

INTRODUCTION

ABOUT US

SK Lubricants, a fully-owned subsidiary of SK Innovation, is the leading producer, distributor and marketer of premium base oil, lubricating oils across the globe. The company headquartered in South Korea, exports products to over 60 countries.

SK Lubricants has led and changed the lubricants industry by pursuing innovations to offer better products to our customers. We were the first to commercialize API Group III base stock in the world in 1995. That same year, SK's brand name finished lubricants were launched in the South Korean domestic market. Since then, we have expanded our distribution networks to supply high quality base oils and lubricants to our global customers.

SK Lubricants is expanding its ZIC brand and network globally, while simultaneously strengthening its brand power. It is our goal to provide the best quality products, and build trust with our valued customers.

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ZIC ATF XP3/SP4
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TRACTOR FLUID

UNDER THE HOOD OIL ZIC SUPER A ZIC DOT

PRODUCT CHART 56

SK UTF

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Global No. 1 in Group III base oil

SK Lubricants produces a base oil called "YUBASE" that is Number 1 globally in the premium base oil market. High-quality ZIC lubricants formulated with YUBASE are used as factory fill in vehicles produced by global manufacturers.



Supplies to Global Motor Companies

SK Lubricants supplies lubricants to many vehicle manufacturers around the globe.





ZIC was selected as the best lubricants

in Russia in a test conducted by Za

Rulem. The quality of ZIC has been

proven in the one of the most severe

No. 1 engine oil in Korea

ZIC has been nominated as the Number 1 engine oil for 19 consecutive years in Korea by K-BPI(*). Global marketing activities are being implemented to promote the brand power of ZIC.

(*) ... Korea Brand Power Index



Meets OEM Quality Standard

SK's products meet the quality standard of global motor companies such as Hyundai, Kia, GM, Mercedes Benz, BMW, Volkswagen/Audi and etc.



ZIC brand export

Proven Quality

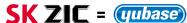
SK Lubricants is the first to supply ZIC to an oil producing country (Saudi Arabia) from Korea. SK will continue to promote the value of ZIC products to gain worldwide recognition.







Group III base oil 'YUBASE' makes the difference. experience the outstanding performance of ZIC.



Increases fuel economy

With VHVI (Very High Viscosity Index) technology, the quality of ZIC can improve the fuel economy of your vehicle.

Engine Protection

ZIC creates a strong film to protect the engine in a variety of circumstances. A consistent viscosity is maintained, and additive performance is maximized with YUBASE.

Protects from corrosion and rust

ZIC is formulated with special additive technology that sets up a barrier between the engine components and corrosive material. Using ZIC will prevent or minimize internal corrosion and rust.

Keeps the engine clean

Formulated with YUBASE, ZIC helps to maintain cleanliness by removing contaminants that will otherwise adhere to the components of the engine.

Enhances power

ZIC provides dynamic seals in piston rings and where there is cylinder contact to help combustion. This enhances the power of the engine.

Extended drain interval

With the excellent oxidation stability and high viscosity index of YUBASE, ZIC maintains its performance even in severe conditions such as high temperatures and stress.



1968

Plant ('68. 12)

Blending

1985

Established R&D Lab ('85)

ESSO Technical License ('85.09)

1995

Terminated ESSO License ('95.03)

ZIC launching ('95.10)

ZIC

2003

SK lubricants China



2006

Moscow Subsidiary 2011

Tianjin Lube Plant

SK lubricants India



2013

SK lubricants Russia



2015

New SK ZIC ('15.08)

SKZIC

Export ZIC Brand to Saudi Arabia 2016

SK ZIC Brand Slogan Development

BEFORE ZIC

1963

1963

Started

lubricants

Business

1989

Launched SK Product Brand ('89.10)

SU5000 GOLD S05000 MAX



2001

Launched ZIC XQ ('01.10)

ZICXQ



2012

Sponsored F1 Korea Grand Prix ('11-'12)



2014

Launched [I'm ZIC]



SINCE THE RELEASE OF ZIC



"I'm ZIC" is SK Lubricants' authorized distribution channel brand for premium ZIC engine oil.

SK Lubricants launched the "I'm ZIC" as the brand for authentic distribution channels in 2014. Through "I'm ZIC" locations, SK Lubricants offers valued customers the ultimate ZIC vehicle experience.

'm ZIC Confidence

- Our customers can trust that we are providing authentic ZIC engine oil.
- · We will always recommend the best engine oil for the customer's vehicle.

I'm ZIC Trust System

- · Reliable Quality
- · Authentic Products
- · Assured After-Sales Service
- · Guaranteed Performance
- · Qualified Mechanics
- Standardized Maintenance
 Procedures



NEW ZIC LAUNCH CELEBRATING 20 YEARS



5W-30

FULLY SYNTHETIC

In celebration of the 20th anniversary of the launch of ZIC in 1995, SK Lubricants introduced a redesigned logo, updated packaging. New product names ensure consumers can easily determine product grade. Gold, Silver, Blue and Red packaging reflect an identifying color system.

The new package with a slim opening maximizes user convenience with an enhanced grip, while the curved lines and stylish shape improves its image.

SLIM TOP OPENING

Clean, Oil-injected Engine Capable of Silm Container Inlet

ENHANCED GRIP

Texture to the Surface with the Enhanced Grip

CATEGORIZED LABEL COMPONENTS

SK ZIC label components includes all relevant information such as

- · Unique product name
- · Technical differentiation
- · Viscosity grade
- · Certification of synthetic oil

UNIQUE TECHNOLOGY AND **SPECIFICATION**

- · SK's proprietary technology VHVI tech
- · Standard product approvals and applicable vehicles

MODERN DESIGN

Succession of curves with a diagonal line and the ZIC logo incorporated in the existing container secures the modern and premium brand image.

SK ZIC has incorporated these anti-counterfeit components.



All products are sealed to ensure the product is new and unopened.

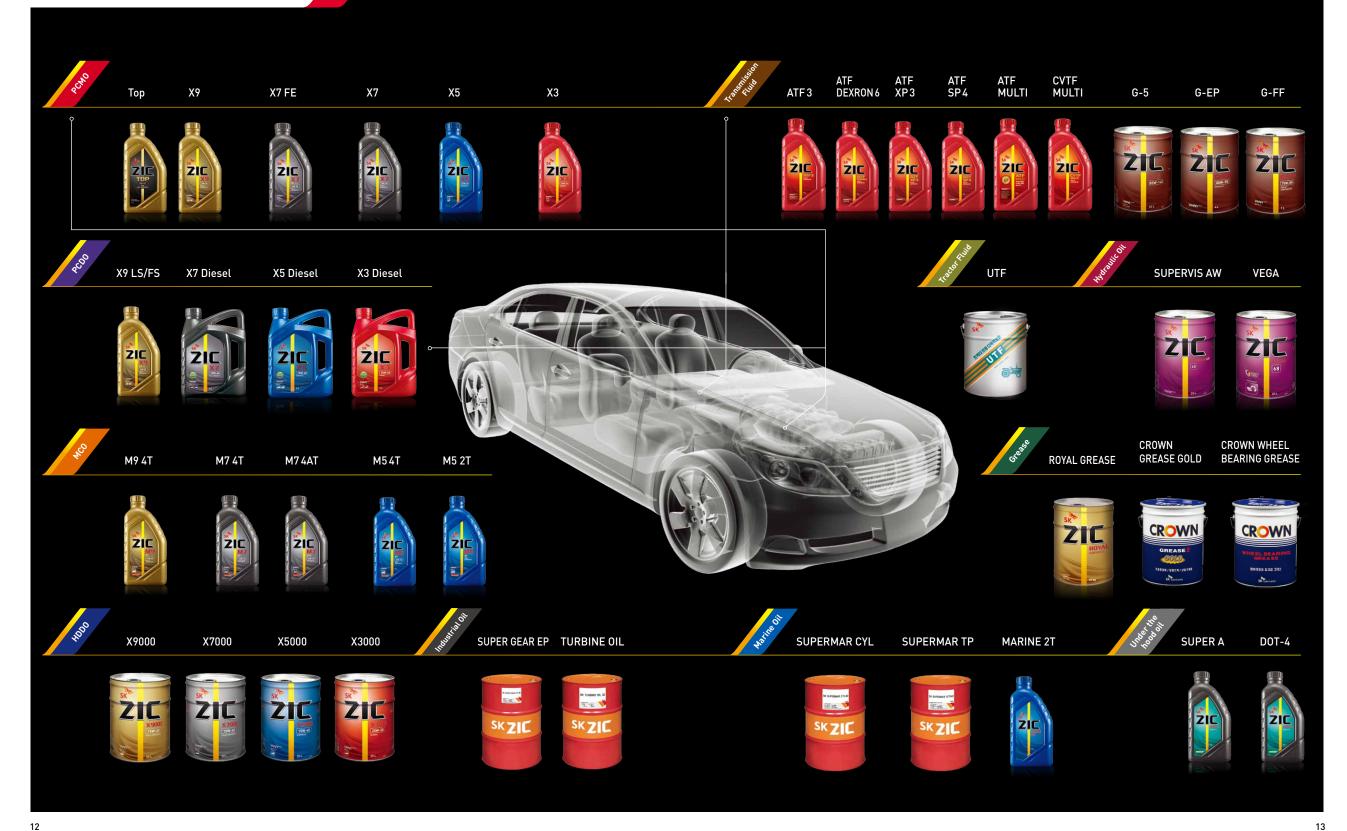


according to package movement.



