KYOTO JAPAN LUBRICANTS

Kyoto Japan Lubricants

Technical Data Sheets

Date Issued: 20-12-2015	Supersedes: 01-01-2014	Revision Nr.:1

A Family of **Superior Lubricants & Additives**

PROFESSIONAL LUBRICANT
Made in E.U.
European Union

Kyoto Japan Tire (Suisse) S.A
1 Cour de Rive, 1207 Geneva - Switzerland
Tel +41.22. 789 32 00, Fax +41.21.826 11 76
Email sales@kyotojap.com

Kyoto Japan Tire Corporation Ltd.
Tokyo - Japan
www.kyotojap.com

Kyoto Japan Warm-UP SAE 10W60

Product Code:
KJL1101

Kyoto Japan Warm-UP SAE 10w60 is a high performance fully synthetic motor oil of exceptional quality, delivering extreme performance in gasoline-, diesel- and LPG fuelled engines in passenger cars with or without turbocharger, working under severe temperature and load conditions.

Kyoto Japan Warm-UP SAE 10w60 is based on high quality 100% synthetic Poly Alpha Olefin (PAO) in combination with a unique additive package to ensure the following properties:

- Excellent thermal- and oxidation stability.
- Very good dispersant and detergent properties.
- Excellent cold temperature properties for a smooth cold start.
- Excellent protection against wear, corrosion and foam.
- Suited for extreme and severe conditions.

Kyoto Japan Warm-UP SAE 10w60 exceeds the following performance criteria:

API SL/CF ACEA A3/B4 MB 229.1 VW 502.00/505.00

Typical Analysis

Properties	Unit	Method	Typical Value
SAE Grade		SAE J300	10W-60
Density @15°C	kg/m^3	ASTM 4052	851
Kinematic Viscosity @ 40°C	mm^2/s	ASTM D7042	173
Kinematic Viscosity @ 100°C	mm^2/s	ASTM D7042	24
Viscosity Index		ASTM D2270	170
Viscosity CCS @ -25°C max	cP	ASTM D5293	7000
Flash Point COC	°C	ASTM D92	>201
Pour Point	°C	ASTM D97	-36
Total Base Number	mgKOH/g	ASTM D2896	11.4
Sulphated Ash	%Wt	ASTM D874	1.3

Date Issued: 20-12-2015	Supersedes:01-01-2014	Revision Nr.:1

Kyoto Japan Tire (Suisse) S.A
1 Cour de Rive, 1207 Geneva - Switzerland
Tel +41.22. 789 32 00, Fax +41.21.826 11 76
Email sales@kyotojap.com

Kyoto Japan Tire Corporation Ltd.
Tokyo - Japan
www.kyotojap.com

Kyoto Japan Perfecta SL SAE 0W-40

Product Code:
KJL1102

Kyoto Japan Perfecta SL SAE 0W-40 is a high performance fuel saving fully synthetic engine oil to be used in gasoline- and diesel engines of the latest generation passenger car and light vans with or without turbo compressor.

Kyoto Japan Perfecta SL SAE 0W-40 is based on high performance fully synthetic base oil in combination with a specially selected additive technology to ensure the following properties.

- Excellent thermal and oxidation stability.
- Fuel saving properties.
- Excellent protection against wear, foam en corrosion.
- High viscosity index in a wide range of ambient conditions.
- Low temperature properties, to ensure a smooth cold start.

Kyoto Japan Perfecta SL SAE 0W-40 exceed the following performance criteria;

ACEA A3/B4	API SN/CF	MB 229.3	VW 500.00/502.00
Porsche	BMW LL-01		

Typical Analysis

Property	Unit	Method	Typical Value
Density @15°C	kg/m^3	ASTM D4052	859
Kin. Viscosity @40°C	mm^2/s	ASTM D7042	77
Kin. Viscosity @100°C	mm^2/s	ASTM D7042	13.63
Viscosity Index		ASTM D2270	>175
Viscosity @-35°C	cP	ASTM D5293	6200
Flash Point COC	°C	ASTM D92	>201
Pour Point	°C	ASTM D97	-39
Total Base Number	mgKOH/g	ASTM D2896	7.7

Date Issued: 20-12-2015	Supersedes:01-01-2014 12-03-	Revision Nr. 1

Kyoto Japan Tire (Suisse) S.A
1 Cour de Rive, 1207 Geneva - Switzerland
Tel +41.22. 789 32 00, Fax +41.21.826 11 76
Email sales@kyotojap.com

Kyoto Japan Tire Corporation Ltd.
Tokyo - Japan
www.kyotojap.com

Kyoto Japan Perfecta GM SAE 5W-30

Product Code:
KJL1103

Kyoto Japan Perfecta GM SAE 5W-30 is a fuel conserving high performance MID SAPS engine oil based on 100% synthetic technology for gasoline- and diesel engines of passenger cars and light vans specially designed for the latest generation Opel/GM vehicles which require GM Dexos 2 and is backwards compatible to engines which require GM-LL-A-025/B-025 type engine oils.

Kyoto Japan Perfecta GM SAE 5W-30 is formulated with synthetic base oil in combination with a special selected additive package to ensure the following properties:

- Excellent thermal and oxidation stability.
- Excellent cold temperature properties for an easy cold start.
- Very good dispersant and detergent properties.
- Fuel saving properties due to low friction properties
- Very good antifoam, antiwear and anti-corrosion properties.
- MID SAPS technology, suitable for engines equipped with exhaust gas after treatment like DPF
- Long oil change interval possible.

Kyoto Japan Perfecta GM SAE 5W-30 exceeds the following performance criteria:

GM dexos 2	API SN/CF	ACEA A3/B4, C3	MB 229.51
BMW LL-04	VW 502.00/505.00	GM-LL-A025/B025	

Typical Analysis

Properties	Unit	Method	Typical Value
SAE Grade		SAE J3000	5W-30
Density @15°C	kg/m^3	ASTM D4052	854
Kin. Viscosity @40°C	mm^2/s	ASTM D7042	72
Kin. Viscosity @100°C	mm^2/s	ASTM D7042	12.1
Viscosity Index		ASTM D2270	165
Viscosity CCS @-30°, max.	cP	ASTM D5293	6600
Flash Point COC	°C	ASTM D92	>201
Pour Point	°C	ASTM D97	-36
Total Base Number	mgKOH/g	ASTM D2896	7.5
Sulphated Ash	%Wt	ASTM D874	0.80

Date Issued: 20-12-2015	Supersedes:01-01-2014	Revision Nr.:1

Kyoto Japan Tire (Suisse) S.A
1 Cour de Rive, 1207 Geneva - Switzerland
Tel +41.22. 789 32 00, Fax +41.21.826 11 76
Email sales@kyotojap.com

Kyoto Japan Tire Corporation Ltd.
Tokyo - Japan
www.kyotojap.com

Kyoto Japan Perfecta DPF SAE 5W-30

Product Code:
KJL1104

Kyoto Japan Perfecta DPF SAE 5W-30is a high performance fuel saving LOW SAPS long life oil based on 100% synthetic technology for use in gasoline- and diesel engines of passenger cars and light vans where a VAG norm 504.00/507.00 has been prescribed and also suitable for vehicles where MB 229.51 and BMW LL-04 are required.

Remark: not suitable for R5- en V10 TDI engines and engines where VAG norm VW 506.01 is being advised.

Kyoto Japan Perfecta DPF SAE 5W-30is formulated with high quality synthetic base stocks in combination with a unique additive technology to achieve the following performance:

- Very good low temperature properties.
- Protection to wear by cold start.
- Very high thermal- and oxidation stability.
- Excellent resistance against foaming, corrosion and wear.
- High dispersity and detergency level.
- High viscosity index.
- Extended oil drain interval.
- Also suitable for engines equipped with other catalyst like TWC.

Kyoto Japan Perfecta DPF SAE 5W-30exceeds the following performance criteria:

Exceeds	VW 504.00/507.00	MB-229.51	BMW LL-04
	ACEA C3	Porsche C30	

Typical Analysis

Properties	Unit	Method	Typical Value
SAE Grade		SAE J3000	5W-30
Density @15°C	kg/m^3	ASTM D4052	852
Kin. Viscosity @40°C	mm^2/s	ASTM D7042	73.7
Kin. Viscosity @100°C	mm^2/s	ASTM D7042	11.7
Viscosity Index		ASTM D2270	180
Viscosity CCS @-30°, max.	cP	ASTM D5293	6600
Flash Point COC	°C	ASTM D92	210
Pour Point	°C	ASTM D97	-42
Total Base Number	mgKOH/g	ASTM D2896	5.5
Sulphated Ash	%Wt	ASTM D874	0.7

Date Issued: 20-12-2015	Supersedes:01-01-2014	Revision Nr.:1

Kyoto Japan Tire (Suisse) S.A
1 Cour de Rive, 1207 Geneva - Switzerland
Tel +41.22. 789 32 00, Fax +41.21.826 11 76
Email sales@kyotojap.com

Kyoto Japan Tire Corporation Ltd.
Tokyo - Japan
www.kyotojap.com

Kyoto Japan Perfecta SRC 5W-40

Product Code:
KJL1105

Kyoto Japan Perfecta SRC 5W-40 is an universal high performance fuel saving oil based on 100% synthetic technology for use in gasoline- and diesel engines of passenger car and light vans with or without turbocharger. This product is unsuitable for diesel engines equipped with a Diesel Particle Filter (DPF).

Kyoto Japan Perfecta SRC 5W-40 is formulated with high quality synthetic base stocks in combination with a unique additive technology to achieve the following performance:

- Very good low temperature properties.
- Protection to wear by cold start.
- Very high thermal- and oxidation stability.
- Excellent resistance against foaming, corrosion and wear.
- High dispersity and detergency level.
- High viscosity index.

Kyoto Japan Perfecta SRC 5W-40 exceeds the following performance criteria:

Exceeds	MB-229.3	VW 502.00/505.00	BMW LL-01
	API SN/CF	ACEA A3/B4	GM-LL-B025
	PSA B71 2296	Porsche A40	Renault 0700/0710

Typical Analysis

Properties	Unit	Method	Typical Value
SAE Grade		SAE J3000	5W-40
Density @15°C	kg/m^3	ASTM D4052	851
Kin. Viscosity @40°C	mm^2/s	ASTM D7042	86
Kin. Viscosity @100°C	mm^2/s	ASTM D7042	14.1
Viscosity Index		ASTM D2270	155
Viscosity CCS @-30°, max.	cP	ASTM D5293	6600
Flash Point COC	°C	ASTM D92	210
Pour Point	°C	ASTM D97	-39
Total Base Number	mgKOH/g	ASTM D2896	9.6
Sulphated Ash	%Wt	ASTM D874	1.16

Date Issued: 20-12-2015	Supersedes:01-01-2014	Revision Nr.:1

Kyoto Japan Tire (Suisse) S.A
1 Cour de Rive, 1207 Geneva - Switzerland
Tel +41.22. 789 32 00, Fax +41.21.826 11 76
Email sales@kyotojap.com

Kyoto Japan Tire Corporation Ltd.
Tokyo - Japan
www.kyotojap.com

Kyoto Japan Hypersynthetic D HS 5W40

Product Code:
KJL1105DHS

Description :
An extreme modern, synthetic, universal motor oil based on special selected synthetic base oils with a high viscosity index and a well-balanced choice of advanced additives to obtain the following properties:
- a high and very stable viscosity index
- a high resistance against shearing
- a fast cold start
- a very strong resistance against oxidation
- a safe lubrication film at very high temperatures
- a very good detergency and dispersion
- a very strong protection against wear, corrosion and foaming

Application :
An universal, special composed synthetic motor oil recommended for use in petrol and diesel engines, with or without turbo-charging, in passenger cars and delivery vans for which the most modern specifications are required.

