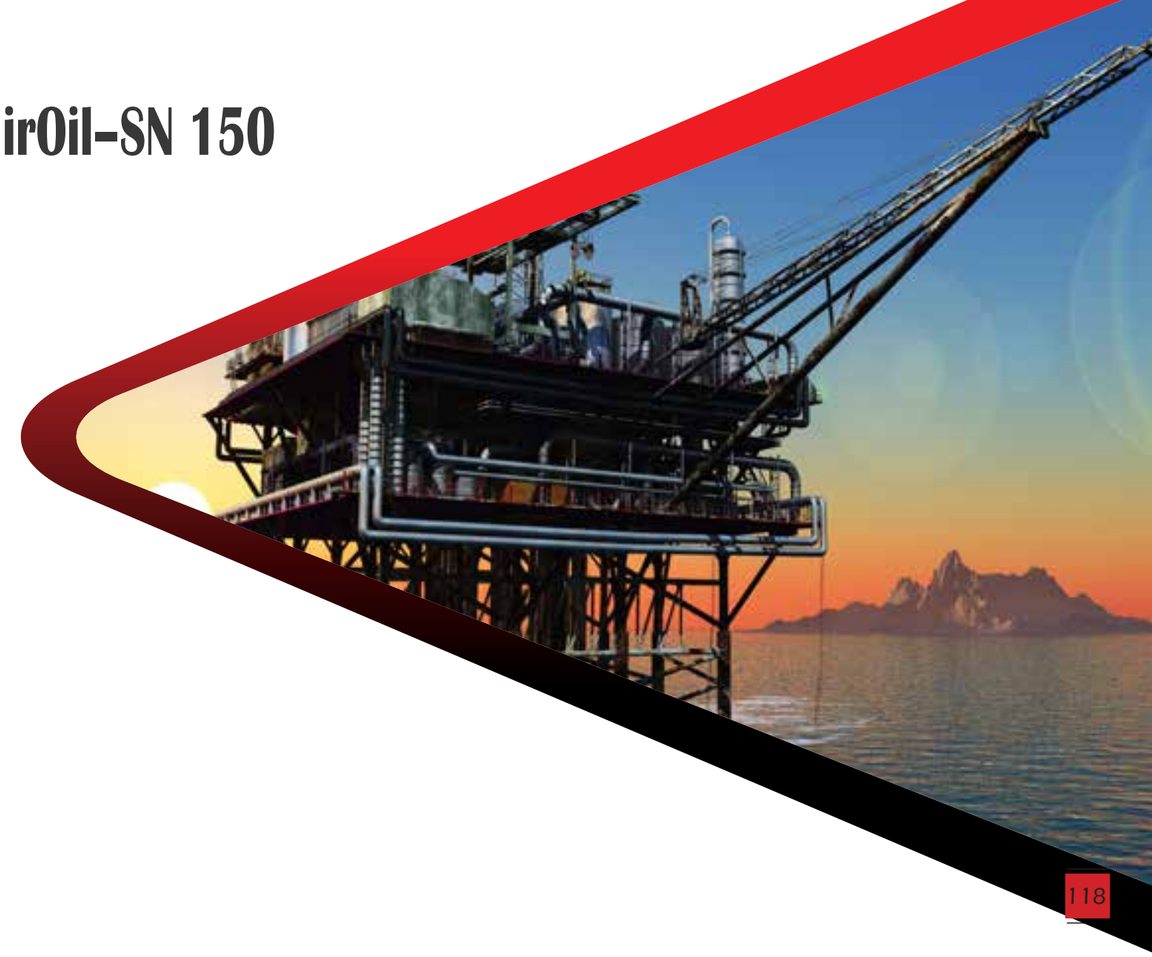
MirOil–SN 100 is known as a light grade base oil. This high viscosity index, low sulfur content base oil is mostly used in lubricant and lubricant additives production. It is a Group I base oil which has undergone solvent refining processes. To finish the refining it was hydrogen treated to clear out any impurities.

SN 100 uses as a base oil in Gear oils, Metal working fluids and Hydraulic fluids.

Specification	Typical Value	ASTM Test Method
Viscosity @ 100 °C, cSt	4.2	D 445
Viscosity Index	90	D 2270
Flash Point, °C, Min	170	D 92
Pour Point, °C, Max	-3	D 97
Density @ 15 °C, Kg/m^3	870	D 1298
Sulfur, wt %	0.5	D 4294
Color	2	D 1500

MirOil–SN 150

BASE OIL



Base Oil

- MirOil–SN 150 is a high quality group I base oil produced from vacuum fractions of crude oil, selectively refined, dewaxed by means of solvents and hydro-refined. This high viscosity index, low sulfur content base oil is the best solvent for additives and uses as a base stock for automotive and several industrial lubricants such as Transmission fluids, Gear oils, Metal working fluids and Hydraulic fluids.