PRODUCT LINE-UP

APPLICATION OF ZIC





ZICTOP

ZIC TOP is a PAO based 100% synthetic engine oil formulated to meet the needs of high performance premium vehicles.

ZIC TOP represents ZIC's superior technology, protecting your engine through the life of your vehicle. ZIC TOP properties allow your vehicle to respond even in the coldest temperatures, and will provide extra protection and consistent performance for the life of the vehicle.







- · Excellent wear protection for extended engine life
- · Maximizes acceleration and performance in extreme driving conditions
- · Outstanding sludge control to keep the engine clean
- · Advanced fuel efficiency and oil durability

DESCRIPTION

ZIC TOP is an ultimate advanced 100% synthetic motor oil, newly launched as the flagship tier of ZIC. ZIC TOP is formulated with PAO base oil and ZIC's cuttingedge additive technology. ZIC TOP helps to extend your engine life by protecting from wear and corrosion. ZIC TOP also provides outstanding engine performance under the most severe conditions and keeps your engine clean and powerful.

RECOMMENDATIONS

· Recommended for Gasoline/Diesel/LPG engines

TYPICAL PROPERTIES

SAE Grade	5W-30	0W-40
Density, g/cm³	0.8535	0.8540
Kinematic Viscosity at 40°C, cSt	68.75	84.35
Kinematic Viscosity at 100°C, cSt	11.95	14.35
Viscosity Index	171	175
Total Base Number (TBN), mgK0H/g	6.20	9.85
Flash Point, °C	230	230
Pour Point, °C	-39	-42
CCS, cP	6,100 (-30°C)	6,100 (-35°C)
MRV, cP	20,000 (-30°C)	30,000 (-40°C)
HTHS Viscosity at 150°C, cP	3.60	3.70



GENERAL CHARACTERISTICS

- Exceeds the requirements of GM-LL-B-025

- · Exceptional engine protection and oil durability
- · Excellent deposit and sludge control for engine cleanliness
- · Maximizes acceleration and performance
- · Excellent fuel economy
- · Approved by the European automakers (Mercedes, BMW, VW, PORSCHE)

DESCRIPTION

ZIC X9 is a fully synthetic motor oil formulated with VHVI Technology, engineered to deliver outstanding engine protection and cleanliness under the most severe conditions. ZIC X9 meets or exceeds the highest performance standards of European, Japanese, Korean and U.S automakers.

RECOMMENDATIONS

· Recommended for Gasoline/Diesel/LPG engines

TYPICAL PROPERTIES

SAE Grade	5W-40
Density, g/cm³	0.8550
Kinematic Viscosity at 40°C, cSt	83.21
Kinematic Viscosity at 100°C, cSt	13.89
Viscosity Index	172
Total Base Number (TBN), mgKOH/g	9.17
Flash Point, °C	220
Pour Point, °C	-42
CCS, cP	6,000 (-30°C)
MRV, cP	25,000 (-35°C)



- · Strong oil film for wear resistance and engine protection
- · Excellent fuel economy
- · Low volatility for lower oil consumption and longer drain intervals
- · Enhanced high and low temperature performance

DESCRIPTION

ZIC X7 FE is a premium fully synthetic motor oil, engineered to maximize fuel savings. ZIC X7 FE's unique friction modifiers maximize your engine's performance for dynamic driving. ZIC X7 FE is formulated with VHVI Technology for lower oil consumption and longer drain intervals. ZIC X7 generates a strong oil film to protect your engine from wear. ZIC X7 FE is especially developed for hybrid vehicles requiring 0W grade engine oils.

RECOMMENDATIONS

· Recommended for Gasoline/CNG/LPG engines

TYPICAL PROPERTIES

SAE Grade	0W-20	0W-30	5W-20
Density, g/cm³	0.8449	0.8430	0.8525
Kinematic Viscosity at 40°C, cSt	44.74	54.80	49.32
Kinematic Viscosity at 100°C, cSt	8.429	10.25	8.596
Viscosity Index	166	178	153
Total Base Number (TBN), mgK0H/g	7.95	8.05	8.00
Flash Point, °C	220	220	220
Pour Point, °C	-39	-39	-36
CCS, cP	6,100 (-35°C)	5,900 (-35°C)	5,700 (-30°C)
MRV, cP	31,000 (-40°C)	42,00 (-40°C)	30,000 (-35°C)



GENERAL CHARACTERISTICS

- · Excellent wear protection and fuel economy
- · Excellent deposit and sludge control for engine cleanliness
- \cdot Excellent oxidation stability and low volatility for longer drain interval
- · Enhanced high and low temperature performance

DESCRIPTION

ZIC X7 is a 100% synthetic motor oil engineered to deliver outstanding engine protection with VHVI Technology. ZIC X7 helps extend engine life by protecting your engine from wear and keeping the engine clean. ZIC X7 provides excellent performance in both high and low temperatures. Its great friction control technology maximizes fuel economy in vehicles where SAE 5W-30 oils are recommended.

RECOMMENDATIONS

· Recommended for Gasoline/CNG/LPG engines

TYPICAL PROPERTIES

SAE Grade	5W-30	10W-40
Density, g/cm³	0.8535	0.8559
Kinematic Viscosity at 40°C, cSt	64.20	94.30
Kinematic Viscosity at 100°C, cSt	10.84	14.30
Viscosity Index	160	155
Total Base Number (TBN), mgK0H/g	7.95	7.91
Flash Point, °C	230	220
Pour Point, °C	-36	-36
CCS, cP	6,200 (-30°C)	5,200 (-25°C)
MRV, cP	26,000 (-35°C)	30,00 (-30°C)



- · Outstanding wear protection
- · Advanced deposit and sludge control for engine cleanliness
- $\cdot \ \text{Outstanding oxidation stability for longer drain interval} \\$
- · Superior performance versus mineral-based oils

DESCRIPTION

ZIC X5 is a synthetic motor oil formulated with VHVI technology providing superior performance over motor oils formulated using mineral oil. ZIC X5 is designed to provide wear protection for longer engine life with outstanding deposit and sludge control.

RECOMMENDATIONS

· Recommended for Gasoline/CNG/LPG engines

TYPICAL PROPERTIES

SAE Grade	10W-30	15W-40	20W-50
Density, g/cm³	0.8610	0.8559	0.8720
Kinematic Viscosity at 40°C, cSt	65.18	94.30	160.4
Kinematic Viscosity at 100°C, cSt	10.45	14.30	19.08
Viscosity Index	152	155	139
Total Base Number (TBN), mgK0H/g	7.85	7.91	7.96
Flash Point, °C	220	220	240
Pour Point, °C	-36	-36	-33
CCS, cP	4,300 (-25°C)	3,500 (-20°C)	5,200 (-15°C)
MRV, cP	13,000 (-30°C)	13,500 (-25°C)	16,500 (-20°C)



GENERAL CHARACTERISTICS

- \cdot Extends life of high mileage engines through wear and sludge protection
- · Prevents engine leaks and high oil consumption
- · Excellent balance between protection and performance

DESCRIPTION

ZIC X3 is a higher viscosity premium motor oil with proven wear and sludge protection to extend engine life in high mileage vehicles. ZIC X3 works to reduce heat and stress on key engine components. ZIC X3 prevents engine leaks and reduces oil consumption.