Performance Level :
ACEA A3/B4-12
API SN/CF
MB-Approval 229.3/229.5
Oil meeting PSA specification B71 2296
Meets the requirements of
BMW Longlife-01
VW 502.00/505.00/501.01
Porsche A40
Renault RN0700/RN0710
Opel GM-LL-B-025

Typicals :

Density at 15 °C, kg/l	:	0,856
Viscosity -30 °C, mPa.s	:	6320
Viscosity 40 °C, mm²/s	:	86,30
Viscosity 100 °C, mm²/s	:	14,00
Viscosity Index	:	167
Pour Point, °C	:	-45 Total
Base Number, mgKOH/g	:	10,1
Sulphate Ash, %	:	1,09

Kyoto Japan Tire (Suisse) S.A
1 Cour de Rive, 1207 Geneva - Switzerland
Tel +41.22. 789 32 00, Fax +41.21.826 11 76
Email sales@kyotojap.com

Kyoto Japan Tire Corporation Ltd.
Tokyo - Japan
www.kyotojap.com

Kyoto Japan Perfecta S SAE 10W-40

Product Code:
KJL1106

Kyoto Japan Perfecta S SAE 10W-40 is an universal high performance fuel saving semi synthetic oil for use in gasoline- and diesel engines of passenger car and light vans with or without turbocharger. This product is unsuitable for diesel engines equipped with a Diesel Particle Filter (DPF).

Kyoto Japan Perfecta S SAE 10W-40 is formulated with high quality refined mineral and synthetic base stocks in combination with a special additive technology to achieve the following performance:

- Very good low temperature properties.
- Protection to wear by cold start.
- Very high thermal- and oxidation stability.
- Excellent resistance against foaming, corrosion and wear.
- High dispersity and detergency level.
- High viscosity index.

Kyoto Japan Perfecta S SAE 10W-40 exceeds the following performance criteria:

Exceeds	MB-229.1	VW 501.01/505.00	
	ACEA A3/B4	API SL/CF	RN 0700

Typical Analysis

Properties	Unit	Method	Typical Value
SAE Grade		SAE J3000	10W-40
Density @15°C	kg/m^3	ASTM D4052	874
Kin. Viscosity @40°C	mm^2/s	ASTM D7042	97
Kin. Viscosity @100°C	mm^2/s	ASTM D7042	14.2
Viscosity Index		ASTM D2270	150
Viscosity CCS @-25°, max.	cP	ASTM D5293	6600
Flash Point COC, min	°C	ASTM D92	201
Pour Point	°C	ASTM D97	-39
Total Base Number	mgKOH/g	ASTM D2896	7.9
Sulphated Ash	%wt	ASTM D874	0.95

Date Issued: 20-12-2015	Supersedes:01-01-2014	Revision Nr.:1

Kyoto Japan Tire (Suisse) S.A
1 Cour de Rive, 1207 Geneva - Switzerland
Tel +41.22. 789 32 00, Fax +41.21.826 11 76
Email sales@kyotojap.com

Kyoto Japan Tire Corporation Ltd.
Tokyo - Japan
www.kyotojap.com

Kyoto Japan Perfecta MS 10W-40

Product Code:
KJL1106MS

Description :
This motor oil is based on high quality solvent refined mineral and synthetic base oils. By adding a well-balanced choice of additives the following properties are obtained:
- a high and stable viscosity index
- a fast cold start
- a strong resistance against oxidation
- a good detergency and dispersion
- a safe lubrication film at high temperatures
- a strong protection against wear, corrosion and foaming

Application :
This all-round motor oil is recommended for use in petrol- and diesel engines, with or without turbo-charging, in passenger cars and delivery vans.

Performance Level :
ACEA A3/B4-12
API SN/CF
Meets the requirements of
MB 229.1
Renault RN0700
VW 501.01/505.00

Typicals :

Density at 15 °C, kg/l	:	0,861
Viscosity -25 °C, mPa.s	:	5470
Viscosity 40 °C, mm²/s	:	91,60
Viscosity 100 °C, mm²/s	:	13,80
Viscosity Index	:	154
Flash Point COC, °C	:	224
Pour Point, °C	:	-39 Total
Base Number, mgKOH/g	:	10,2
Sulphate Ash, %	:	1,26

Kyoto Japan Tire (Suisse) S.A
1 Cour de Rive, 1207 Geneva - Switzerland
Tel +41.22. 789 32 00, Fax +41.21.826 11 76
Email sales@kyotojap.com

Kyoto Japan Tire Corporation Ltd.
Tokyo - Japan
www.kyotojap.com

Kyoto Japan Perfecta FE SAE 5W-30

Product Code:
KJL1107

Kyoto Japan Perfecta FE SAE 5W-30 is a high performance fuel conserving semi synthetic oil for gasoline- and diesel engines in passenger cars en light vans with or without turbocharger. This product is unsuitable for diesel engines equipped with a Diesel Particle Filter (DPF).

Kyoto Japan Perfecta FE SAE 5W-30 is formulated with high quality refined mineral and synthetic base stocks in combination with a special additive technology to achieve the following performance:

- Very good low temperature properties.
- Protection to wear by cold start.
- Very high thermal- and oxidation stability.
- Excellent resistance against foaming, corrosion and wear.
- High dispersity and detergency level.
- High viscosity index.
- Longer oil drain interval possible.

Kyoto Japan Perfecta FE SAE 5W-30 exceeds the following performance criteria:

ACEA A1/B1 API SL ILSAC GF-3 Ford M2C-913A/913B

Typical Analysis

Properties	Unit	Method	Typical Value
SAE Grade		SAE J3000	5W-30
Density @15°C	kg/m^3	ASTM D4052	856
Kin. Viscosity @40°C	mm^2/s	ASTM D7042	69
Kin. Viscosity @100°C	mm^2/s	ASTM D7042	11.6
Viscosity Index		ASTM D2270	175
Viscosity CCS @-30°, max.	cP	ASTM D5293	6600
Flash Point COC	°C	ASTM D92	210
Pour Point	°C	ASTM D97	-39
Total Base Number	mgKOH/g	ASTM D2896	8.8
Sulphated Ash	%Wt	ASTM D874	1.15

Date Issued: 20-12-2015	Supersedes:01-01-2014	Revision Nr.:1

Kyoto Japan Tire (Suisse) S.A
1 Cour de Rive, 1207 Geneva - Switzerland
Tel +41.22. 789 32 00, Fax +41.21.826 11 76
Email sales@kyotojap.com

Kyoto Japan Tire Corporation Ltd.
Tokyo - Japan
www.kyotojap.com

Kyoto Japan Perfecta LE SAE 5W-40

Product Code:
KJL1108

Kyoto Japan Perfecta LE SAE 5W-40 is a high performance fuel saving MID SAPS engine oil based on 100% synthetic technology for use in the latest generation gasoline and diesel engines of passenger car and light vans with or without turbocharger. **Motor Oil LE 5W-30** is developed for use in engine which are equipped with or without an exhaust gas after treatment system.

Kyoto Japan Perfecta LE SAE 5W-40 is based on high performance 100% synthetic base oil in combination with a specially selected additive technology to ensure the following properties:

- Good thermal and oxidation stability.
- MID SAPS technology.
- Good protection against wear, foam en corrosion.
- Low temperature properties, to ensure a smooth cold start.
- Equipped for diesel engines with an exhaust after treatment system.
- Fuel saving properties.

Kyoto Japan Perfecta LE SAE 5W-40 exceeds the following performance criteria:

Exceeds	MB-229.51	VW 502.00/505.00 & VW 505.01	
	BMW LL-04		
	ACEA C3	API SN/CF	Renault RN 0700/0710

Typical Analysis

Properties	Unit	Method	Typical Value
SAE Grade		SAE J300	5W-30
Density @15°C	kg/m^3	ASTM D4052	853
Kin. Viscosity @40°C	mm^2/s	ASTM D7042	70
Kin. Viscosity @100°C	mm^2/s	ASTM D7042	12.2
Viscosity Index		ASTM D2270	170
Viscosity CCS -30°C, max	cP	ASTM D5293	6600
Flash Point COC	°C	ASTM D92	>218
Pour Point	°C	ASTM D97	-36
Total Base Number	mgKOH/g	ASTM D2896	7.6
Sulphated Ash	%Wt	ASTM D874	0.8

Date Issued: 20-12-2015	Supersedes:01-01-2014	Revision Nr.:1

Kyoto Japan Tire (Suisse) S.A
1 Cour de Rive, 1207 Geneva - Switzerland
Tel +41.22. 789 32 00, Fax +41.21.826 11 76
Email sales@kyotojap.com

Kyoto Japan Tire Corporation Ltd.
Tokyo - Japan
www.kyotojap.com

Kyoto Japan Perfecta LE SAE 5W-30

Product Code:
KJL1109

Kyoto Japan Perfecta LE SAE 5W-30 is a high performance fuel saving MID SAPS engine oil based on 100% synthetic technology for use in the latest generation gasoline and diesel engines of passenger car and light vans with or without turbocharger. **Motor Oil LE 5W-40** is developed for use in engine which are equipped with or without an exhaust gas after treatment system.

Kyoto Japan Perfecta LE SAE 5W-30 is based on high performance 100% synthetic base oil in combination with a specially selected additive technology to ensure the following properties:

- Good thermal and oxidation stability.
- MID SAPS technology.
- Good protection against wear, foam en corrosion.
- Low temperature properties, to ensure a smooth cold start.
- Equipped for diesel engines with an exhaust after treatment system.
- Fuel saving properties.

Kyoto Japan Perfecta LE SAE 5W-30 exceeds the following performance criteria:

Exceeds	MB-229.51	VW 502.00/505.00 & VW 505.01	
	BMW LL-04		
	ACEA A3/B4, C3	API SN/CF	Renault RN 0700/0710

Typical Analysis

Properties	Unit	Method	Typical Value
SAE Grade		SAE J300	5W-40
Density @15°C	kg/m^3	ASTM D4052	854
Kin. Viscosity @40°C	mm^2/s	ASTM D7042	84.5
Kin. Viscosity @100°C	mm^2/s	ASTM D7042	14.4
Viscosity Index		ASTM D2270	172
Viscosity CCS -30°C, max	cP	ASTM D5293	6600
Flash Point COC	°C	ASTM D92	>218
Pour Point	°C	ASTM D97	-39
Total Base Number	mgKOH/g	ASTM D2896	7.6
Sulphated Ash	%Wt	ASTM D874	0.8

Date Issued: 20-12-2015	Supersedes:01-01-2014	Revision Nr.:1

Kyoto Japan Tire (Suisse) S.A
1 Cour de Rive, 1207 Geneva - Switzerland
Tel +41.22. 789 32 00, Fax +41.21.826 11 76
Email sales@kyotojap.com

Kyoto Japan Tire Corporation Ltd.
Tokyo - Japan
www.kyotojap.com

Kyoto Japan Perfecta XL SAE 15W-40

Product Code:
KJL1110

MOTOR OIL SF 15W-40 is a multi-functional mineral engine oil for older gasoline-, diesel- and LGP engines of passenger car and light vans with or without turbo compressor.

MOTOR OIL SF 15W-40 is formulated on high performance virgin base stocks in combination with selected additive package to reach the following properties:

- Stable viscosity index.
- Good protection against rust, corrosion and wear.
- Good dispergency and detergency properties.
- Good antifoam properties.

MOTOR OIL SF 15W-40 exceeds the following performance criteria:

API SF/CD

Typical Analysis

Properties	Unit	Test Method	Typical Value
SAE Grade		SAE J300	15W-40
Density @15°C	kg/m^3	ASTM D4052	881
Kin. Viscosity @40°C	mm^2/s	ASTM D4052	110
Kin. Viscosity @100°C	mm^2/s	ASTM D7042	14.2
Viscosity Index		ASTM D2270	130
Viscosity CCS -20°C, max.	cP	ASTM D5293	7000
Flash Point COC	°C	ASTM D92	>201
Pour Point	°C	ASTM D97	-36
Total Base Nummer	mgKOH/g	ASTM D2896	5.2

Date Issued: 20-12-2015	Supersedes:01-01-2014	Revision Nr.:1

Kyoto Japan Tire (Suisse) S.A
1 Cour de Rive, 1207 Geneva - Switzerland
Tel +41.22. 789 32 00, Fax +41.21.826 11 76
Email sales@kyotojap.com

Kyoto Japan Tire Corporation Ltd.
Tokyo - Japan
www.kyotojap.com

Kyoto Japan Perfecta S SAE 15W-40

Product Code:
KJL1111

Kyoto Japan Perfecta S SAE 15W-40 is a multi-functional mineral engine oil for older gasoline-, diesel- and LGP engines of passenger car and light vans with or without turbo compressor.