Specification	Typical Value	ASTM Test Method
Viscosity @ 100 °C, cSt	4.5	D 445
Viscosity Index	90	D 2270
Flash Point, °C, Min	180	D 92
Pour Point, °C, Max	-3	D 97
Density @ 15 °C, Kg/m^3	870	D 1298
Sulfur, wt %	0.5	D 4294
Color	2	D 1500

MirOil–SN 350

BASE OIL

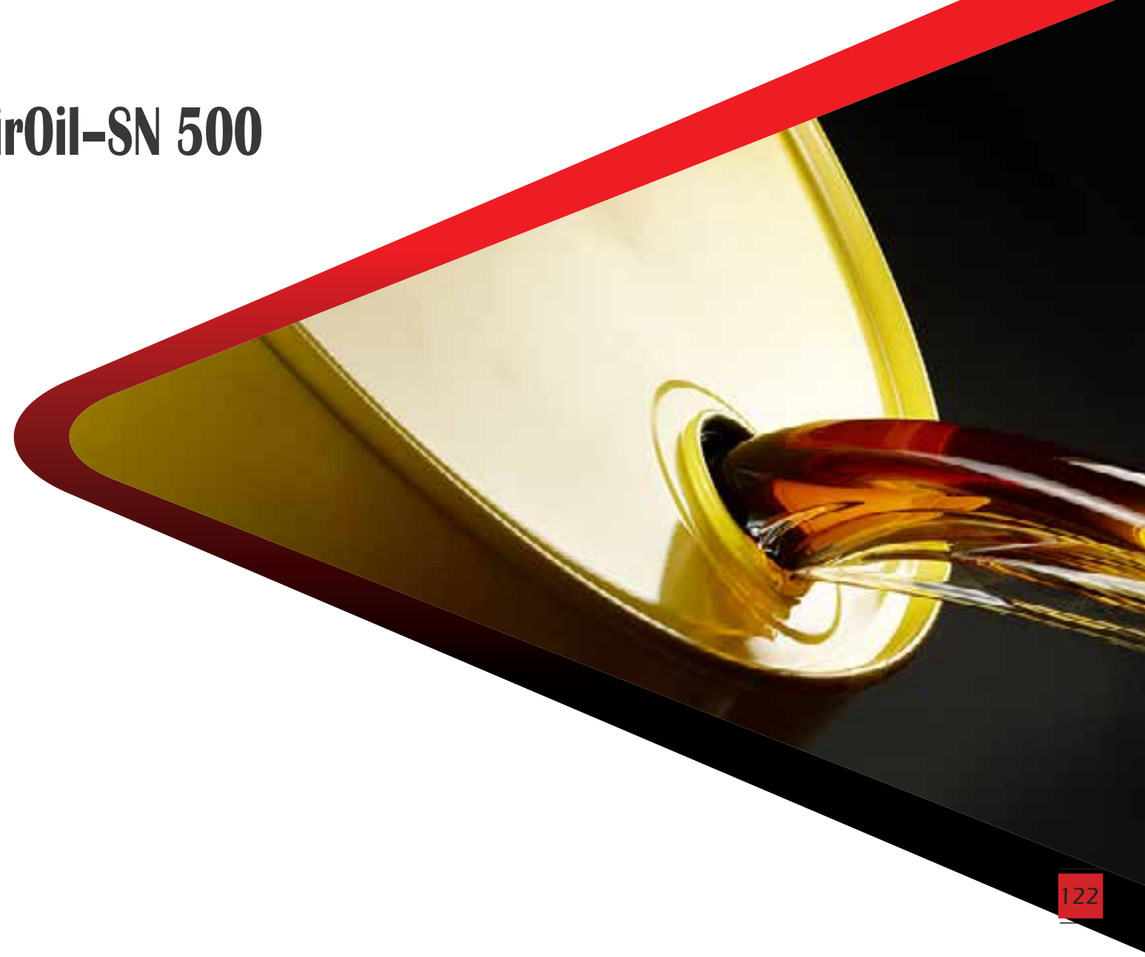
Base Oil

- MirOil–SN 350 is known as a middle grade base oil. This high viscosity index, low sulfur content base oil is mostly used in lubricant production. It is a Group I base oil which has undergone solvent refining processes. To finish the refining it was hydrogen treated to clear out any impurities.
  SN 350 has a good lubricity and is suitable as a base oil for formulation of Transmission fluids, Gear oils, Metal working fluids and Hydraulic fluids.