RECOMMENDATIONS

· Recommended for Gasoline/CNG/LPG engines

TYPICAL PROPERTIES

SAE Grade	15W-40	20W-50
Density, g/cm³	0.8620	0.8720
Kinematic Viscosity at 40°C, cSt	99.85	160.4
Kinematic Viscosity at 100°C, cSt	14.30	19.08
Viscosity Index	150	139
Total Base Number (TBN), mgK0H/g	7.50	7.96
Flash Point, °C	220	240
Pour Point, °C	-33	-33
CCS, cP	5,000 (-20°C)	5,200 (-15°C)
MRV, cP	12,500 (-25°C)	16,500 (-20°C)



- · Maximum power transfer and smooth shifting
- · Ultimate wear protection
- · Excellent thermal and oxidation stability
- · Great corrosion protection
- · Outstanding engine cleanliness
- · Longer engine life and longer life of valve train and bearing components

DESCRIPTION

ZIC M9 4T is formulated with VHVI fully synthetic technology to help provide the ultimate protection for your engine, transmission and gears. It guarantees maximum power transfer and smooth shifting for high performance.

RECOMMENDATIONS

· Recommended for 4-stroke motorcycles

TYPICAL PROPERTIES

SAE Grade	10W-40
Density, g/cm³	0.8540
Kinematic Viscosity at 40°C, cSt	91.52
Kinematic Viscosity at 100°C, cSt	14.25
Viscosity Index	163
Total Base Number (TBN), mgK0H/g	7.24
Flash Point, °C	230
Pour Point, °C	-36
CCS, cP	4,300 (-25°C)
MRV, cP	12,500 (-30°C)
HTHS Viscosity at 150°C, cP	3.90



GENERAL CHARACTERISTICS

- · Excellent wear protection
- · Excellent thermal and oxidation stability
- · Great corrosion protection
- · Longer engine life and longer life of valve train and bearing components

DESCRIPTION

ZIC M7 4T is designed to provide excellent engine protection for your engine, transmission and gears. It guarantees maximum power transfer and smooth shifting for high performance.

RECOMMENDATIONS

 \cdot Recommended for 4-stroke motorcycles

TYPICAL PROPERTIES

SAE Grade	10W-30	10W-40	20W-40
Density, g/cm³	0.8530	0.8540	0.8768
Kinematic Viscosity at 40°C, cSt	68.50	89.65	120.0
Kinematic Viscosity at 100°C, cSt	10.75	14.05	14.17
Viscosity Index	155	163	118
Total Base Number (TBN), mgK0H/g	5.70	5.84	5.63
Flash Point, °C	230	230	230
Pour Point, °C	-36	-33	-30
CCS, cP	4,000 (-25°C)	3,800 (-25°C)	6,500 (-15°C)
MRV, cP	12,500 (-30°C)	18,000 (-30°C)	16,000 (-20°C)



- · Excellent wear protection
- · Excellent thermal and oxidation stability
- · Great corrosion protection
- · Longer engine life and longer life of valve train and bearing components

DESCRIPTION

ZIC M7 4AT is designed to provide excellent protection for your engine. It guarantees smooth riding performance for 4-stroke scooters.

RECOMMENDATIONS

· Recommended for 4-stroke motorcycles

TYPICAL PROPERTIES

SAE Grade	10W-40	20W-40
Density, g/cm³	0.8588	0.8742
Kinematic Viscosity at 40°C, cSt	91.54	109.6
Kinematic Viscosity at 100°C, cSt	13.64	13.53
Viscosity Index	152	121
Total Base Number (TBN), mgKOH/g	7.15	5.84
Flash Point, °C	230	230
Pour Point, °C	-39	-36
CCS, cP	5,600 (-25°C)	4,600 (-15°C)
MRV, cP	19,000 (-30°C)	11,000 (-20°C)



GENERAL CHARACTERISTICS

· Excellent wear protection

· Excellent thermal and oxidation stability

· Excellent corrosion protection

DESCRIPTION

ZIC M5 4T is designed to provide protection for your engine, transmission and gears. It guarantees maximum power transfer and smooth shifting for 4-stroke motorcycles.

RECOMMENDATIONS

· Recommended for 4-stroke motorcycles

TYPICAL PROPERTIES

SAE Grade	20W-40	20W-50	10W-50
Density, g/cm³	0.8745	0.8750	0.8586
Kinematic Viscosity at 40°C, cSt	118.8	170.6	132.10
Kinematic Viscosity at 100°C, cSt	14.22	19.85	18.57
Viscosity Index	122	125	158
Total Base Number (TBN), mgK0H/g	4.62	4.56	4.59
Flash Point, °C	240	240	240
Pour Point, °C	-30	-30	-33
CCS, cP	5,900 (-15°C)	6,500 (-15°C)	6,600 (-15°C)
MRV, cP	16,500 (-20°C)	19,500 (-30°C)	20,500 (-20°C)



- · Excellent wear protection
- · Excellent thermal and oxidation stability
- · Excellent corrosion protection

DESCRIPTION

ZIC M5 2T is a high quality 2-cycle engine oil designed to provide ideal engine protection for your engine, rust and corrosion prevention and engine cleanliness.

RECOMMENDATIONS

· Recommended for 2-stroke motorcycles

TYPICAL PROPERTIES

Product Name	M5 2T
Color	BLUE
Density, g/cm³	0.8617
Kinematic Viscosity at 40°C, cSt	51.27
Kinematic Viscosity at 100°C, cSt	8.451
Viscosity Index	140
Total Base Number (TBN), mgKOH/g	1.275
Flash Point, °C	110
Pour Point, °C	-42



GENERAL CHARACTERISTICS

- · Advanced Low SAPS Technology for after treatment system protection
- · Excellent wear protection and sludge/deposit control
- · Maximizes acceleration and performance
- · Excellent fuel economy
- · Approved by the European automakers

DESCRIPTION

ZIC X9 LS/FS is a fully synthetic engine oil specifically engineered to meet the stringent requirements of European passenger cars equipped with gasoline direct injection, turbo charger, or diesel common rail direct injection with after treatment devices (DPF or SCR). ZIC X9 LS/FS provides superior wear and sludge protection to keep your engine in optimum condition.

RECOMMENDATIONS

· Recommended for Gasoline/Diesel/LPG engines with DPF or SCR

TYPICAL PROPERTIES

SAE Grade	X9 LS 5W-30	X9 FS 5W-30
Density, g/cm³	0.8540	0.85
Kinematic Viscosity at 40°C, cSt	66.12	59.84
Kinematic Viscosity at 100°C, cSt	11.72	10.29
Viscosity Index	174	161
Total Base Number (TBN), mgKOH/g	7.02	8
Flash Point, °C	220	234
Pour Point, °C	-39	-42
CCS, cP	5,600 (-30°C)	5,400 (-30°C)
MRV, cP	25,000 (-35°C)	25,300 (-35°C)
HTHS Viscosity at 150°C, cP	3.54	3.1



- · Advanced engine protection against wear and high temperature
- · Excellent engine cleanliness through sludge and deposit control
- \cdot Optimized formulation to enhance performance of the engine

DESCRIPTION

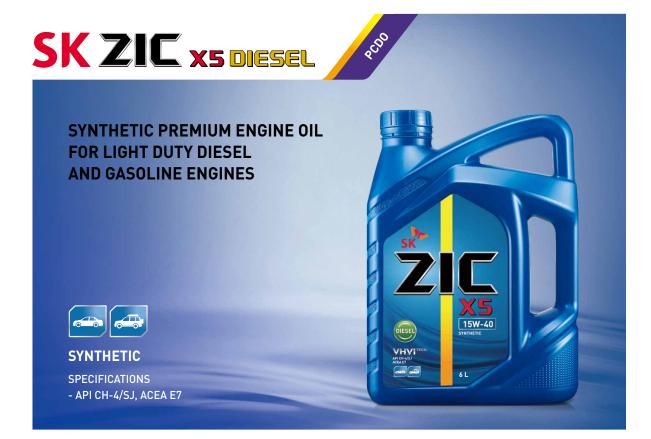
ZIC X7 Diesel is a 100% fully synthetic engine oil engineered for modern, high performance diesel engines. ZIC X7 Diesel is especially formulated to suit modern common rail turbo direct injection(CRDI) diesel engines in SUV, Commercial Utility Vehicles and Pick-up trucks. ZIC X7 protects engines against wear and high temperature and keeps engines clean though excellent sludge and deposit control.