Kyoto Japan Perfecta S SAE 15W-40 is formulated on high performance virgin base stocks in combination with selected additive package to reach the following properties:

- Stable viscosity index.
- Good protection against rust, corrosion and wear.
- Good dispergency and detergency properties.
- Good antifoam properties.

Kyoto Japan Perfecta S SAE 15W-40 exceeds the following performance criteria:

API SF/CD

Typical Analysis

Properties	Unit	Test Method	Typical Value
SAE Grade		SAE J300	15W-40
Density @15°C	kg/m^3	ASTM D4052	881
Kin. Viscosity @40°C	mm^2/s	ASTM D4052	110
Kin. Viscosity @100°C	mm^2/s	ASTM D7042	14.2
Viscosity Index		ASTM D2270	130
Viscosity CCS -20°C, max.	cP	ASTM D5293	7000
Flash Point COC	°C	ASTM D92	>201
Pour Point	°C	ASTM D97	-36
Total Base Nummer	mgKOH/g	ASTM D2896	5.2

Date Issued: 20-12-2015	Supersedes:01-01-2014	Revision Nr.:1

Kyoto Japan Tire (Suisse) S.A
1 Cour de Rive, 1207 Geneva - Switzerland
Tel +41.22. 789 32 00, Fax +41.21.826 11 76
Email sales@kyotojap.com

Kyoto Japan Tire Corporation Ltd.
Tokyo - Japan
www.kyotojap.com

Kyoto Japan Perfecta FS SAE 5W-30

Product Code:
KJL1112

Kyoto Japan Perfecta FS SAE 5W-30 is a high performance fuel saving oil based on 100% synthetic technology for use in gasoline- and diesel engines of passenger car and light vans with or without turbocharger and designed for the last generation Ford vehicles and other vehicles where an ACEA A5/B5 is been required. This product is not to be used in diesel engines equipped with a Diesel Particle Filter (DPF).

Kyoto Japan Perfecta FS SAE 5W-30 is formulated with high quality synthetic base stocks in combination with a unique additive technology to achieve the following performance:

- Very good low temperature properties.
- Protection to wear by cold start.
- Very high thermal- and oxidation stability.
- Excellent resistance against foaming, corrosion and wear.
- High dispersity and detergency level.
- High viscosity index.
- Longer oil drain interval.

Kyoto Japan Perfecta FS SAE 5W-30 exceeds the following performance criteria:

ACEA A5/B5 ACEA A1/B1 API SN Renault 0700
Ford WSS M2C913C

Typical Analysis

Properties	Unit	Method	Typical Value
SAE Grade		SAE J3000	5W-30
Density @15°C	kg/m^3	ASTM D4052	853
Kin. Viscosity @40°C	mm^2/s	ASTM D7042	54.5
Kin. Viscosity @100°C	mm^2/s	ASTM D7042	9.9
Viscosity Index		ASTM D2270	170
Viscosity CCS @-30°, max.	cP	ASTM D5293	6600
Flash Point COC	°C	ASTM D92	210
Pour Point	°C	ASTM D97	-39
Total Base Number	mgKOH/g	ASTM D2896	9.0
Sulphated Ash	%Wt	ASTM D874	1.08

Date Issued: 20-12-2015	Supersedes:01-01-2014	Revision Nr.:1

Kyoto Japan Tire (Suisse) S.A
1 Cour de Rive, 1207 Geneva - Switzerland
Tel +41.22. 789 32 00, Fax +41.21.826 11 76
Email sales@kyotojap.com

Kyoto Japan Tire Corporation Ltd.
Tokyo - Japan
www.kyotojap.com

Kyoto Japan Perfecta C2 SAE 5W-30

Product Code:
KJL1113

Kyoto Japan Perfecta C2 SAE 5W-30 is a high performance fuel saving MID SAPS engine oil based on 100% synthetic technology to be used in gasoline- and diesel engines of the latest generation passenger cars and light vans where a PSA B71 2290 specification is required and suitable for all engines which require an ACEA A5/B5, C2 performance specification

Kyoto Japan Perfecta C2 SAE 5W-30 is based on high performance synthetic base oil in combination with a specially selected additive technology to ensure the following properties:

- Excellent thermal and oxidation stability.
- Fuel saving properties.
- Excellent protection against wear, foam en corrosion.
- Low temperature properties, to ensure a smooth cold start.
- Long oil drain interval possible.

Kyoto Japan Perfecta C2 SAE 5W-30 exceeds the following performance criteria:

API SN/CF	ACEA A1/B1	ACEA A5/B5	ACEA C2
PSA B71 2290	Renault 0700		

Typical Analysis

Properties	Unit	Method	Typical Value
SAE Grade		SAE J 300	5W-30
Density @15°C	kg/m^3	ASTM D4052	856
Kin. Viscosity @40°C	mm^2/s	ASTM D7042	70
Kin. Viscosity @100°C	mm^2/s	ASTM D7042	11.8
Viscosity Index		ASTM D2270	170
Viscosity CCS -30°C, max	cP	ASTM D5293	6600
Flash Point COC	°C	ASTM D92	>201
Pour Point	°C	ASTM D97	-39
Total Base Number	mgKOH/g	ASTM D2896	7.5
Sulphated Ash	%Wt	ASTM D874	0.79

Date Issued: 20-12-2015	Supersedes:01-01-2014	Revision Nr.:1

Kyoto Japan Tire (Suisse) S.A
1 Cour de Rive, 1207 Geneva - Switzerland
Tel +41.22. 789 32 00, Fax +41.21.826 11 76
Email sales@kyotojap.com

Kyoto Japan Tire Corporation Ltd.
Tokyo - Japan
www.kyotojap.com

Kyoto Japan Perfecta XL SAE 20W-50

Product Code:
KJL1114

Kyoto Japan Perfecta XL SAE 20W-50 is a multi-functional mineral engine oil for older gasoline-, diesel- and LGP engines of passenger car and light vans with or without turbo compressor.

Kyoto Japan Perfecta XL SAE 20W-50 is formulated on high performance virgin base stocks in combination with selected additive package to reach the following properties:

- Stable viscosity index.
- Good protection against rust, corrosion and wear.
- Good dispergency and detergency properties.
- Good antifoam properties.

Kyoto Japan Perfecta XL SAE 20W-50 exceeds the following performance criteria:

API SF/CD

Typical Analysis

Properties	Unit	Test Method	Typical Value
SAE Grade		SAE J300	20W-50
Density @15°C	kg/m^3	ASTM D4052	889
Kin. Viscosity @40°C	mm^2/s	ASTM D4052	157
Kin. Viscosity @100°C	mm^2/s	ASTM D7042	17.1
Viscosity Index		ASTM D2270	125
Viscosity CCS -15°C, max.	cP	ASTM D5293	9500
Flash Point COC	°C	ASTM D92	>201
Pour Point	°C	ASTM D97	-36
Total Base Nummer	mgKOH/g	ASTM D2896	5.8

Date Issued: 20-12-2015	Supersedes:01-01-2014	Revision Nr.:1

Kyoto Japan Tire (Suisse) S.A
1 Cour de Rive, 1207 Geneva - Switzerland
Tel +41.22. 789 32 00, Fax +41.21.826 11 76
Email sales@kyotojap.com

Kyoto Japan Tire Corporation Ltd.
Tokyo - Japan
www.kyotojap.com

Kyoto Japan Warm-UP SAE 5W50

Product Code:
KJL1115

Kyoto Japan Warm-UP SAE 5w50 is a high performance motor oil based on 100% synthetic technology with exceptional quality, delivering extreme performance in gasoline-, diesel- and LPG fuelled engines in passenger cars with or without turbocharger, working under severe temperature and load conditions.

Kyoto Japan Warm-UP SAE 5w50 is based on high quality synthetic base oil in combination with a unique additive package to ensure the following properties:

- Excellent thermal- and oxidation stability.
- Very good dispersant and detergent properties.
- Excellent cold temperature properties for a smooth cold start.
- Excellent protection against wear, corrosion and foam.
- Suited for extreme and severe conditions.

Kyoto Japan Warm-UP SAE 5w50 exceeds the following performance criteria:

API SM/CF ACEA A3/B4 MB 229.1 VW 502.00/505.00

Typical Analysis

Properties	Unit	Method	Typical Value
SAE Grade		SAE J300	5W-50
Density @15°C	kg/m^3	ASTM 4052	859
Kinematic Viscosity @ 40°C	mm2/s	ASTM D7042	111
Kinematic Viscosity @ 100°C	mm2/s	ASTM D7042	18.2
Viscosity Index		ASTM D2270	181
Viscosity CCS @ -30, max	cP	ASTM D5293	6600
Flash Point COC	°C	ASTM D92	>201
Pour Point	°C	ASTM D97	-39
Total Base Number	mgKOH/g	ASTM D2896	9.7
Sulphated Ash	%Wt	ASTM D874	1.16

Date Issued: 20-12-2015	Supersedes:01-01-2014	Revision Nr.:1

Kyoto Japan Tire (Suisse) S.A
1 Cour de Rive, 1207 Geneva - Switzerland
Tel +41.22. 789 32 00, Fax +41.21.826 11 76
Email sales@kyotojap.com

Kyoto Japan Tire Corporation Ltd.
Tokyo - Japan
www.kyotojap.com

Kyoto Japan Hypersynthetic HS 5W50

Product Code:
KJL1115HS

Description :
A modern, synthetic, universal motor oil based on special selected synthetic base oils with a high viscosity index and a well-balanced choice of advanced additives to obtain the following properties:
- a high and very stable viscosity index
- a high resistance against shearing
- a fast cold start
- a very strong resistance against oxidation
- a safe lubrication film at very high temperatures
- a very good detergency and dispersion
- a very strong protection against wear, corrosion and foaming

Application :
A universal, special composed synthetic motor oil recommended for use in petrol and diesel engines, with or without turbo-charging, in passenger cars and delivery vans for which the most modern specifications are required.

Performance Level :
ACEA A3/B4-12
API SN/CF
Meets the requirements of
VW 502.00/505.00
MB 229.3
Porsche A40

Typicals :

Density at 15 °C, kg/l	:	0,853
Viscosity -30 °C, mPa.s	:	4670
Viscosity 40 °C, mm²/s	:	100,90
Viscosity 100 °C, mm²/s	:	17,30
Viscosity Index	:	188
Flash Point COC, °C	:	223
Pour Point, °C	:	-39 Total
Base Number, mgKOH/g	:	10,5
Sulphate Ash, %	:	1,33

A Family of
Superior Lubricants & Additives

PROFESSIONAL LUBRICANT
Made in E.U.
European Union

Kyoto Japan Tire (Suisse) S.A
1 Cour de Rive, 1207 Geneva - Switzerland
Tel +41.22. 789 32 00, Fax +41.21.826 11 76
Email sales@kyotojap.com

Kyoto Japan Tire Corporation Ltd.
Tokyo - Japan
www.kyotojap.com

Kyoto Japan Perfecta XL SAE 5W-30

Product Code:
KJL1116

Kyoto Japan Perfecta XL SAE 5W-30 is a high performance fuel saving semi synthetic oil for use in gasoline- and diesel engines of passenger car and light vans with or without turbo compressor. This product is not to be used in diesel engines equipped with a Diesel Particle Filter (DPF).