Specification	Typical Value	ASTM Test Method
Viscosity @ 100 °C, cSt	5.5	D 445
Viscosity Index	90	D 2270
Flash Point, °C, Min	190	D 92
Pour Point, °C, Max	-3	D 97
Density @ 15 °C, Kg/m^3	870	D 1298
Sulfur, wt%	0.5	D 4294
Color	2	D 1500

MirOil–SN 500

BASE OIL



Base Oil

- MirOil–SN 500 is a high quality Group I base oil manufactured from a solvent dewaxing and hydrofinishing process. The base oil exhibits high viscosity index as well as low content sulfur. It has an excellent viscosity-volatility relationship. It has a good lubricity and is suitable for industrial applications in compressor, hydraulic, and gear formulations.

Specification	Typical Value	ASTM Test Method
Viscosity @100°C, cSt	9.4	D 445
Viscosity Index	90	D 2270
Flash Point, °C, Min	215	D 92
Pour Point, °C, Max	0	D 97
Density @ 15 °C, Kg/m^3	870	D 1298
Sulfur, wt %	0.5	D 4294
Color	2	D 1500


Be Good To Your Bearing
MirOil GREASES
Ensuring That Certain
Components Stay Protected

MirOil-Li GREASE

MirOil-Li GREASE

Lithium Grease

- MirOil-Li series are multipurpose high quality lithium soap based grease for use in a wide range of heavy duty on-road trucking, automotive applications and other automotive and industrial applications where calcium and sodium based grease are not suitable for use. These water resistant products are manufactured from high quality solvent refined base oils and performance additives and are available in NLGI 1, 2 and 3.

Advantages

- Improved mechanical stability and resistance to softening ensures long lubricant life and prevents leak out of bearings
- Excellent low temperature fluidity/pumpability even in cold weather
- Making it ideal for use in centralized lubrication systems on vehicles as well as industrial applications
- High drop point ensures extended operating range of up to 120˚C

Specification	Typical Valeu			ASTM Test Method
	NLGI 1	NLGI 2	NLGI 3	
Colour	Black	Black	Black	Visual
Texture	Smooth	Smooth	Smooth	
Consistency, Worked 60X	325	280	235	D 217
Consistency, Worked 100 000X	15	20	26	D 217
Dropping Point, °C	186	192	194	D 2265
Oil Separation, Mass %	7	3	1	D 1742
Oxidation Stability (100 hrs)	0.25	0.25	0.25	D 442
Copper Corrosion	1b	1b	1b	D 4048
Rust Protection	Pass	Pass	Pass	D 1743

MirOil-Ca GREASE

MirOil-Ca GREASE

Calcium Grease

- MirOil- Ca Grease is calcium thickened lubricating grease based on highly refined mineral oils and contains antioxidants, corrosion inhibitors and antiwear additives.
  It is a water resistant grease designed for general application such as all types of anti-friction and plain bearings, including those subjected to oscillatory movement through limited angles