RECOMMENDATIONS

Recommended for light duty diesel engines: SUVs, Commercial Utility Vehicles, Pickup trucks and other small diesel engines

TYPICAL PROPERTIES

SAE Grade	5W-30	10W-30	10W-40
Density, g/cm³	0.8536	0.8620	0.8578
Kinematic Viscosity at 40°C, cSt	66.65	72.15	98.81
Kinematic Viscosity at 100°C, cSt	11.31	10.90	15.04
Viscosity Index	160	140	158
Total Base Number (TBN), mgKOH/g	9.60	9.74	9.91
Flash Point, °C	220	220	225
Pour Point, °C	-39	-33	-36
CCS, cP	6,200 (-30°C)	6,200 (-30°C)	5,600 (-30°C)
MRV, cP	35,000 (-35°C)	23,000 (-30°C)	21,000 (-30°C)
HTHS Viscosity at 150°C, cP	3.49	-	4.06



GENERAL CHARACTERISTICS

- · Advanced engine protection against wear and high temperature
- · Excellent engine cleanliness through sludge and deposit control
- · Optimized formulation to enhance performance of the engine

DESCRIPTION

ZIC X5 Diesel is a synthetic blend motor oil formulated with VHVI technology offering superior driving performance over motor oils formulated using mineral oil alone. ZIC X5 Diesel is especially designed for Pick-up trucks, Vans, SUVs, MPVs and 4WD off-road vehicles. ZIC X5 Diesel delivers enhanced engine protection and improved soot prevention along with enhanced start-up performance.

RECOMMENDATIONS

· Recommended for light duty diesel and gasoline engines

TYPICAL PROPERTIES

10W-30	15W-40
0.8642	0.8653
73.60	104.8
10.97	14.85
138	148
10.10	9.75
230	225
-36	-33
6,200 (-25°C)	4,100 (-20°C)
21,000 (-30°C)	20,000 (-25°C)
	0.8642 73.60 10.97 138 10.10 230 -36 6,200 (-25°C)



- Extends the life of high mileage engines against wear and high temperatures
- · Great engine cleanliness though sludge and deposit control
- · Excellent balance between protection and performance

DESCRIPTION

ZIC X3 Diesel is a premium motor oil with proven wear protection and sludge control to extend engine life in high mileage light duty diesel vehicles. ZIC X3 Diesel works to reduce heat and stress on key engine components.

RECOMMENDATIONS

· Recommended for light duty diesel engines

TYPICAL PROPERTIES

SAE Grade	10W-30	15W-40	20W-50
Density, g/cm³	0.8642	0.8650	0.8746
Kinematic Viscosity at 40°C, cSt	73.60	103.4	150.5
Kinematic Viscosity at 100°C, cSt	10.97	14.49	17.81
Viscosity Index	138	144	131
Total Base Number (TBN), mgK0H/g	10.10	10.27	10.41
Flash Point, °C	230	230	240
Pour Point, °C	-36	-33	-33
CCS, cP	6,200 (-25°C)	4,200 (-20°C)	5,200 (-15°C)
MRV, cP	21,000 (-30°C)	16,000 (-25°C)	17,000 (-20°C)

SKZIC x9000 100% FULLY SYNTHETIC HEAVY-**DUTY ENGINE OIL FOR ULTIMATE** PERFORMANCE, FUEL EFFICIENCY AND EXTENDED DRAIN INTERVALS FULLY SYNTHETIC **SPECIFICATIONS** [10W-40] - ACEA E6/E4 - Approved: MB 228.51; Volvo VDS-3; MAN M3477, M3271-1; Renault RXD, RLD/RLD-2, RGD; Mack E0-N; Scania Low Ash; - Exceeds MTU 3.1; CAT ECF-1-A; DAF XF; JASO DH-2; Deutz DQC III-10-LA, DQC-IV-10-LA [15W-40] - API CJ-4; ACEA E9/E7 - Approved: MB 228.31; Volvo VDS-4; MAN M3575; Renault RLD-3;

GENERAL CHARACTERISTICS

- Exceeds CAT ECF-3; MTU 2.1

· Maximum wear protection

· Enhanced power

· Fuel efficiency

Cummins CES 20081; Mack EO-O Premium Plus; DDC 93K218

Low emissions (DPF, SCR)

· Ultimate protection against corrosion, deposits and soot

· Longer drain interval and superior oil consumption control

DESCRIPTION

ZIC X9000 is a fully synthetic heavy-duty diesel engine oil engineered to provide maximum protection to engines for on and off-highway applications with enhanced power. ZIC X9000 is recommended for both conventional heavy-duty diesel engines and modern heavy-duty diesel engines which have after treatment devices such as DPF (Diesel Particulate Filter) or SCR (Selective Catalytic Reduction). ZIC X9000 also meets and exceeds the toughest standards of European, Japanese, U.S., and Korean car manufacturers.

RECOMMENDATIONS

· Recommended for Diesel engines (with or without DPF/SCR)

TYPICAL PROPERTIES

SAE Grade	10W-40	15W-40
Density, g/cm³	0.8653	0.8610
Kinematic Viscosity at 40°C, cSt	92.67	107.8
Kinematic Viscosity at 100°C, cSt	14.16	15.33
Viscosity Index	157	149
Total Base Number (TBN), mgKOH/g	12.21	9.12
Flash Point, °C	220	230
Pour Point, °C	-36	-36
CCS, cP	6,500(-25°C)	4,300 (-20°C)
MRV, cP	23,000(-30°C)	17,000 (-25°C)



- Outstanding wear protection
- · Enhanced power

· Fuel efficiency

- · Low emissions (DPF, SCR)
- \cdot Excellent protection against corrosion, deposits and soot
- · Longer drain interval and superior oil consumption control
- · Also carries an API gasoline approval for use where gasoline engine oil is required

DESCRIPTION

ZIC X7000 is a fully synthetic heavy-duty diesel engine oil engineered to provide outstanding protection to engines for on and off-highway applications with enhanced power. ZIC X7000 has a high viscosity index that provides longer drain intervals and better engine protection. Better cold temperature fluidity during engine start-up also increases fuel efficiency.

RECOMMENDATIONS

· Recommended for Diesel and Gasoline engines

TYPICAL PROPERTIES

SAE Grade	15W-40	10W-40
Density, g/cm³	0.8649	0.8578
Kinematic Viscosity at 40°C, cSt	103.5	98.81
Kinematic Viscosity at 100°C, cSt	14.26	15.04
Viscosity Index	148	158
Total Base Number (TBN), mgK0H/g	9.55	9.91
Flash Point, °C	225	225
Pour Point, °C	-33	-36
CCS, cP	4,000 (-20°C)	5,600 (-25°C)
MRV, cP	20,000 (-25°C)	21,000 (-30°C)



GENERAL CHARACTERISTICS

- · Outstanding wear protection
- · Excellent protection against corrosion, deposits and soot
- · Longer drain interval

DESCRIPTION

ZIC X5000 is a high quality, heavy-duty diesel and gasoline engine oil that is engineered to provide outstanding protection to engines for on and off-highway applications. ZIC X5000 is recommended for use in heavy-duty applications and operating environments found in trucking, construction and agricultural industries. ZIC X5000 is recommended for heavy-duty diesel engines including turbocharged common rail direct injection (CRDI) engines. It also provides excellent protection for gasoline engines.

RECOMMENDATIONS

· Recommended for Diesel and Gasoline engines

TYPICAL PROPERTIES

SAE Grade	15W-40	10W-30
Density, g/cm³	0.8653	0.8620
Kinematic Viscosity at 40°C, cSt	104.8	72.15
Kinematic Viscosity at 100°C, cSt	14.85	10.90
Viscosity Index	148	140
Total Base Number (TBN), mgK0H/g	9.75	9.74
Flash Point, °C	225	220
Pour Point, °C	-33	-33
CCS, cP	4,100 (-20°C)	6,200 (-25°C)
MRV, cP	20,000 (-25°C)	23,000 (-30°C)



- · Excellent wear protection
- \cdot Excellent protection against corrosion, deposits and soot

DESCRIPTION

ZIC X3000 is a high quality, heavy-duty diesel engine oil that is engineered to provide good protection to engines for on and off-highway applications. ZIC X3000 is recommended for use in heavy-duty applications and operating environments found in trucking, construction and agricultural industries. ZIC X3000 is designed to address the needs of older vehicles where good value for performance remains a key driver for end users.

RECOMMENDATIONS

· Recommended for Diesel engines

TYPICAL PROPERTIES

SAE Grade	15W-40	20W-50	40	50
Density, g/cm³	0.8650	0.8746	0.8777	0.8821
Kinematic Viscosity at 40°C, cSt	103.4	150.5	109.6	186.5
Kinematic Viscosity at 100°C, cSt	14.49	17.81	13.86	18.16
Viscosity Index	144	131	109	108
Total Base Number (TBN), mgKOH/g	10.27	10.41	10.76	6.49
Flash Point, °C	230	240	250	250
Pour Point, °C	-33	-33	-33	-30
CCS, cP	4,200 (-20°C)	5,200 (-15°C)	-	-
MRV, cP	16,000 (-25°C)	17,000 (-20°C)	-	-



GENERAL CHARACTERISTICS

- · Excellent oxidation stability for long and consistent transmission performance
- · Effective foam control provides consistent shifting performance

DESCRIPTION

ZIC ATF 3 is a universal automatic transmission fluid where Dexron®-III specifications are indicated. It provides outstanding performance including smoother, consistent all weather shifting and all-around lubrication protection of critical transmission components.