Kyoto Japan Perfecta XL SAE 5W-30 is formulated with high quality mineral and synthetic base stocks in combination with a unique additive technology to achieve the following performance:

- Very good low temperature properties.
- Protection to wear by cold start.
- Very high thermal- and oxidation stability.
- Excellent resistance against foaming, corrosion and wear.
- High dispersity and detergency level.
- High viscosity index.

Kyoto Japan Perfecta XL SAE 5W-30 meets the following performance criteria:

Meets ACEA A5/B5 API SL/CF RN 0700

Typical Analysis

Propert	Unit	Method	Typical Value
SAE Grade		SAE J3000	5W-30
Density @15°C	kg/m^3	ASTM D4052	856
Kin. Viscosity @40°C	mm^2/s	ASTM D7042	51.0
Kin. Viscosity @100°C	mm^2/s	ASTM D7042	10.4
Viscosity Index		ASTM D2270	145
Viscosity CCS @-30°, max.	cP	ASTM D5293	6600
Flash Point COC	°C	ASTM D92	210
Pour Point	°C	ASTM D97	-33
Total Base Number	mgKOH/g	ASTM D2896	8.1

Date Issued: 20-12-2015	Supersedes:01-01-2014	Revision Nr.:1

Kyoto Japan Tire (Suisse) S.A
1 Cour de Rive, 1207 Geneva - Switzerland
Tel +41.22. 789 32 00, Fax +41.21.826 11 76
Email sales@kyotojap.com

Kyoto Japan Tire Corporation Ltd.
Tokyo - Japan
www.kyotojap.com

Kyoto Japan Perfecta S SAE 20W-50

Product Code:
KJL1117

Kyoto Japan Perfecta S SAE 20W-50 is a high performance mineral engine oil suitable for gasoline-, LPG-, and diesel engines in modern passenger cars and light vans with or without turbochargers.

Kyoto Japan Perfecta S SAE 20W-50 is based on high performance virgin mineral base oil in combination with a specially selected additive technology to ensure the following properties:

- Good thermal and oxidation stability.
- Stay-in-grade.
- Good protection against wear, foam en corrosion.
- Low temperature properties, to ensure a smooth cold start.

Kyoto Japan Perfecta S SAE 20W-50 exceeds the following performance criteria:

ACEA A3/B3 API SL/CF VW 505.00 MB 229.1

Typical Analysis

Properties	Unit	Method	Typical Value
SAE Grade		SAE J300	20W-50
Density @15°C	kg/m^3	ASTM D4052	892
Kin. Viscosity @40°C	mm^2/s	ASTM D7042	159
Kin. Viscosity @100°C	mm^2/s	ASTM D7042	18.2
Viscosity Index		ASTM D2270	125
Viscosity CCS -25°C, max	cP	ASTM D5293	9500
Flash Point COC	°C	ASTM D92	220
Pour Point	°C	ASTM D97	-33
Total Base Number	mgKOH/g	ASTM D2896	7.9
Sulphated Ash	%Wt	ASTM D874	0.96

Date Issued: 20-12-2015	Supersedes:01-01-2014	Revision Nr.:1

Kyoto Japan Tire (Suisse) S.A
1 Cour de Rive, 1207 Geneva - Switzerland
Tel +41.22. 789 32 00, Fax +41.21.826 11 76
Email sales@kyotojap.com

Kyoto Japan Tire Corporation Ltd.
Tokyo - Japan
www.kyotojap.com

KYOTO JAPAN LUBRICANTS

Kyoto Japan Perfecta ……..

Product Code:
KJL1118

A Family of
Superior Lubricants
& **Additives**

PROFESSIONAL LUBRICANT
Made in E.U.
European Union

Kyoto Japan Tire (Suisse) S.A
1 Cour de Rive, 1207 Geneva - Switzerland
Tel +41.22. 789 32 00, Fax +41.21.826 11 76
Email sales@kyotojap.com

Kyoto Japan Tire Corporation Ltd.
Tokyo - Japan
www.kyotojap.com

Kyoto Japan Perfecta S SAE 5W-40

Product Code:
KJL1119

Kyoto Japan Perfecta S SAE 5W-40 is an universal high performance fuel saving oil based on 100% synthetic technology for use in gasoline- and diesel engines of passenger car and light vans with or without turbocharger. This product is unsuitable for diesel engines equipped with a Diesel Particle Filter (DPF).

Kyoto Japan Perfecta S SAE 5W-40 is formulated with high quality synthetic base stocks in combination with a unique additive technology to achieve the following performance:

- Very good low temperature properties.
- Protection to wear by cold start.
- Very high thermal- and oxidation stability.
- Excellent resistance against foaming, corrosion and wear.
- High dispersity and detergency level.
- High viscosity index.

Kyoto Japan Perfecta S SAE 5W-40 exceeds the following performance criteria:

MB 229.1 BMW-LL 98 API SL/CF VW 501.01/505.00
ACEA A3/B4

Typical Analysis

Properties	Unit	Method	Typical Value
SAE Grade		SAE J3000	5W-40
Density @15°C	kg/m^3	ASTM D4052	850
Kin. Viscosity @40°C	mm^2/s	ASTM D7042	86
Kin. Viscosity @100°C	mm^2/s	ASTM D7042	14.0
Viscosity Index		ASTM D2270	1155
Viscosity CCS @-30°, max.	cP	ASTM D5293	6600
Flash Point COC	°C	ASTM D92	210
Pour Point	°C	ASTM D97	-36
Total Base Number	mgKOH/g	ASTM D2896	8.1
Sulphated Ash	%Wt	ASTM D874	0.95

Date Issued: 20-12-2015	Supersedes:01-01-2014	Revision Nr.:1

Kyoto Japan Tire (Suisse) S.A
1 Cour de Rive, 1207 Geneva - Switzerland
Tel +41.22. 789 32 00, Fax +41.21.826 11 76
Email sales@kyotojap.com

Kyoto Japan Tire Corporation Ltd.
Tokyo - Japan
www.kyotojap.com

Kyoto Japan Perfecta SN SAE 5W-20

Product Code:
KJL1120

Kyoto Japan Perfecta SN SAE 5W-20 is high performance fuel conserving engine oil based on 100% synthetic technology for all gasoline engines in passenger cars and light vans specially designed for the lubricating the latest generation vehicles like hybrid and ECO models which require a SAE 5W-20 and running on gasoline and/or ethanol-containing fuels up to E85.

Kyoto Japan Perfecta SN SAE 5W-20 is based on synthetic base oil in combination with a special additive package to obtain the following properties:

- Excellent thermal and oxidation stability.
- Excellent cold temperature properties for a smooth cold start.
- Very good dispersant and detergent properties.
- Fuel saving properties due to low friction properties
- Very good antifoam, antiwear and anti-corrosion properties.
- Long oil change interval possible.

Kyoto Japan Perfecta SN SAE 5W-20 exceeds the following performance criteria:

API SN/SN-RC ILSAC GF-5 GM Dexos 1
GM 4718M

Typical Analysis

Properties	Unit	Test Method	Typical Value
SAE Grade		SAE J300	5W-20
Density @15°C	kg/m^3	ASTM D4052	853
Kin. Viscosity @40°C	mm^2/s	ASTM D7042	51
Kin. Viscosity @100°C	mm^2/s	ASTM D7042	8.9
Viscosity Index		ASTM D2270	162
Viscosity CCS -30°C, max.	cP	ASTM D5293	6600
Flash point COC	°C	ASTM D92	>201
Pour point	°C	ASTM D97	-39
Total Base Nummer	mgKOH/g	ASTM D2896	7.8
Sulphated Ash	%Wt	ASTM D874	0.86

Date Issued: 20-12-2015	Supersedes:01-01-2014	Revision Nr.:1

Kyoto Japan Tire (Suisse) S.A
1 Cour de Rive, 1207 Geneva - Switzerland
Tel +41.22. 789 32 00, Fax +41.21.826 11 76
Email sales@kyotojap.com

Kyoto Japan Tire Corporation Ltd.
Tokyo - Japan
www.kyotojap.com

Kyoto Japan Perfecta SN SAE 0W-20

Product Code:
KJL1121

Kyoto Japan Perfecta SN SAE 0W-20 is high performance fuel conserving engine oil based on 100% synthetic technology for all gasoline engines in passenger cars and light vans specially designed for the lubricating the latest generation vehicles like hybrid and ECO models which require a SAE 0W-20 and running on gasoline and/or ethanol-containing fuels up to E85.

Kyoto Japan Perfecta SN SAE 0W-20 is based on synthetic base oil in combination with a special additive package to obtain the following properties:

- Excellent thermal and oxidation stability.
- Excellent cold temperature properties for a smooth cold start.
- Very good dispersant and detergent properties.
- Fuel saving properties due to low friction properties
- Very good antifoam, antiwear and anti-corrosion properties.
- Long oil change interval possible.

Kyoto Japan Perfecta SN SAE 0W-20 exceeds the following performance criteria:

API SN/SN-RC ILSAC GF-5 GM Dexos 1
GM 4718M

Typical Analysis

Properties	Unit	Test Method	Typical Value
SAE Grade		SAE J300	0W-20
Density @15°C	kg/m^3	ASTM D4052	853
Kin. Viscosity @40°C	mm^2/s	ASTM D7042	43.1
Kin. Viscosity @100°C	mm^2/s	ASTM D7042	8.3
Viscosity Index		ASTM D2270	172
Viscosity CCS -35°C, max.	cP	ASTM D5293	6200
Flash point COC	°C	ASTM D92	>201
Pour point	°C	ASTM D97	-42
Total Base Nummer	mgKOH/g	ASTM D2896	7.8
Sulphated Ash	% Wt	ASTM D874	0.86

Date Issued: 20-12-2015	Supersedes:01-01-2014	Revision Nr.:1

Kyoto Japan Tire (Suisse) S.A
1 Cour de Rive, 1207 Geneva - Switzerland
Tel +41.22. 789 32 00, Fax +41.21.826 11 76
Email sales@kyotojap.com

Kyoto Japan Tire Corporation Ltd.
Tokyo - Japan
www.kyotojap.com

Kyoto Japan Perfecta C4 SAE 5W-30

Product Code:
KJL1122

Kyoto Japan Perfecta C4 SAE 5W-30 is a high performance fuel saving LOW SAPS oil based on 100% synthetic technology for use in gasoline- and diesel engines of passenger cars and light vans specially designed for the latest generation Renault and Nissan diesel engines equipped with a Diesel Particle Filter (DPF) and all other engines where an ACEA C4 product is required.

Kyoto Japan Perfecta C4 SAE 5W-30 is formulated with high quality synthetic base stocks in combination with a unique additive technology to achieve the following performance:

- Very good low temperature properties.
- Protection to wear by cold start.
- Very high thermal- and oxidation stability.
- Excellent resistance against foaming, corrosion and wear.
- High dispersity and detergency level.
- High viscosity index.
- Extend oil drain interval.
- Also suitable for engines equipped with other catalyst like TWC.

Kyoto Japan Perfecta C4 SAE 5W-30 exceeds the following performance criteria:
ACEA C4 RN 0720 MB 229.51

Typical Analysis

Properties	Unit	Method	Typical Value
SAE Grade		SAE J3000	5W-30
Density @15°C	kg/m^3	ASTM D4052	854
Kin. Viscosity @40°C	mm^2/s	ASTM D7042	69
Kin. Viscosity @100°C	mm^2/s	ASTM D7042	11.7
Viscosity Index		ASTM D2270	175
Viscosity CCS @-30°, max.	cP	ASTM D5293	6600
Flash Point COC	°C	ASTM D92	>201
Pour Point	°C	ASTM D97	-39
Total Base Number	mgKOH/g	ASTM D2896	7.8
Sulphated Ash	%Wt	ASTM D874	0.51

Date Issued: 20-12-2015	Supersedes:01-01-2014	Revision Nr.:1

Kyoto Japan Tire (Suisse) S.A
1 Cour de Rive, 1207 Geneva - Switzerland
Tel +41.22. 789 32 00, Fax +41.21.826 11 76
Email sales@kyotojap.com

Kyoto Japan Tire Corporation Ltd.
Tokyo - Japan
www.kyotojap.com

Kyoto Japan Perfecta LLIII SAE 5W-30

Product Code:
KJL1123

Kyoto Japan Perfecta LLIII SAE 5W-30 is a high performance fuel saving LOW SAPS long life oil based on 100% synthetic technology for use in gasoline- and diesel engines of passenger cars and light vans where a VAG norm 504.00/507.00 has been prescribed and also suitable for vehicles where MB 229.51 and BMW LL-04 are required.
Remark: not suitable for R5- en V10 TDI engines and engines where VAG norm VW 506.01 is being advised.