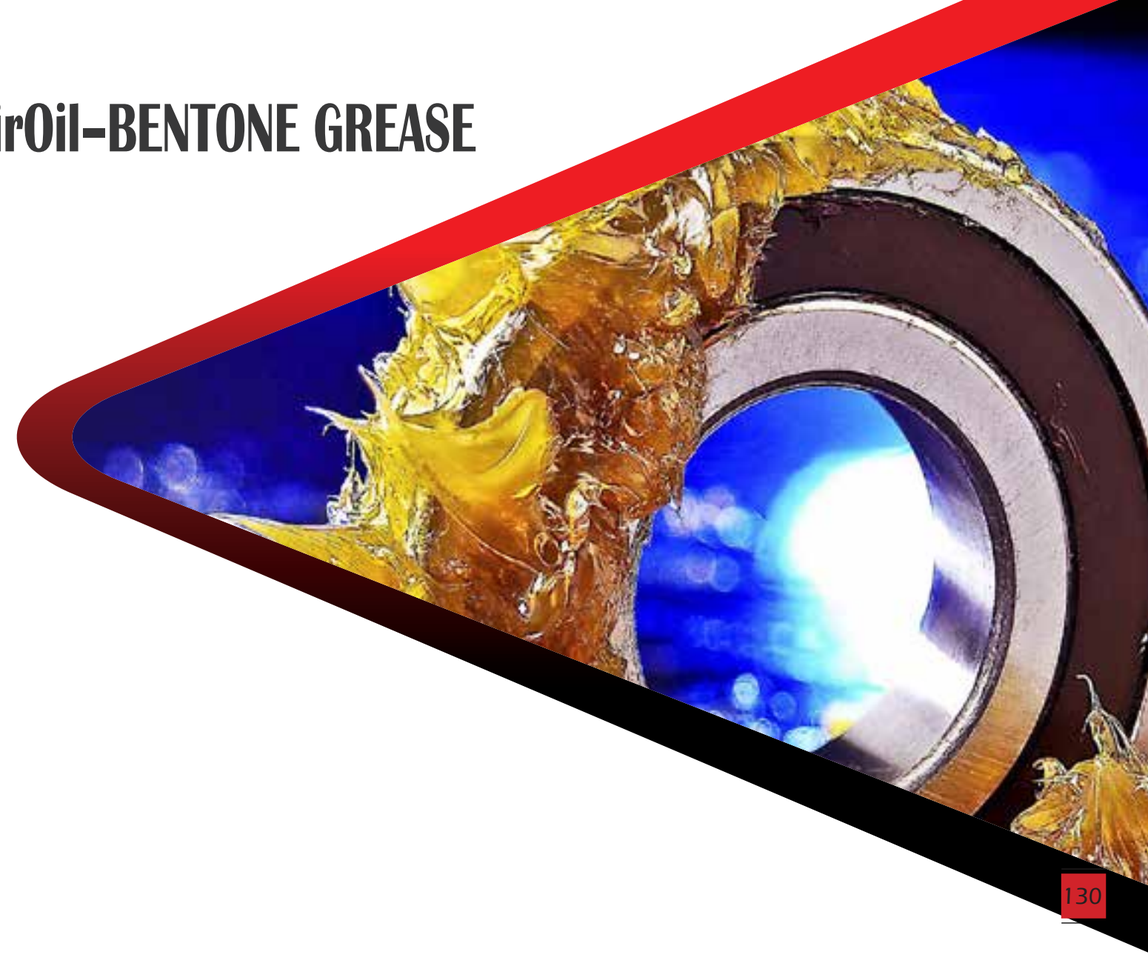
Advantages

- Good mechanical stability
- Good corrosion protection
- Excellent adhesiveness

Specification		Typical Value		Test Method
Colour	Brown	Brown	Brown	Visual
NLGI Consistency (National Lubricating Grease Institute)	1	2	3	ASTM D 217
Approximate Density @ 20 °C, kg/m³	950	950	950	IPPM-CS/03
Base Oil Viscosity @ 40 °C, cSt	110	110	110	ISO 12058
Base Oil Viscosity @ 100 °C, cSt	9	9	9	ISO 12058
Dropping Point, Min	95	95	95	IP 396
Mechanical Stability: Penetration 60 Strokes	310-340	265-295	220-250	ISO 2137
Corrosion Protection: SKF Emcar WWO Distilled Water SKF Emcor WWO Salt Water Copper Corrosion 24 hrs @ 100 °C	 0-0 2-2 1b	 0-0 2-2 1b	 0-0 2-2 1b	 ISO 11007 ISO 11007 ASTM D 4048
Water Stability: Water Resistance Water Washout after 1 hr @ 80 °C, %	 1-90 6	 1-90 5	 1-90 4	 DIN 51807-1 ISO 11009
Anti-Wear Properties: 4-Ball Wear Scar after 60 sec @ 1400 N, mm	 0.6	 0.6	 0.6	 DIN 51350-5

MirOil-BENTONE GREASE

MirOil-BENTONE GREASE



Bentone grease

- MirOil-Bentone grease is a bentone clay thickened lubricating grease based on mineral oil and contains anti-oxidants, corrosion inhibitors, extreme pressure and anti-wear additives. It is a high performance product suitable for both industrial and automotive applications

Advantages

- Suitable for applications within a very wide temperature range and especially applications at elevated temperatures.
- Good corrosion protection which is important in wet and corrosive environments.
- Excellent load carrying capacity making it suitable for heavily loaded applications

Specification	Typical Valeu	Test Method
Colour	Brown	Visual
NLGI Consistency (National Lubricating Grease Institute)	2	ASTM D 217
Approximate Density @ 20 °C, kg/m^3	920	IPPM-CS/03
Base Oil Viscosity @ 40 °C, cSt	475	ISO 12058
Base Oil Viscosity @ 100 °C, cSt	31	ISO 12058
Dropping Point	not applicable	IP 396
4-Ball Weld Load	3200 N	DIN 51350-4
Mechanical Stability: Penetration 60 Strokes Penetration 100.000 Strokes	 265 - 295 +55	 ISO 2137 ISO 2137
Corrosion Protection: Copper Corrosion 24 hrs @ 100 °C	1b	ASTM D 4048
Oil Separation Separation 168 hrs @ 40 °C, %	3	IP 121
Oxidation Stability 100 hrs @ 100 °C	50 kPa	ASTM D 942
Flow Pressure @ -35 °C, Max	1400 hPa	DIN 51805