RECOMMENDATIONS

· Recommended for automatic transmissions

TYPICAL PROPERTIES

Product Name	ATF 3
Color	RED
Density, g/cm³	0.8493
Kinematic, Viscosity, cSt, 40°cC	38.25
Kinematic, Viscosity, cSt, 100°C	7.335
Viscosity Index	160
TAN, mgK0H/g	0.96
Flash Point, °C	220
Pour Point, °C	-45
Brookfield Viscosity, cP,- 40°C	18,500



- · Exceeds the requirements of General Motor's DEXRON®-VI specification
- · Provides consistent shift performance for new and old GM transmissions
- · Provides excellent oxidative stability under severe driving conditions

DESCRIPTION

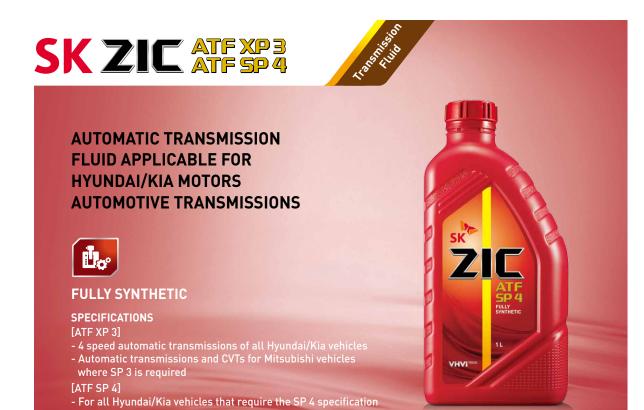
ZIC ATF DEXRON 6 exceeds the requirements of General Motor's DEXRON®-VI specification. It is engineered for longer drain intervals and consistent shift performance. ZIC ATF DEXRON 6 prevents fluid breakdown at higher operating temperature and provides excellent oxidative stability under severe driving conditions.

RECOMMENDATIONS

 Recommended for GM automatic transmissions where DEXRON®-III and DEXRON®-II

TYPICAL PROPERTIES

Product Name	ATF DEXRON 6
Color	RED
Density, g/cm³	0.8496
Kinematic Viscosity at 40°C, cSt	30.76
Kinematic Viscosity at 100°C, cSt	6.166
Viscosity Index	154
Flash Point, °C	210
Water, vol %	0.02
Brookfield Viscosity, cP, -20°C	1,100
Brookfield Viscosity, cP, -30°C	2,900
Brookfield Viscosity, cP, -40°C	11,000



GENERAL CHARACTERISTICS

- · Excellent lubrication for quiet operation and smooth shifting
- \cdot Provides improved anti-wear protection and consistent shift performance
- · Supports flawless upshifting and downshifting
- · Extends transmission fluids life and provides excellent fuel economy features

DESCRIPTION

ZIC ATF XP 3 is a high-performance ATF which exceeds the original equipment manufacturer's specifications for Hyundai/Kia SP III. It is engineered to be used in slip-controlled lock-up automatic transmissions.

ZIC ATF SP 4 is the only genuine factory-fill or service-fill ATF that meets the requirements for Hyundai/Kia vehicles' 6-speed automatic transmission. It is engineered for consistent shift performance and flawless upshifting and downshifting.

RECOMMENDATIONS

· Recommended for automatic transmissions

TYPICAL PROPERTIES

Product Name	ATF XP 3	ATF SP 4
Color	RED	RED
Density, g/cm³	0.8486	0.8524
Kinematic Viscosity at 40°C, cSt	35.57	25.75
Kinematic Viscosity at 100°C, cSt	7.466	5.411
Viscosity Index	184	151
TAN, mgKOH/g	1.52	2.09
TBN, mgK0H/g	3.04	5.23
Flash Point, °C	200	200
Pour Point, °C	-48	-48
Brookfield Viscosity, cP, - 40°C	11,000	8,800



PREMIUM AUTOMATIC
TRANSMISSION FLUID
FOR VARIOUS 4-8 SPEED
AUTOMOTIVE TRANSMISSIONS



FULLY SYNTHETIC

SPECIFICATIONS

- Meets or exceeds HYUNDAI/KIA SP-II/III/IV/IV-RR, Red-1/1K, M-1375.4, NWS-9638; GM Dexron II/III/VI; FORD Mercon, Mercon V/LV; MB 236.1/2/3/5/6/7/9/10/11/12/14/15/41/81; BMW 7045E, 8072B, LA2634, LT71141, 83 22 0 142 516, 83 22 2 152 426; VW/AUDI G 052 162/540/990, G 055 005/025/162, G 060 162; RENAULT DP-0; PSA AL-4; SAAB 93 165 147; TOYOTA/LEXUS T, T-II/III/IV/WS (JWS 3324); HONDA/ACURA ATF Z-1, DW-1; NISSAN/INFINITI Matic-D/J/K/S/W; PORSCHE T-IV (JWS 3309); ALLISON C-3/4, TES-295/389/389B; AISIN AW-1; JASO 1-A, 1-A-LV



GENERAL CHARACTERISTICS

- · Excellent oxidation stability for long and consistent transmission performance
- · Exceeds car manufacturer's requirements and provides a comfortable drive

DESCRIPTION

ZIC ATF MULTI is a transmission fluid designed for use in 4-8 speed automatic transmission systems in a wide range of vehicles. It provides optimal friction performance that improves fuel economy and quarantees a comfortable driving.

RECOMMENDATIONS

· Recommended for 4-8 speed automatic transmissions

TYPICAL PROPERTIES

Product Name	ATF MULTI
Density, g/cm³	0.8479
Kinematic Viscosity at 40°C, cSt	38.6
Kinematic Viscosity at 100°C, cSt	7.38
Viscosity Index	160
TAN, mgK0H/g	2.2
Flash Point, °C	210
Pour Point, °C	L-50
Brookfield Viscosity, cP 40°C	16,500

SK ZIC CVTF MULTI





SPECIFICATIONS

- Meet or exceeds MB 236.20(CVT 28); BMW/Mini EZL 799(8322 0 136 376), EZL 799A(8322 0 429 154), ZF CVT V1; VW/Audi TL 52180, G 052 180/516; Renault Elfmatic(NS-2); GM/Saturn/Opel DEX-CVT, CVTF I-Green2; Ford/Mercury Mercon C, CVTF 30, CVT 23; Chrysler/Dodge/Jeep CVTF +4, NS-2, MOPAR CVT 4; Hyundai/Kia SP-3, SP-CVT 1; Toyota/Lexus CVTF TC/FE; Honda HMMF, HCF-2; Nissan NS-1/2/3; Mitsubishi Diaqueen J1/J4, SP-3; Mazda CVT 3320; Daihatsu Amix CVTF-DFE, CVTF-DC; Subaru CVTF NS-2, Linertronic CVTF, CV-30, K0425Y0710, i-CVTF, e-CVTF; Suzuki CVTF Green 1/2, TC, NS-2, 3320; Shell Green 1V



GENERAL CHARACTERISTICS

- · Provides optimal friction performance increasing fuel economy
- · Exceeds car manufacturer's requirements and provides a comfortable drive

DESCRIPTION

ZIC CVTF MULTI is a transmission fluid designed for use in chain and belt driven continuously variable transmission systems in a wide range of vehicles. It provides optimal friction performance that improves fuel economy. ZIC CVTF Multi allows smooth transmission shifts, providing a comfortable drive.

RECOMMENDATIONS

 $\cdot \ Recommended \ for \ continuously \ variable \ transmission$

TYPICAL PROPERTIES

Product Name	CVTF Multi
Density, g/cm³	0.8535
Kinematic Viscosity at 40°C, cSt	31.75
Kinematic Viscosity at 100°C, cSt	6.857
Viscosity Index	181
TAN, mgKOH/g	1.75
TBN, mgK0H/g	5.75
Flash Point, °C	200
Pour Point, °C	-49
Brookfield Viscosity, cP, - 40°C	11,000



- · Provide higher anti-oxidation, anti-rust and anti-wear performance
- · Designed for highway and off-road vehicles

DESCRIPTION

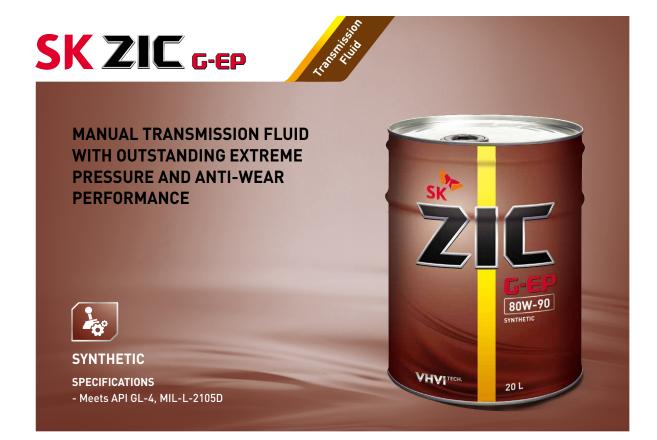
ZIC G-5 is a premium manual transmission fluid. This product is designed to meet the highest level of performance required for modern passenger vehicles. ZIC G-5 provides outstanding power transfer performance as well as protection against thermal and oxidative degradation.