Kyoto Japan Perfecta LLIII SAE 5W-30 is formulated with high quality synthetic base stocks in combination with a unique additive technology to achieve the following performance:

- Very good low temperature properties.
- Protection to wear by cold start.
- Very high thermal- and oxidation stability.
- Excellent resistance against foaming, corrosion and wear.
- High dispersity and detergency level.
- High viscosity index.
- Extended oil drain interval.
- Also suitable for engines equipped with other catalyst like TWC.

Kyoto Japan Perfecta LLIII SAE 5W-30 exceeds the following performance criteria:

ACEA A3/B4, C3 VW 504.00/507.00 MB 229.51 BMW LL-04

Typical Analysis

Properties	Unit	Method	Typical Value
SAE Grade		SAE J3000	5W-30
Density @15°C	kg/m^3	ASTM D4052	855
Kin. Viscosity @40°C	mm^2/s	ASTM D7042	65.2
Kin. Viscosity @100°C	mm^2/s	ASTM D7042	11.3
Viscosity Index		ASTM D2270	168
Viscosity CCS @-30°, max.	cP	ASTM D5293	6600
Flash Point COC	°C	ASTM D92	210
Pour Point	°C	ASTM D97	-42
Total Base Number	mgKOH/g	ASTM D2896	5.5
Sulphated Ash	%Wt	ASTM D874	0.7

Date Issued: 20-12-2015	Supersedes:01-01-2014	Revision Nr.:1

Kyoto Japan Tire (Suisse) S.A
1 Cour de Rive, 1207 Geneva - Switzerland
Tel +41.22. 789 32 00, Fax +41.21.826 11 76
Email sales@kyotojap.com

Kyoto Japan Tire Corporation Ltd.
Tokyo - Japan
www.kyotojap.com

Kyoto Japan Mixafleet Ultra 15W50

Product Code:
KJL1130

Description :
A universal multi-grade engine oil produced with special selected solvent refined base oils and additives. This engine oil has the following properties:
- a good detergency prevents deposits in the engine
- a good dispersion that prevents from precipitation and sludge
- a powerful action against wear, corrosion and foam
- a stable viscosity index
- low ash contents

Application :
This universal lubricating oil is suitable for gasoline or diesel engines, with or without super-charging. This motor oil is suitable for application in mixed fleets

Performance Level :
ACEA A3-98, B3-98, E2-96 API CH-4/SJ

Typicals :

Density at 15 °C, kg/l	:	0,879
Viscosity -20 °C, mPa.s	:	6000
Viscosity 40 °C, mm²/s	:	134,00
Viscosity 100 °C, mm²/s	:	17,50
Viscosity Index	:	144
Flash Point COC, °C	:	215
Pour Point, °C	:	-35 Total
Base Number, mgKOH/g	:	10,0
Sulphate Ash, %	:	1,22

Kyoto Japan Tire (Suisse) S.A
1 Cour de Rive, 1207 Geneva - Switzerland
Tel +41.22. 789 32 00, Fax +41.21.826 11 76
Email sales@kyotojap.com

Kyoto Japan Tire Corporation Ltd.
Tokyo - Japan
www.kyotojap.com

Kyoto Japan Moto Racing 4T 5w-40

Product Code:
KJL1201

Kyoto Japan Moto Racing 4T 5w-40 is a high performance 4-stroke gasoline engine oil developed specifically to meet the special requirements of latest high performance air cooled 4-stroke motorcycles. It provides excellent protection to engine, gearbox and wet clutch used in 4-stroke motorcycles and ensures highest degree of reliability even under severe operating conditions and temperatures.

Kyoto Japan Moto Racing 4T 5w-40 is based on a high quality synthetic base oils in combination with a special selected additive package to obtain the following properties:

- Outstanding thermo-oxidative stability.
- Exceptional antiwear, antirust and anticorrosion properties.
- Controlled frictional properties eliminate clutch slippage.
- Increased power/ fuel economy and improves drivability.
- Excellent dispersity and detergency properties.
- Excellent shear stability maintains viscosity under high temperature-high shear environment and provides improved wear protection.
- Outstanding low temperature properties enable easy starting at low ambient temperatures and ensure effective lubrication and wear protection at start up.
- Low volatility characteristics reduce oil consumption and hydrocarbon pollution.

Kyoto Japan Moto Racing 4T 5w-40 exceeds the following performance criteria:

JASO MA2 API SL

Typical Analysis

Properties	Unit	Method	Typical Value
Density @15°C	kg/m^3	ASTM D4052	839
Kin. Viscosity @40°C	mm^2/s	ASTM D445	82
Kin. Viscosity @100°C	mm^2/s	ASTM D445	13.6
Viscosity Index		ASTM D2270	171
Flash Point COC	°C	ASTM D92	>201
Pour Point	°C	ASTM D97	-45
Total Base Number	mgKOH/g	ASTM D2896	10.5
Sulphated Ash	%Wt	ASTM D874	1.2

Date Issued: 20-12-2015	Supersedes:01-01-2014	Revision Nr.:1

Kyoto Japan Tire (Suisse) S.A
1 Cour de Rive, 1207 Geneva - Switzerland
Tel +41.22. 789 32 00, Fax +41.21.826 11 76
Email sales@kyotojap.com

Kyoto Japan Tire Corporation Ltd.
Tokyo - Japan
www.kyotojap.com

Kyoto Japan Moto Racing 4T 10W-40

Product Code:
KJL1202

Kyoto Japan Moto Racing 4T 10W-40 is a high performance semi-synthetic, 4-stroke gasoline engine oil developed specifically to meet the special requirements of latest high performance air cooled 4-stroke motorcycles. It provides excellent protection to engine, gearbox and wet clutch used in 4-stroke motorcycles and ensures highest degree of reliability even under severe operating conditions and temperatures.

Kyoto Japan Moto Racing 4T 10W-40 is based on a high quality synthetic base oils in combination with a special selected additive package to obtain the following properties:

- Excellent antiwear, antirust and anticorrosion properties.
- Good thermo-and oxidative.
- Controlled frictional properties eliminate clutch slippage and improves drivability
- Excellent dispersant and detergent properties

Kyoto Japan Moto Racing 4T 10W-40 exceeds the following performance criteria:

JASO MA API SL

Typical Analysis

Properties	Unit	Method	Typical Value
Density @15°C	kg/m^3	ASTM D4052	872
Kin. Viscosity @40°C	mm^2/s	ASTM D445	99
Kin. Viscosity @100°C	mm^2/s	ASTM D445	14.5
Viscosity Index		ASTM D2270	160
Flash Point COC	°C	ASTM D92	>201
Pour Point	°C	ASTM D97	-33
Total Base Number	mgKOH/g	ASTM D2896	7.8
Sulphated Ash	%Wt	ASTM D874	0.95

Date Issued: 20-12-2015	Supersedes:01-01-2014	Revision Nr.:1

Kyoto Japan Tire (Suisse) S.A
1 Cour de Rive, 1207 Geneva - Switzerland
Tel +41.22. 789 32 00, Fax +41.21.826 11 76
Email sales@kyotojap.com

Kyoto Japan Tire Corporation Ltd.
Tokyo - Japan
www.kyotojap.com

Kyoto Japan Moto 4T 10W-50

Product Code:
KJL1203

Kyoto Japan Moto 4T 10W-50 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 provides excellent protection to engine, gearbox and wet clutch used in 4-stroke motorcycles and ensures highest degree of reliability even under severe operating conditions and temperatures.
Kyoto Japan Moto 4T 10W-50 is based on a high quality mineral and synthetic base oils in combination with a special selected additive package to obtain the following properties:

- Outstanding thermo-oxidative stability.
- Exceptional antiwear, antirust and anticorrosion properties.
- Controlled frictional properties eliminate clutch slippage.
- Increased power/ fuel economy and improves drivability.
- Excellent dispersity and detergency properties.
- Excellent shear stability maintains viscosity under high temperature-high shear environment.
- Provides improved wear protection.
- Outstanding low temperature properties enable easy starting at low ambient temperatures.
- Ensure effective lubrication and wear protection at start up.
- Low volatility characteristics reduce oil consumption and hydrocarbon pollution.

Kyoto Japan Moto 4T 10W-50 exceeds the following performance criteria:

API SL JASO MA

Typical Analysis

Properties	Unit	Method	Typical Value
Density @15°C	kg/m^3	ASTM D4052	871
Kin. Viscosity @40°C	mm^2/s	ASTM D445	121
Kin. Viscosity @100°C	mm^2/s	ASTM D445	17.8
Viscosity Index		ASTM D2270	160
Flash Point COC	°C	ASTM D92	>201
Pour Point	°C	ASTM D97	-39
Total Base Number	mgKOH/g	ASTM D2896	7.3

Date Issued: 20-12-2015	Supersedes:01-01-2014	Revision Nr.:1

Kyoto Japan Tire (Suisse) S.A
1 Cour de Rive, 1207 Geneva - Switzerland
Tel +41.22. 789 32 00, Fax +41.21.826 11 76
Email sales@kyotojap.com

Kyoto Japan Tire Corporation Ltd.
Tokyo - Japan
www.kyotojap.com

Kyoto Japan Power Synt 2T

Product Code:
KJL1204

Kyoto Japan Power Synt 2T is a high performance low smoke 2-stroke motorcycle oil based on 100% synthetic technology to be used in 2-stroke motorcycle, scooter, snow mobiles and other variety gasoline engines. **Kyoto Japan Power Synt 2T** cannot been used in 2-stroke outboard engines

Kyoto Japan Power Synt 2T is based on high performance synthetic base oil in combination with a specially selected additive technology to ensure the following properties.

- Excellent engine protection on cleanliness.
- Low smoke even under extreme operation conditions.
- High thermal and oxidation stability.
- Exceptional protection against piston scuffing.
- High antiwear and anticorrosion properties.
- Homogeneous mixture even at low ambient temperatures.

Kyoto Japan Power Synt 2T exceeds the following performance criteria;

JASO FD ISO-L-EGD API TC ISO 6743-15

Typical Analysis

Properties	Unit	Method	Typical Value
Density @15°C	kg/m^3	ASTM D4052	863
Kin. Viscosity @40°C	mm^2/s	ASTM D7042	67.6
Kin. Viscosity @100°C	mm^2/s	ASTM D7042	10.9
Viscosity Index		ASTM D2270	152
Flash Point COC	°C	ASTM D92	92
Pour Point	°C	ASTM D97	-39
Total Base Number	mgKOH/g	ASTM D2896	1.6
Sulphated Ash	%Wt	ASTM D874	0.15

Date Issued: 20-12-2015	Supersedes:01-01-2014	Revision Nr.:1

Kyoto Japan Tire (Suisse) S.A
1 Cour de Rive, 1207 Geneva - Switzerland
Tel +41.22. 789 32 00, Fax +41.21.826 11 76
Email sales@kyotojap.com

Kyoto Japan Tire Corporation Ltd.
Tokyo - Japan
www.kyotojap.com

Kyoto Japan Power Semi-Synt 2T

Product Code:
KJL1205

Kyoto Japan Power Semi-Synt 2T is a high quality semi-synthetic lubricant specially developed for high powered 2-stroke air cooled gasoline engines fitted with oil-injection or premix systems.

Kyoto Japan Power Semi-Synt 2T is based on a high quality virgin and synthetic base oils in combination with a special selected additive package to obtain the following properties:

- Outstanding protection against piston scuffing and premature wear of engine components.
- Excellent control against engine deposits, exhaust system blocking.
- Extended engine life without power loss.
- Low ash additive technology prevents pre-ignition and spark plug fouling.
- Specially selected synthetic base fluid reduces visible exhaust smoke.
- Easy miscibility with gasoline ensures stable homogeneous mixture even at low ambient temperatures.

Kyoto Japan Power Semi-Synt 2T exceeds the following performance criteria:

API TC JASO FD ISO-L-EGD

Typical Analysis

Properties	Unit	Method	Typical Value
Density @15°C	kg/m^3	ASTM D4052	883
Kin. Viscosity @40°C	mm^2/s	ASTM D445	62.5
Kin. Viscosity @100°C	mm^2/s	ASTM D445	9.5
Viscosity Index		ASTM D2270	135
Flash Point COC	°C	ASTM D92	85
Pour Point	°C	ASTM D97	-36
Total Base Number	mgKOH/g	ASTM D2896	1.4
Sulphated Ash	%Wt	ASTM D78	0.14

Date Issued: 20-12-2015	Supersedes:01-01-2014	Revision Nr.:1

Kyoto Japan Tire (Suisse) S.A
1 Cour de Rive, 1207 Geneva - Switzerland
Tel +41.22. 789 32 00, Fax +41.21.826 11 76
Email sales@kyotojap.com

Kyoto Japan Tire Corporation Ltd.
Tokyo - Japan
www.kyotojap.com

Kyoto Japan Power 2T

Product Code:
KJL1206

Kyoto Japan Power 2T is a high quality lubricant suitable for use in air cooled 2-stroke gasoline engines deployed in variety of applications.

Kyoto Japan Power 2T is based on a high quality virgin base oils in combination with a special selected additive package to obtain the following properties:

- Excellent lubricity protects against piston scuffing and premature wear of engine components
- Proven additive technology controls engine and exhaust system deposits
- Low ash formula prevents pre-ignition and spark plug fouling
- Easy miscibility with gasoline ensures stable homogeneous mixture even at low ambient temperatures.

Kyoto Japan Power 2T exceeds the following performance criteria:

API TC JASO FB

Typical Analysis

Properties	Unit	Method	Typical Value
Density @15°C	kg/m^3	ASTM D4052	880
Kin. Viscosity @40°C	mm^2/s	ASTM D445	73
Kin. Viscosity @100°C	mm^2/s	ASTM D445	9.4
Viscosity Index		ASTM D2270	105
Flash Point COC	°C	ASTM D92	>201
Pour Point	°C	ASTM D97	-30
Total Base Number	mgKOH/g	ASTM D2896	1.2
Sulphated Ash	%Wt	ASTM D78	0.25

Date Issued: 20-12-2015	Supersedes:01-01-2014	Revision Nr.:1

Kyoto Japan Tire (Suisse) S.A
1 Cour de Rive, 1207 Geneva - Switzerland
Tel +41.22. 789 32 00, Fax +41.21.826 11 76
Email sales@kyotojap.com

Kyoto Japan Tire Corporation Ltd.
Tokyo - Japan
www.kyotojap.com

Kyoto Japan outboard 2T

Product Code:
KJL1207

Kyoto Japan outboard 2T is a high performance ashless 2-stroke engine oil for use in modern cooled outboard engines where NMMA TC-W3 is required

Kyoto Japan outboard 2T is based on high performance mineral base oil in combination with a specially selected additive technology to ensure the following properties.

- Excellent lubricity.
- Protection against wear and rust.
- High protection against scuffing and deposit forming.
- Easy mixing and stable mixture even at low temperatures

Kyoto Japan outboard 2T exceeds the following performance criteria;

NMMA TC-W3®

Typical Analysis

Properties	Unit	Method	Typical Value
Density @15°C	kg/m^3	ASTM D4052	867
Kin. Viscosity @40°C	mm^2/s	ASTM D7042	45.6
Kin. Viscosity @100°C	mm^2/s	ASTM D7042	7.5
Viscosity Index		ASTM D2270	130
Flash Point COC	°C	ASTM D92	92
Pour Point	°C	ASTM D97	-33
Total Base Number	mgKOH/g	ASTM D2896	3.45

Date Issued: 20-12-2015	Supersedes:01-01-2014	Revision Nr.:1

Kyoto Japan Tire (Suisse) S.A
1 Cour de Rive, 1207 Geneva - Switzerland
Tel +41.22. 789 32 00, Fax +41.21.826 11 76
Email sales@kyotojap.com

Kyoto Japan Tire Corporation Ltd.
Tokyo - Japan
www.kyotojap.com

Kyoto Japan Brake Fluid Dot 4

Product Code:
KJL1251

Product description

Kyoto Japan Brake Fluid DOT 4 is a high performance brake and clutch fluid with a minimum dry boiling point of 250 °C. Greatly exceeds SAE J1703 / J1704, FMVSS Nr.116 DOT 3 / DOT 4 and ISO 4925 specifications. Its high boiling point increases durability and safety. Provides excellent corrosion protection and rubber seal compatibility.

Usage

Suitable for all hydraulic brake and clutch systems requiring synthetic fluid of DOT 4 specifications.

Direction

Follow vehicle manufacturer's instructions when adding or replacing brake fluid. Miscible with all other brake fluids of DOT 4 specification. Must not be mixed with silicone type or silicone ester type of brake fluids. Store brake fluid clean and dry. Avoid contamination with fluids of any other kind and do not refill the container. Store brake fluid in the original container only. Keep the container tightly closed to prevent the absorption of moisture. Do not spill on car lacquer.

Dosage

Follow the service interval recommended by the car manufacturer. If no recommendation is given, it is advised to replace brake fluid at least every two years, preferably every year, every

Specifications & typical values

Properties	Unit	DOT 4 SpecifiCATION	Typical Value
Appearance	-	-	Clear Liquid
Colour	-	-	Light Amber
Density at 20 °C	g/ml	-	1.06
Water content %	%(m/m)	-	max 0.20
Equilibrium Reflux Boiling Point (ERBP)	°C	≥ 230	260
Wet Equilibrium Reflux Boiling Point (WERBP)	°C	≥ 155	160
Kinematic viscosity at - 40 °C at 100 °C	 mm²/s mm²/s	 ≤ 1800 ≥ 1.5	 1400 2.2

Kyoto Japan Tire (Suisse) S.A
1 Cour de Rive, 1207 Geneva - Switzerland
Tel +41.22. 789 32 00, Fax +41.21.826 11 76
Email sales@kyotojap.com

Kyoto Japan Tire Corporation Ltd.
Tokyo - Japan
www.kyotojap.com

Kyoyo Japan FullGear EP 80W-90

Product Code:
KJL1301

Kyoyo Japan FullGear EP 80W-90 is an universal high performance mineral EP gear oil for use in manual transmission en transaxles of passenger cars, vans, light- and heavy commercial vehicles, off-highway equipment, mining and agriculture where a SAE 80W-90 GL-4 is been required.

Kyoyo Japan FullGear EP 80W-90 is formulated with high refined mineral base stocks in combination with a special EP-additive technology to achieve the following performance:

- Good Extreme Pressure and Antiwear properties.
- High thermal- and oxidation stability.
- Effective rust, wear and corrosion protection.
- Better low temperature provides easy start-up at low ambient temperatures.
- Good anti-foam properties ensure film strength for effective lubrication.
- Excellent seal compatibility.

Kyoyo Japan FullGear EP 80W-90 exceeds the following performance criteria:

API GL-4 MIL-L-2105

Typical Analysis

Properties	Unit	Method	Typical Value
SAE Grade		SAE J306	80W-90
Density @15°C	kg/m^3	ASTM D4052	894
Kin. Viscosity @40°C	mm^2/s	ASTM D7042	154
Kin. Viscosity @100°C	mm^2/s	ASTM D7042	14.6
Viscosity Index		ASTM D2270	96
Viscosity Brookfield @-26°C	cP	ASTM D5293	150000
Flash Point COC, min	°C	ASTM D92	201
Pour Point	°C	ASTM D97	-24

Date Issued: 20-12-2015	Supersedes:01-01-2014	Revision Nr.:1

Kyoto Japan Tire (Suisse) S.A
1 Cour de Rive, 1207 Geneva - Switzerland
Tel +41.22. 789 32 00, Fax +41.21.826 11 76
Email sales@kyotojap.com

Kyoto Japan Tire Corporation Ltd.
Tokyo - Japan
www.kyotojap.com

Kyoto Japan FullGear MZ 80W

Product Code:
KJL1302

Kyoto Japan FullGear MZ 80W is an universal high performance mineral MP gear oil for use in a wide range of automotive transmission and final drives of on passenger cars, light- and heavy trucks, busses and vans.

Kyoto Japan FullGear MZ 80W is formulated with high refined mineral base stocks in combination with a special MP-additive technology to achieve the following performance:

- Very good protection against wear.
- Very good performance against the forming of foam and corrosion.
- Good Oxidation- and thermal stability.

Kyoto Japan FullGear MZ 80W exceeds the following performance criteria:

API GL-4 MIL-L-2105 MB 235.5 MAN 341 Z2
ZF TE-ML 02B/17A

Typical Analysis

Properties	Unit	Method	Typical Value
SAE Grade		SAE J306	80W
Density @15°C	kg/m^3	ASTM D4052	890
Kin. Viscosity @40°C	mm^2/s	ASTM D7042	83.2
Kin. Viscosity @100°C	mm^2/s	ASTM D7042	10.0
Viscosity Index		ASTM D2270	95
Viscosity Brookfield @-26°C	cP	ASTM D5293	150000
Flash Point COC, min	°C	ASTM D92	>180
Pour Point	°C	ASTM D97	-27

Date Issued: 20-12-2015	Supersedes:01-01-2014	Revision Nr.:1

Kyoto Japan Tire (Suisse) S.A
1 Cour de Rive, 1207 Geneva - Switzerland
Tel +41.22. 789 32 00, Fax +41.21.826 11 76
Email sales@kyotojap.com

Kyoto Japan Tire Corporation Ltd.
Tokyo - Japan
www.kyotojap.com

Kyoto Japan FullGear MP 80W-90

Product Code:
KJL1303

Kyoto Japan FullGear MP 80W-90 is an universal high performance mineral MP gear oil for use in manual transmission en transaxles of passenger cars, vans, light- and heavy commercial vehicles, off-highway equipment, mining and agriculture where a SAE 80W-90 GL-5 is been required.
Kyoto Japan FullGear MP 80W-90 is formulated with high refined mineral base stocks in combination with a special MP-additive technology to achieve the following performance:

- Very good protection against wear.
- Very good performance against the forming of foam and corrosion.
- Good Oxidation- and thermal stability.

Kyoto Japan FullGear MP 80W-90 exceeds the following performance criteria:

API GL-5 MIL-L-2105D MAN 342 M1/M2
ZF TE-ML 05A, 7A, 16B, 16C, 16D, 17B, 19B, 21A

Typical Analysis

Properties	Unit	Method	Typical Value
SAE Grade		SAE J306	80W-90
Density @15°C	kg/m^3	ASTM D4052	902
Kin. Viscosity @40°C	mm^2/s	ASTM D7042	162
Kin. Viscosity @100°C	mm^2/s	ASTM D7042	14.4
Viscosity Index		ASTM D2270	96
Viscosity Brookfield @-26°C	cP	ASTM D5293	150000
Flash Point COC, min	°C	ASTM D92	>198
Pour Point	°C	ASTM D97	-27

Date Issued: 20-12-2015	Supersedes:01-01-2014	Revision Nr.:1

Kyoto Japan Tire (Suisse) S.A
1 Cour de Rive, 1207 Geneva - Switzerland
Tel +41.22. 789 32 00, Fax +41.21.826 11 76
Email sales@kyotojap.com

Kyoto Japan Tire Corporation Ltd.
Tokyo - Japan
www.kyotojap.com

Kyoto Japan FullGear LS 80W-90

Product Code:
KJL1304

Kyoto Japan FullGear LS 80W-90 is an extra high performance extreme pressure type automotive gear lubricant specially developed for use in modern high performance passenger cars, sports utility vehicles, vans and light duty trucks with limited slip differentials.