RECOMMENDATIONS

· Recommended for manual transmission

TYPICAL PROPERTIES

SAE Grade	80W-90	85W-140
Density, g/cm³	0.8779	0.8959
Kinematic Viscosity at 40°C, cSt	140.6	324.6
Kinematic Viscosity at 100°C, cSt	14.78	25.14
Viscosity Index	105	100
TAN, mgK0H/g	1.00	0.98
Flash Point, °C	220	220
Pour Point, °C	-36	-18
Brookfield Viscosity, cP, -12°C	-	26,000
Brookfield Viscosity, cP, -26°C	50,000	-



GENERAL CHARACTERISTICS

- · Outstanding anti-oxidation and extreme pressure performance
- · Provides smooth shift performance

DESCRIPTION

ZIC GEAR EP is a premium, multi-purpose, automotive gear lubricant designed for extreme pressure performance under severe conditions. With its excellent cold temperature performance, ZIC GEAR EP provides all year round gear protection whilst also providing smoother shift performance. ZIC GEAR EP is formulated with SK's VHVI Technology and carefully selected advanced additive systems.

RECOMMENDATIONS

· Recommended for manual transmission, rear axle gear boxes

TYPICAL PROPERTIES

SAE Grade	80W-90	90
Density, g/cm³	0.8754	0.8749
Kinematic Viscosity at 40°C, cSt	145.7	145.9
Kinematic Viscosity at 100°C, cSt	15.08	15.08
Viscosity Index	104	104
TAN, mgK0H/g	0.45	0.42
Flash Point, °C	240	240
Pour Point, °C	-36	-36
Brookfield Viscosity, cP, -12°C	-	-
Brookfield Viscosity, cP, -26°C	55,000	55,000
Brookfield Viscosity, cP, -40°C	8,800	-



· Recommended for use in front wheel drive vehicles requiring API GL-4 performance

DESCRIPTION

ZIC G-FF 75W-85 is a manual transmission fluid specially designed for front wheel drive vehicles. It is a versatile product which provides exceptional anti-wear, anti-oxidancy, rust and corrosion protection. ZIC G-FF 75W-85 provides excellent protection at high operating temperatures.

RECOMMENDATIONS

· Recommended for manual transmission of modern front wheel drive vehicles

TYPICAL PROPERTIES

SAE Grade	75W-85
Density, g/cm³	0.8581
Kinematic Viscosity at 40°C, cSt	65.17
Kinematic Viscosity at 100°C, cSt	11.83
Viscosity Index	179
TAN, mgK0H/g	0.87
Flash Point, °C	220
Pour Point, °C	-42
Brookfield Viscosity, cP, -40°C	59,000



GENERAL CHARACTERISTICS

- · Outstanding anti-wear properties and equipment protection
- · High viscosity index combined with low pour point
- · Excellent viscosity characteristics over a wide temperature range

DESCRIPTION

ZIC SUPERVIS AW Series products are made of carefully selected high quality base oil combined with advanced additives to provide outstanding anti-wear properties, rust protection, low deposit formation, and good demulsibility as well as oxidation resistance.

RECOMMENDATIONS

Recommended for both factory equipment (machine applications) and mobile equipment (exterior use)

TYPICAL PROPERTIES

ISO VG	32	46	68	100	150
ASTM Color	L0.5	L0.5	L0.5	L1.0	L2.0
Density, g/cm³	0.845	0.852	0.862	0.873	0.882
Kinematic Viscosity at 40°C, cSt	32.72	45.89	66.86	95.22	158.2
Kinematic Viscosity at 100°C, cSt	6.026	7.457	9.319	11.27	15.
Viscosity Index	132	127	117	104	100
TAN, mgKOH/g	0.26	0.44	0.22	0.27	0.37
Flash Point, °C	230	240	250	240	260
Pour Point, °C	-36	-33	-33	-33	-27
Demulsion Time, min	10	10	10	10	10
Copper Corrosion, 100°C/3hr	1-a	1-a	1-a	1-a	1-a
Rust Prevention, sea water	Pass	Pass	Pass	Pass	Pass



- · Excellent oxidation stability and great low temperature performance
- · High viscosity index combined with low pour point

DESCRIPTION

ZIC VEGA Series products are high quality hydraulic oils providing anti-wear performance coupled with excellent oxidation stability. They have great low temperature performance using SK's VHVI Technology, and maintain their viscosity under high temperatures.

RECOMMENDATIONS

Recommended for industrial applications in which the oil is re-circulated or reused for extensive period

TYPICAL PROPERTIES

ISO VG	32	46	68
ASTM Color	L0.5	L0.5	L0.5
Density	0.848	0.853	0.862
Kinematic Viscosity at 40°C, cSt	32.49	45.88	66.99
Kinematic Viscosity at 100°C, cSt	5.940	7.465	9.352
Viscosity Index	129	127	116
TAN, mgKOH/g	0.27	0.49	0.23
Flash Point, °C	230	240	250
Pour Point, °C	-36	-33	-33
Demulsion Time, min	10	10	10
Copper Corrosion, 100°C/3hr	1-a	1-a	1-a
Rust Prevention, sea water	Pass	Pass	Pass



GENERAL CHARACTERISTICS

· Excellent oxidation stability

· Good water resistance and long service life

DESCRIPTION

ZIC ROYAL GREASE is a multi-purpose lithium soap-thickened grease available in NLGI grades 0, 1, 2, and 3 formulated with high quality base oils. It also contains

additives to control oxidation and rust formation.

ZIC ROYAL GREASE can be used in a wide range of industrial and automotive applications where there is no requirement for load-carrying properties.

RECOMMENDATIONS

- · Lubricating bearings in electric motors generators, pumps, compressors and
- · Recommended for most industrial grease applications

TYPICAL PROPERTIES

NLGI Grade		0	1	2	3
Penetration	0W 0.1mm 60W 0.1mm 100000W 0.1mm	372 365 368	320 315 365	279 272 338	244 235 315
Color-GR		Amber	Amber	Amber	Amber
Copper Corrosion, 100°C/24hr		No Corrosion	No Corrosion	No Corrosion	No Corrosion
Evaporation 99°C wt%		0.25	0.28	0.2	0.18
Oxidation Stability 100h kg/cm		0.23	0.24	0.2	0.25
Dropping Point, °C		210	205	215	210
Oil Separation	100°C % 130°C %	-	5.5 7.0	2.4 3.8	1.8 2.6



- · Lithium soap-thickened grease with excellent heat resistance
- · Excellent water resistance

DESCRIPTION

Manufactured with carefully selected high quality base oils in combination with special advanced additive systems.

RECOMMENDATIONS

- · Suitable for a wide range of industrial uses
- · Recommended for most industrial grease applications

TYPICAL PROPERTIES

NLGI Grade		0	1	2	3
Penetration	0W 0.1mm 60W 0.1mm 100000W 0.1mm	367 363 378	320 318 363	278 274 309	242 236 319
Color-GR		Amber	Amber	Amber	Amber
Copper Corrosion, 100°C/24hr		No Corrosion	No Corrosion	No Corrosion	No Corrosion
Evaporation 99°C wt%		0.2	0.3	0.24	0.2
Oxidation Stability 100h kg/cm		0.23	0.25	0.2	0.24
Dropping Point, °	С	210	210	210	210
Moisture Class		Α	Α	Α	Α
Oil Separation	100°C % 130°C %	-	5.8 10.2	2.8 4.5	2.1 1.1



GENERAL CHARACTERISTICS

- · Excellent resistance to heat to avoid excessive softening or hardening
- · Good adhesion that stays in place and seals out contaminants
- \cdot Good oxidation stability and resistance to water-washout

DESCRIPTION

CROWN WHEEL BEARING GREASE is a premium-grade lithium complex grease, designed to exceed general multipurpose-grease requirements and high

temperature service associated with vehicle wheel bearings.

RECOMMENDATIONS

- · Bus, truck and construction equipment wheel bearings
- \cdot Lubricating farm machinery parts and various other commercial vehicles
- · Bearings and mechanical parts

TYPICAL PROPERTIES

NLGI	Grade		
9W 0.1mm Penetration 60W 0.1mm 100000W 0.1mm		270 272 332	237 240 312
Color-GR		Yellow	Yellow
Copper Corrosion, 100°C/24hr		No Corrosion	No Corrosion
Evaporation 99°C wt%	6	0.13	0.12
10μm 25μm 75μm 125μm		400 100 0 0	500 100 0 0
Oxidation Stability 100h kg/cm ³		0.2	0.14
Dropping Point, °C		321	321
Oil Separation 100°C %		1.2	0.8



- · Delivers excellent wear protection
- · Helps to extend gear life

DESCRIPTION

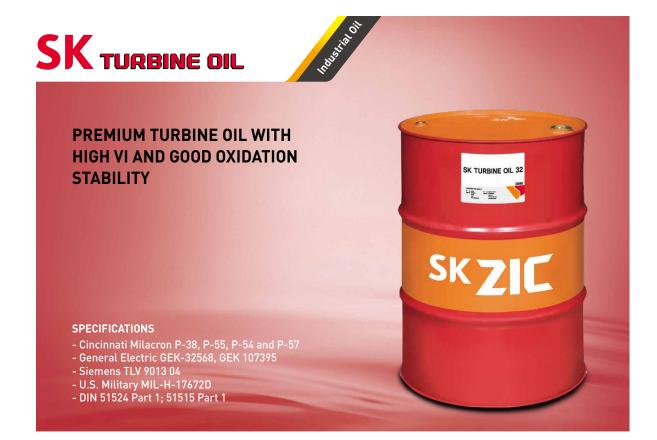
SK SUPER GEAR EP is the latest formulation using advanced extreme pressure additives and the highest quality anti-wear additives. It exceeds the requirements of major equipment manufacturers' standards such as US Steel, David Brown, Din and Cincinnati Machine. SK SUPER GEAR EP provides excellent oxidation stability and demulsibility.

RECOMMENDATIONS

· Recommended for high load gear equipment used in high temperature conditions

TYPICAL PROPERTIES

ISO VG	68	100	150	220	320	460	680
ASTM Color	L1.0	L1.0	L1.5	L2.0	L2.0	L2.5	L2.5
Density, g/cm³	0.873	0.888	0.886	0.891	0.895	0.903	0.903
Kinematic Viscosity at 40°C, cSt	65.28	96.13	147.8	214.9	312.4	455.1	636.5
Kinematic Viscosity at 100°c, cSt	8.982	11.04	15.07	19.38	24.85	31.65	39.57
Viscosity Index	112	100	102	102	102	100	100
Flash Point, °C	230	230	240	250	250	250	280
Pour Point, °C	-30	-27	-30	-24	-15	-12	-12
Demulsion Time, min	10	10	10	12	12	18	22
Copper Corrosion, 100°C/3hr	1-a						
Rust Prevention, sea water	Pass						



GENERAL CHARACTERISTICS

- · High load-carrying ability
- Oxidation stability and long service life
 Protection against rust
- Good resistance to foamingExceptional demulsibility
- · Very high viscosity index

DESCRIPTION

SK TURBINE OIL is a premium turbine oil with a high viscosity index and good oxidation stability. The superior quality of this oil is further improved by selected additives that ensure maximum service life. Good demulsification properties and resistance to rust and foaming meet all demands for turbine applications.

RECOMMENDATIONS

· Recommended for geared turbine propulsion units, thrust bearings, ring oiled journal bearings and various auxiliary machinery such as turbo chargers, pumps, governors etc.

TYPICAL PROPERTIES

ISO VG	32	46	68	100
ASTM Color	L0.5	L0.5	L0.5	L1.0
Density, g/cm³	0.845	0.852	0.866	0.886
Kinematic Viscosity at 40°C, cSt	32.91	45.36	64.21	103.5
Kinematic Viscosity at 100°C, cSt	6.041	7.391	8.99	11.52
Viscosity Index	130	126	114	100
TAN, mgK0H/g	0.09	0.09	0.1	0.24
Flash Point, °c	240	240	250	260
Pour Point, °c	-15	-18	-18	-12
Demulsion time, min	10	10	10	10
Copper Corrosion, 100°C/3hr	1-a	1-a	1-a	1-a
Rust Prevention, sea water	Pass	Pass	Pass	Pass
TOST mg KOH/g	0.07	0.07	0.07	0.06



- · Excellent anti-wear characteristics
- · Superior cylinder cleanliness with minimized piston deposits
- · Reduced maintenance needs

DESCRIPTION

SUPERMAR CYL series products are formulated with high quality base oils and high performance additive systems. SK SUPERMAR CYL series products provide excellent protection against wear, reduced piston deposits and superior overall cylinder cleanliness for those applications for which they are intended. It is designed for engines operating on all the industrial fuels as defined in current international marine fuels quality standards and quidelines.

RECOMMENDATIONS

· Recommended for maximum high pressure and high stroke to bore ratio engines

TYPICAL PROPERTIES

SK SUPERMAR CYL	CYL 40	CYL 70 PLUS
SAE Grade	50	50
Total Base Number(TBN), mgK0H/g	40	70
Density, g/cm ³	0.93	0.92
Kinematic Viscosity at 40°C, cSt	250.5	222
Kinematic Viscosity at 100°C, cSt	214	20.6
Viscosity Index	102	108
Flash Point, °C	260	260
Pour Point, °C	-17.5	-15.0



GENERAL CHARACTERISTICS

- · Longer oil service life
- · Superior alkalinity (Total Base Number) retention
- · Excellent water shedding and readily cleaned by centrifuging

DESCRIPTION

SK SUPERMAR TP series products are range of engine oils developed for use in medium speed diesel engines in marine vessel and power generation applications. Engineered using high quality base oils, SK SUPERMAR TP series outperforms other trunk piston diesel engine oils found in the market by incorporating a unique formulation of additive technology.

RECOMMENDATIONS

 \cdot Recommended for medium speed diesel engines in marine vessels and power generation applications

TYPICAL PROPERTIES

SK SUPERMAR TP	13TP		24TP		30TP		40TP		50TP
SK SUPERMAR IF	30	40	30	40	30	40	30	40	40
SAE Grade	30	40	30	40	30	40	30	40	40
Total Base Number (TBN)mgKOH/g	13	13	24	24	30	30	40	40	50
Density, g/cm³	0.893	0.897	0.896	0.904	0.898	0.907	0.902	0.903	0.916
Kinematic Viscosity at 40°C, cSt	103	142	99	140	99	138	95.3	136	140
Kinematic Viscosity at 100°C, cSt	11.9	14.5	11.9	14.5	11.9	14.5	11.9	14.5	14.6
Viscosity Index	105	99	107	102	110	104	116	106	102
Flash Point, °c	255	260	255	260	255	260	250	255	255
Pour Point, °c	-18	-15	-18	-15	-18	-15	-18	-15	-15



PREMIUM LUBRICANT FOR TWO-STROKE OUTBOARD ENGINES

SPECIFICATIONS

- National Marine Manufacturers Association (NMMA),
- TC-W3 (approval No.R-50931) approved
 Exceeds the requirements of Mercury, OMC,
 Johnson, Evinrude, Yamaha, Suzuki and other leading
 manufacturers' where NMMA, TC-W3 is specified



GENERAL CHARACTERISTICS

· ZIC MARINE 2T minimizes wear, helps prevent combustion chamber deposits,

ring sticking, piston burning, port blocking and spark plug fouling

DESCRIPTION

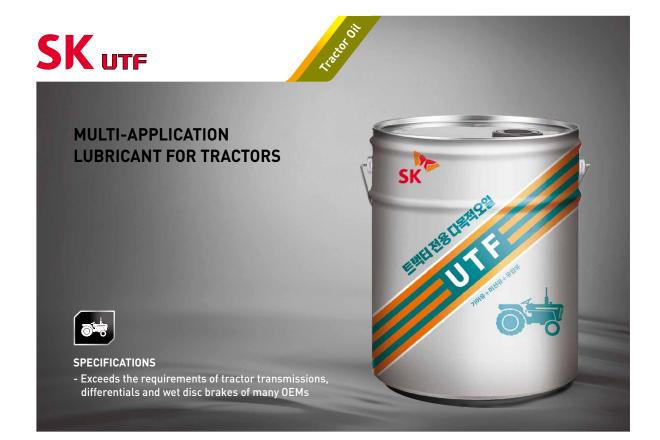
ZIC MARINE 2T is a superior quality two-cycle lubricant specifically designed for water-cooled, high-revving engines with pre-mix injection systems. Premium base stocks are blended with a modern ashless detergent additive package to provide fortification for maximum performance in outboard engines.