Kyoto Japan FullGear LS 80W-90 is based on high quality mineral virgin base oil in combination with a special additive package to ensure the following properties:

- Exceptional thermo-oxidative stability.
- Exceptional load bearing characteristics.
- Effective rust and corrosion protection.
- Excellent limited slip performance to reduce chatter and improves traction.
- Outstanding low temperature fluidity provides smoother shifting at low ambient temperatures.
- Exceptional shear stable.
- Good frictional properties provide improved fuel economy and smoother shift ability

Kyoto Japan FullGear LS 80W-90 exceeds the following performance criteria:

API GL 5	MIL PRF 2105D	MAN 342 M1/M2	MB 235.0
Volvo 97310	DAF	Renault	Arvin Meritor
ZF TE-ML 05C, 12C, 16E, 21C			

Typical Analysis

Properties	Unit	Method	Typical Value
SAE Grade		SAE J3000	80W-90
Density @15°C	kg/m^3	ASTM D4052	896
Kin. Viscosity @40°C	mm^2/s	ASTM D7042	132
Kin. Viscosity @100°C	mm^2/s	ASTM D7042	13.8
Viscosity Index		ASTM D2270	100
Brookfield Viscosity @-40°C	cP	ASTM D2983	150000
Flash Point COC	°C	ASTM D92	>201
Pour Point	°C	ASTM D97	-30

Date Issued: 20-12-2015	Supersedes:01-01-2014	Revision Nr.:1

Kyoto Japan Tire (Suisse) S.A
1 Cour de Rive, 1207 Geneva - Switzerland
Tel +41.22. 789 32 00, Fax +41.21.826 11 76
Email sales@kyotojap.com

Kyoto Japan Tire Corporation Ltd.
Tokyo - Japan
www.kyotojap.com

Kyoto Japan FullGear TX 75W-80

Product Code:
KJL1305

Kyoto Japan FullGear TX 75W-80 is a high quality fuel saving synthetic thermally stable long life gear lubricant designed for passenger- and commercial vehicles using manual transmissions fitted with different synchronizers including latest ones based on carbon.

Kyoto Japan FullGear TX 75W-80 is based on high quality synthetic base oil in combination with a special additive package to ensure the following properties:

- Exceptional thermo-oxidative stability.
- Superior lubricating properties provide improved fuel economy.
- Exceptional load bearing characteristics.
- Effective rust and corrosion protection.
- Outstanding low temperature fluidity provides smoother shifting at low ambient temperatures.
- Good gear engagement with a variety of synchronizer materials including latest carbon.
- Good frictional properties provide improved fuel economy and smoother shift ability

Kyoto Japan FullGear TX 75W-80 exceeds the following performance criteria:

Exceeds	MAN 341 Z4	MAN 341 E3	
	Iveco		
	API GL-5	Renault B0032/2	Eaton Europe
	ZF TE-ML 01L, 02L, 08, 16K	Volvo 97305	MB 235.4

Typical Analysis

Properties	Unit	Method	Typical Value
SAE Grade		SAE J3000	75W-80
Density @15°C	kg/m^3	ASTM D4052	862
Kin. Viscosity @40°C	mm^2/s	ASTM D7042	58.5
Kin. Viscosity @100°C	mm^2/s	ASTM D7042	9.8
Viscosity Index		ASTM D2270	155
Brookfield Viscosity @-40°C	cP	ASTM D2983	150000
Flash Point COC	°C	ASTM D92	>201
Pour Point	°C	ASTM D97	-39

Date Issued: 20-12-2015	Supersedes:01-01-2014	Revision Nr.:1

Kyoto Japan Tire (Suisse) S.A
1 Cour de Rive, 1207 Geneva - Switzerland
Tel +41.22. 789 32 00, Fax +41.21.826 11 76
Email sales@kyotojap.com

Kyoto Japan Tire Corporation Ltd.
Tokyo - Japan
www.kyotojap.com

Kyoto Japan FullGear TDL 80W90

Product Code:
KJL1306

Kyoto Japan FullGear TDL 80W90 is a high performance total driveline gear lubricant designed to provide excellent lubrication in a wide range of drive trains of light & heavy duty commercial vehicles.

Kyoto Japan FullGear TDL 80W90 is based on high quality mineral base oil in combination with a special additive package to ensure the following properties:

- Good thermo-oxidative stability.
- Good load bearing characteristics.
- Effective rust and corrosion protection.
- High low temperature fluidity provides smoother shifting at low ambient temperatures.
- Exceptional shear stable.
- Excellent frictional properties provide improved fuel economy and smoother shiftability

Kyoto Japan FullGear TDL 80W90 exceeds the following performance criteria:

API GL-4/5, MT-1	MAN M 3343	MIL-PRF-2105E	Scania STO 1:0
MB 235.0	ZF TE-ML 02B/05A/07A/12E/16B/16C/16D/17B/19B/21A		
SAE J2360	MACK GO-J	MAN 341 E2	Volvo 97310

Typical Analysis

Properties	Unit	Method	Typical Value
SAE Grade		SAE J3000	80W-90
Density @15°C	kg/m^3	ASTM D4052	902
Kin. Viscosity @40°C	mm^2/s	ASTM D7042	148
Kin. Viscosity @100°C	mm^2/s	ASTM D7042	15.2
Viscosity Index		ASTM D2270	95
Brookfield Viscosity @-40°C	cP	ASTM D2983	150000
Flash Point COC	°C	ASTM D92	>201
Pour Point	°C	ASTM D97	-27

Date Issued: 20-12-2015	Supersedes:01-01-2014	Revision Nr.:1

Kyoto Japan Tire (Suisse) S.A
1 Cour de Rive, 1207 Geneva - Switzerland
Tel +41.22. 789 32 00, Fax +41.21.826 11 76
Email sales@kyotojap.com

Kyoto Japan Tire Corporation Ltd.
Tokyo - Japan
www.kyotojap.com

Kyoto Japan FullGear TDL 85W140

Product Code:
KJL1307

Kyoto Japan FullGear TDL 85W140 is a high performance total driveline gear lubricant designed to provide excellent lubrication in a wide range of drive trains of light & heavy duty commercial vehicles.

Kyoto Japan FullGear TDL 85W140 is based on high quality mineral base oil in combination with a special additive package to ensure the following properties:

- Good thermo-oxidative stability.
- Good load bearing characteristics.
- Effective rust and corrosion protection.
- High low temperature fluidity provides smoother shifting at low ambient temperatures.
- Exceptional shear stable.
- Excellent frictional properties provide improved fuel economy and smoother shiftability

Kyoto Japan FullGear TDL 85W140 exceeds the following performance criteria:

API GL-4/5, MT-1	MAN M 3343	MIL-PRF-2105E	Scania STO 1:0
MB 235.0	ZF TE-ML 02B/05A/07A/12E/16B/16C/16D/17B/19B/21A		
SAE J2360	MACK GO-J	MAN 341 E2	

Typical Analysis

Properties	Unit	Method	Typical Value
SAE Grade		SAE J3000	85W-140
Density @15°C	kg/m^3	ASTM D4052	912
Kin. Viscosity @40°C	mm^2/s	ASTM D7042	366
Kin. Viscosity @100°C	mm^2/s	ASTM D7042	27.0
Viscosity Index		ASTM D2270	95
Brookfield Viscosity @-40°C	cP	ASTM D2983	150000
Flash Point COC	°C	ASTM D92	>201
Pour Point	°C	ASTM D97	-36

Date Issued: 20-12-2015	Supersedes:01-01-2014	Revision Nr.:1

Kyoto Japan Tire (Suisse) S.A
1 Cour de Rive, 1207 Geneva - Switzerland
Tel +41.22. 789 32 00, Fax +41.21.826 11 76
Email sales@kyotojap.com

Kyoto Japan Tire Corporation Ltd.
Tokyo - Japan
www.kyotojap.com

Kyoto Japan FullGear SYNT 75W90

Product Code:
KJL1308

Kyoto Japan FullGear SYNT 75W90 is a high quality fuel conserving fully synthetic total driveline gear lubricants designed to meet the demanding requirements of light duty and heavy duty commercial vehicles and off-highway equipment operating in most severe operating conditions. Unique additive technology allows the use of a single lubricant in rear axles, synchronized and non-synchronized manual transmission.

Kyoto Japan FullGear SYNT 75W90 is based on high quality synthetic base oil in combination with a special additive package to ensure the following properties:

- Exceptional thermo-oxidative stability.
- Exceptional load bearing characteristics.
- Effective rust and corrosion protection.
- Outstanding low temperature fluidity provides smoother shifting at low ambient temperatures.
- Exceptional shear stable.
- Superior frictional properties provide improved fuel economy and smoother shiftability

Kyoto Japan FullGear SYNT 75W90 exceeds the following performance criteria:

API GL-4/5, MT-1	MAN M3343S	MIL-PRF-2105E	Scania STO 1:0
MB 235.0	ZF TE-ML 02B/05A/07A/12E/16B/16C/16D/17B/19B/21A		
SAE J2360	MACK GO-J	MAN 341 E2	

Typical Analysis

Properties	Unit	Method	Typical Value
SAE Grade		SAE J3000	75W-90
Density @15°C	kg/m^3	ASTM D4052	878
Kin. Viscosity @40°C	mm^2/s	ASTM D7042	94.2
Kin. Viscosity @100°C	mm^2/s	ASTM D7042	15.2
Viscosity Index		ASTM D2270	171
Brookfield Viscosity @-40°C	cP	ASTM D2983	150000
Flash Point COC	°C	ASTM D92	>201
Pour Point	°C	ASTM D97	-36

Date Issued: 20-12-2015	Supersedes:01-01-2014	Revision Nr.:1

Kyoto Japan Tire (Suisse) S.A
1 Cour de Rive, 1207 Geneva - Switzerland
Tel +41.22. 789 32 00, Fax +41.21.826 11 76
Email sales@kyotojap.com

Kyoto Japan Tire Corporation Ltd.
Tokyo - Japan
www.kyotojap.com

Kyoto Japan FullGear SYNT 75W140

Product Code:
KJL1309

Kyoto Japan FullGear SYNT 75W140 is a fuel saving universal high performance EP gear oil based on synthetic technology for use as total driveline gear of passenger cars, vans, light- and heavy commercial vehicles requiring a GL-4/GL-5 SAE 75W-90 performance.

Kyoto Japan FullGear SYNT 75W140 is formulated with PAO (PolyAlphaOlefins) synthetic base stocks in combination with a unique EP-additive technology to achieve the following performance:

- Very good protection against wear.
- Very good performance against the forming of foam and corrosion.
- Outstanding Oxidation- and thermal stability.
- Superior seal compatibility
- Fully compatible with synchromesh transmissions.

Kyoto Japan FullGear SYNT 75W140 exceeds the following performance criteria:

API GL-4/GL-5	API MT-1	MIL-PRF-2105E	SAE J2360
DAF	IVECO	MAN M 3343S	MAN 341 E3
MB 235.8	Scania STO 1:0	Arvin Meritor O-76-N	MACK GO-J
ZF TE-ML 02B/05B/07A/12B/16F/17B/19C/21B			

Typical Analysis

Properties	Unit	Method	Typical Value
SAE Grade		SAE J306	75W-140
Density @15°C	kg/m^3	ASTM D4052	871
Kin. Viscosity @40°C	mm^2/s	ASTM D7042	185
Kin. Viscosity @100°C	mm^2/s	ASTM D7042	25
Viscosity Index		ASTM D2270	>150
Viscosity Brookfield @-40°C	cP	ASTM D5293	150000
Flash Point COC, min	°C	ASTM D92	>201
Pour Point	°C	ASTM D97	-45

Date Issued: 20-12-2015	Supersedes:01-01-2014	Revision Nr.:1

Kyoto Japan Tire (Suisse) S.A
1 Cour de Rive, 1207 Geneva - Switzerland
Tel +41.22. 789 32 00, Fax +41.21.826 11 76
Email sales@kyotojap.com

Kyoto Japan Tire Corporation Ltd.
Tokyo - Japan
www.kyotojap.com

Kyoto Japan FullGear EP 90

Product Code:
KJL1310

Kyoto Japan FullGear EP 90 is an universal performance mineral EP gear oil for use in manual transmission en transaxles of passenger cars, vans, light- and heavy commercial vehicles, off-highway equipment, mining and agriculture where a SAE 90 GL-5 is been required.