RECOMMENDATIONS

· Recommended for water-cooled, high-revving engines with pre-mix injection systems

TYPICAL PROPERTIES

Product Name	MARINE 2T
Color	BLUE
Total Base Number (TBN), mgK0H/g	9.87
Sulfated Ash, wt%	0.02
Density, g/cm³	0.865
Kinematic Viscosity at 40°C, cSt	44.36
Kinematic Viscosity at 100°C, cSt	8.095
Viscosity Index	155
Flash Point, °C	120
Pour Point, °C	-45



GENERAL CHARACTERISTICS

- · SK UTF is manufactured with quality base oils and advanced additives
- · SK UTF ensures maximum equipment protection by minimal changes in viscosity during high temperature operation

DESCRIPTION

SK UTF (Universal Tractor Fluid) is a multi application lubricant used to lubricate the moving parts of off-highway mobile equipment. These fluids are used to lubricate the transmissions, differentials, final drive planetary gears, wet brakes and hydraulic systems of farm tractors that have a common fluid reservoir calling for a combination lubricant and power transmission fluid.

RECOMMENDATIONS

· Recommended for farm tractors that have a common fluid reservoir

TYPICAL PROPERTIES

Product Name	UTF
Density 15°C, g/cm³	0.859
Kinematic Viscosity at 40°C, cSt	55.08
Kinematic Viscosity at 100°C, cSt	9.509
Viscosity Index	156
Flash Point, °C	240
Pour Point, °C	-36
Brookfield Viscosity at -18°C, cP	2,000
MRV at -25°C, cP	5,000



- · Carefully selected inhibitors provide anti-foam, anti-rust and anti-corrosion
- · ZIC SUPER A provides excellent cooling system protection under the most severe conditions when used as recommended
- · ZIC SUPER A is safe to use in systems containing aluminum components

DESCRIPTION

ZIC SUPER A is a high quality antifreeze (ethylene glycol based) long life coolant that provides outstanding performance in most applications. ZIC SUPER A helps to keep vehicle's engine temperature stable in all climates by transferring heat from the engine to the radiator. ZIC SUPER A is conveniently pre-diluted and mixed with a 50:50 or 45:55 ratio of water and antifreeze.

RECOMMENDATIONS

- · All vehicle types such as passenger car, heavy truck and bus
- \cdot High-speed and heavy-duty vehicles that require a high boiling point and load-bearing performance
- · Vehicles for adverse driving such as high-speed racing and mountainous terrain

TYPICAL PROPERTIES

Product Name	Super A 50	Super A 55
Color	Green	Green
Freezing Point, °c	-35	-45
pH	8.20	8.22
Specific Gravity, 15°c°C	1.078	1.081
Water content	50%	45%
Metal corrosion test	Pass	Pass



GENERAL CHARACTERISTICS

- · ZIC DOT maintains a higher boiling point than conventional brake fluids
- · ZIC DOT is engineered to provide maximum protection against vapor lock brake failure, even under extremely harsh conditions
- · ZIC DOT provides superior fluidity at low temperatures for optimum braking

DESCRIPTION

ZIC DOT is a non-petroleum based brake fluid used in the hydraulic brake system of vehicles. ZIC DOT is a high quality brake oil recommended for all U.S., Japanese, Korean and European vehicles with DOT 3 or DOT 4 requirements.

RECOMMENDATIONS

- \cdot All vehicle types such as passenger car, heavy truck and bus
- · High-speed and heavy-duty vehicles that requires a high boiling point and load-bearing performance
- $\cdot \ \ Vehicles \ for \ adverse \ driving \ such \ as \ high-speed \ racing \ and \ mountainous \ terrain$

TYPICAL PROPERTIES

Product Name	DOT 3	DOT 4
Boiling Point, °c	229	261
Wet Boiling Point, °c	147	165
Kinematic Viscosity at -40°C, cSt	1,331	1,090
Kinematic Viscosity at 100°C, cSt	2.23	2.35
h	9.18	8.35
Metal corrosion test	Pass	Pass

SK ZIC PRODUCT CHART

		SK	MOBIL		
	FLAGSHIP	ZIC TOP	Mobil 1™		
	TOP-TIER	ZIC X9	Super™3000		
PCM0	PREMIUM	ZIC X7	Super Sooo		
	REGULAR	ZIC X5	Super™2000		
	CLASSIC	ZIC X3	Super™1000		
	TOP-TIER	ZIC X9000	Delvac [™] MX		
HDDO	PREMIUM	ZIC X7000	Delvac™MX ESP		
ווווו	REGULAR	ZIC X5000	Delvac™SUPER 1300		
	CLASSIC	ZIC X3000	Delvac™SUPER		
	TOP-TIER	ZIC M9 4T	Mobil 1 Racing 4T™		
	PREMIUM	ZIC M7 4T	Extra 4T		
мсо	PREMIUM	ZIC M7 4AT	-		
MCU	REGULAR	ZIC M5 4T	Super™4T		
	PREMIUM	ZIC M7 2T	Mobil 1 Racing™ 2T		
	REGULAR	ZIC M5 2T	Super 2T		
		ZIC ATF 3	ATF™ D/M		
AUTOMAT	TC TC	ZIC ATF XP3	-		
TRANSMI	SSION FLUID	ZIC ATF SP 4	-		
		ZIC ATF DEXRON VI	DEXRON-VI ATF		
		ZIC GEAR 5	Mobilube™ HD Multigrade		
MANUAL	SSION FLUID	ZIC GEAR EP	-		
IMCVIANI	SSION FLUID	ZIC GEAR FF	Mobilube GX		
		ZIC SUPERVIS	DTE 10 Excel™Series		
HADDVIII	IC OII	ZIC SUPERVIS AW	DTE™20 Series		
HYDRAUL	IC UIL	ZIC VEGA EX	-		
		ZIC VEGA LX	-		
		CROWN GREASE	Mobilgrease™XTC		
GREASE		CROWN GREASE EP	-		
		ZIC ROYAL GREASE	-		
INDUSTRI	IAI OII	SK SUPERGEAR EP	SHC™Gear		
INDUSTRI	IAL UIL	SK TURBINE	DTE™700		

SHELL	CASTROL	CHEVRON	TOTAL
Helix Ultra	Edge	-	-
Helix HX8	Euge	Havoline Fully Synthetic	Quartz 9000
Helix HX7	Magnatec	Havoline Synthetic Blend	Quartz 7000
Helix HX5	GTX High Mileage		Quartz 5000
Helix HX3	GTX	Havoline Motor Oil	Quartz 3000
Rimula R6	Vecton CJ-4	Delo LE	Rubia TIR 7900
Rimula R4	Vecton CI-4	Delo 400 Multigrade / Delo Gold Ultra	Rubia TIR 7400
Rimula R3	Vecton CH-4	Delo Gold Multigrade	Rubia TIR 6400
Rimula R2	CRB	-	Rubia XT
Advance Ultra	Power1 Racing	-	-
Advance AX7	Power1 1 4T	Havoline Super 4T	Hi-Perf 4T Special/Racing/Sport
Advance 4T AX7 Scooter	Activ Scooter	Havoline SuperMatic 4T	Hi-Perf 4T Scooter
Advance AX5	Activ 4T	Havoline Ezy 4T	Hi-Perf 4T Super
Advance Ultra 2	Power 1 2T	-	Hi-Perf 2T Racing
Advance VSX 2	Activ 2T	Havoline Power 2T	Hi-Perf 2T Special
Spirax S3 ATF MD3	Dexron 3	Havoline Automatic Transmission Fluid MD-3	Fluidmatic MV
-	-	-	-
-	-	-	-
-	-	Havoline Synthetic ATF Multi- Vehicle DEXRON-VI	-
Spirax S3	Axle GL-5	Delo Syn-Gear XDM	Transmission TM
-	-	-	Transmission FA
Spirax S3 G	Manual GL-4	-	Transmission EP
Tellus S2 M	Hyspin	-	Azolla
Tellus S3 M	Hyspin AWS	Rando HD	Azolla ZS
Tellus S3 V	-	-	-
Tellus S4 VX	-	-	-
Gadus S2 V100	Spheeol	-	Multis
Gadus S2 V220	Spheeol EPL	Multifak EP	Multis EP
Gadus S2 V100	Spheeol	-	-
Omala S2 G	Alpha SP	Meropa Synthetic EP	Carter EP
Turbo T	Perfecto T	Regal R&O	Preslia

SK ZIC SUPPLY MAP