Kyoto Japan FullGear EP 90 is formulated with high refined mineral base stocks in combination with a special EP-additive technology to achieve the following performance:

- Very good protection against wear.
- Very good performance against the forming of foam and corrosion.
- Good Oxidation- and thermal stability.

Kyoto Japan FullGear EP 90 exceeds the following performance criteria:

API GL-5 MIL-L-2105

Typical Analysis

Properties	Unit	Method	Typical Value
SAE Grade		SAE J306	SAE 90
Density @15°C	kg/m^3	ASTM D4052	892
Kin. Viscosity @40°C	mm^2/s	ASTM D7042	173.3
Kin. Viscosity @100°C	mm^2/s	ASTM D7042	16.1
Viscosity Index		ASTM D2270	96
Flash Point COC, min	°C	ASTM D92	>190
Pour Point	°C	ASTM D97	-15

Date Issued: 20-12-2015	Supersedes:01-01-2014	Revision Nr.:1

Kyoto Japan Tire (Suisse) S.A
1 Cour de Rive, 1207 Geneva - Switzerland
Tel +41.22. 789 32 00, Fax +41.21.826 11 76
Email sales@kyotojap.com

Kyoto Japan Tire Corporation Ltd.
Tokyo - Japan
www.kyotojap.com

Kyoto Japan FullGear LS 85W140

Product Code:
KJL1311

Kyoto Japan FullGear LS 85W140 is an extra high performance extreme pressure type automotive gear lubricant specially developed for use in modern high performance passenger cars, sports utility vehicles, vans and light duty trucks with limited slip differentials.

Kyoto Japan FullGear LS 85W140 is based on high quality mineral virgin base oil in combination with a special additive package to ensure the following properties:

- Exceptional thermo-oxidative stability.
- Exceptional load bearing characteristics.
- Effective rust and corrosion protection.
- Excellent limited slip performance to reduce chatter and improves traction.
- Outstanding low temperature fluidity provides smoother shifting at low ambient temperatures.
- Exceptional shear stable.
- Good frictional properties provide improved fuel economy and smoother shift ability

Kyoto Japan FullGear LS 85W140 exceeds the following performance criteria:

API GL 5	MIL PRF 2105D	MAN 342 M1/M2	MB 235.0
Volvo 97310	DAF	Renault	Arvin Meritor
ZF TE-ML 05C, 12C, 16E, 21C			

Typical Analysis

Properties	Unit	Method	Typical Value
SAE Grade		SAE J3000	85W-140
Density @15°C	kg/m^3	ASTM D4052	906.8
Kin. Viscosity @40°C	mm^2/s	ASTM D7042	408
Kin. Viscosity @100°C	mm^2/s	ASTM D7042	28.4
Viscosity Index		ASTM D2270	97
Brookfield Viscosity @-40°C	cP	ASTM D2983	150000
Flash Point COC	°C	ASTM D92	>201
Pour Point	°C	ASTM D97	-15

Date Issued: 20-12-2015	Supersedes:01-01-2014	Revision Nr.:1

Kyoto Japan Tire (Suisse) S.A
1 Cour de Rive, 1207 Geneva - Switzerland
Tel +41.22. 789 32 00, Fax +41.21.826 11 76
Email sales@kyotojap.com

Kyoto Japan Tire Corporation Ltd.
Tokyo - Japan
www.kyotojap.com

Kyoto Japan AUTO ATF DEXRON II

Product Code:
KJL1312

Kyoto Japan AUTO ATF DEXRON II is a high quality universal fluid to be used in automatic transmission, torque convertors and power steering of passenger car, light vans and commercial vehicles.

Kyoto Japan AUTO ATF DEXRON II is formulated on high refined solvent mineral and synthetic base stock in combination with a unique additive package to reach the following properties.

- Good thermal- and oxidation stability.
- Special friction modifiers.
- Verry high viscosity Index.
- Low pourpoint.
- Excellent shifting at very low and high temperatures.
- Excellent protection against the forming corrosion, foam and wear.

Kyoto Japan AUTO ATF DEXRON II exceeds the following performance criteria:

Dexron IID ZF TE-ML 02F, 03D, 04D, 09, 11B, 14A, 17C

Typical Analysis

Properties	Unit	Method	Typical Value
Color			Red
Density @15°C	kg/m^3	ASTM D4052	861
Kin. Viscosity @40°C	mm^2/s	ASTM D7042	37.28
Kin. Viscosity @100°C	mm^2/s	ASTM D7042	7.2
Viscosity Index		ASTM D2270	162
Viscosity Brookfield @-40°, max.	cP	ASTM D5293	40750
Flash Point COC	°C	ASTM D92	172
Pour Point	°C	ASTM D97	-39

Date Issued: 20-12-2015	Supersedes:01-01-2014	Revision Nr.:1

Kyoto Japan Tire (Suisse) S.A
1 Cour de Rive, 1207 Geneva - Switzerland
Tel +41.22. 789 32 00, Fax +41.21.826 11 76
Email sales@kyotojap.com

Kyoto Japan Tire Corporation Ltd.
Tokyo - Japan
www.kyotojap.com

Kyoto Japan AUTO ATF DEXRON III

Product Code:
KJL1313

Kyoto Japan AUTO ATF DEXRON III is a high quality universal fluid to be used in automatic transmission, torque convertors and power steering of passenger car, light vans and commercial vehicles.

Kyoto Japan AUTO ATF DEXRON III is formulated on high refined solvent mineral and synthetic base stock in combination with a unique additive package to reach the following properties.

- Excellent thermal- and oxidation stability.
- Special friction modifiers.
- Verry high viscosity Index.
- Low pourpoint.
- Excellent shifting at very low and high temperatures.
- Excellent protection against the forming corrosion, foam and wear.

Kyoto Japan AUTO ATF DEXRON III exceeds the following performance criteria:

DEXRON IIIF/G/H	Allison C4	CAT TO-2	MAN 339 Z1/Z2
MAN 339 V1/V2	MB 236.10/236.9/236.7/236.5/236.1		Voith 55.6335
Voith 55.6336	Volvo 97341	Mercon	ZF 02F/03D/04D
ZF 11A/11B/14B/16L			

Typical Analysis

Properties	Unit	Method	Typical Value
Color			Red
Density @15°C	kg/m^3	ASTM D4052	841
Kin. Viscosity @40°C	mm^2/s	ASTM D7042	35
Kin. Viscosity @100°C	mm^2/s	ASTM D7042	7.3
Viscosity Index		ASTM D2270	180
Viscosity Brookfield @-40°, max.	cP	ASTM D5293	17500
Flash Point COC	°C	ASTM D92	201
Pour Point	°C	ASTM D97	-48

Date Issued: 20-12-2015	Supersedes:01-01-2014	Revision Nr.:1

Kyoto Japan Tire (Suisse) S.A
1 Cour de Rive, 1207 Geneva - Switzerland
Tel +41.22. 789 32 00, Fax +41.21.826 11 76
Email sales@kyotojap.com

Kyoto Japan Tire Corporation Ltd.
Tokyo - Japan
www.kyotojap.com

Kyoto Japan AUTO ATF MULTI VEHICLE

Product Code:
KJL1314

Kyoto Japan AUTO ATF MULTI VEHICLE is a high quality synthetic fluid specially designed with advanced multi-vehicle additive technology to serve a broad range of. **Kyoto Japan AUTO ATF MULTI VEHICLE** exceeds the complex requirements of Automatic Transmission/ Vehicle Manufacturers of Europe, North America and Asia including the JASO 1-A performance standard created by Japanese Automobile Manufacturers Association.

Remark: Not suitable for use in Continuously Variable Transmissions (CVT), Dual Clutch Transmission (DCT), Daimler MB 7 speed (NAG 2), ZF 6 Speed

Kyoto Japan AUTO ATF MULTI VEHICLE is formulated with high quality synthetic base stocks in combination with a special additive technology to achieve the following performance:

- Excellent thermo- and oxidation stability.
- Improved anti-shudder properties, torque capacity, low temperature properties coupled with balanced frictional stability provides better shift feel and drivability
- Excellent anti-corrosion, foam inhibition and seal protection.
- Extremely high Viscosity index and shear stability ensures adequate lubrication over entire service life in both high operating & low starting temperatures

Kyoto Japan AUTO ATF MULTI VEHICLE exceeds the following performance requirements:

Allison C4, TES 295	LT 71141, LA 23634	ETL -7045E, 8072B	Cat TO-2
Chrysler +3, +4	Ford Mercon	Ford Mercon V	Dexron IIIG/H
Honda SP-III, Z1	Mitsubishi SP-III	KIA SP-III	Idemitsu K17
JWS 3309/3314	JASO M315-2004	Texaco N402	MAN 3391 V1/Z2
Mazda ATF M-III, M5	MB 236.3, 5, 6, 9	MB 236.10, 11	Nissan Matic D, J, K
Subaru ATF, HP	Toyota T-III, T-IV	Voith H55.6335.xx	Volvo Std 1273.4
VW G 052 025	VW G 052 990	ZF TE ML 03D, 04D, 14A, 14B, 17C	

Typical Analysis

Properties	Unit	Method	Typical Value
Color			Yellow
Density @15°C	kg/m^3	ASTM D4052	850
Kin. Viscosity @40°C	mm^2/s	ASTM D7042	35
Kin. Viscosity @100°C	mm^2/s	ASTM D7042	7.3
Viscosity Index		ASTM D2270	180
Viscosity Brookfield @-40°, max.	cP	ASTM D5293	13000
Flash Point COC	°C	ASTM D92	>200
Pour Point	°C	ASTM D97	-48

Date Issued: 20-12-2015	Supersedes:01-01-2014	Revision Nr.:1

Kyoto Japan Tire (Suisse) S.A
1 Cour de Rive, 1207 Geneva - Switzerland
Tel +41.22. 789 32 00, Fax +41.21.826 11 76
Email sales@kyotojap.com

Kyoto Japan Tire Corporation Ltd.
Tokyo - Japan
www.kyotojap.com

Kyoto Japan AUTO ATF SUFFIX A

Product Code:
KJL1315

Kyoto Japan AUTO ATF SUFFIX A is a high performance automatic transmission fluid for developed for the automatic transmissions and power steering systems of vehicles specifying the use of General Motors TYPE A SUFFIX A quality fluids.

Kyoto Japan AUTO ATF SUFFIX A is formulated on high refined solvent mineral base stock in combination with a unique additive package to reach the following properties.

- Good thermal- and oxidation stability.
- Special friction modifiers.
- High Viscosity Index.
- Low pourpoint.
- Excellent shifting at very low and high temperatures.
- Excellent protection against the forming corrosion, foam and wear.

Kyoto Japan AUTO ATF SUFFIX A exceeds the following performance criteria:

Type A Suffix A

Typical Analysis

Properties	Unit	Method	Typical Value
Color			Red
Density @15°C	kg/m^3	ASTM D4052	859
Kin. Viscosity @40°C	mm^2/s	ASTM D7042	35.2
Kin. Viscosity @100°C	mm^2/s	ASTM D7042	7.3
Viscosity Index		ASTM D2270	175
Viscosity Brookfield @-40°,	cP	ASTM D5293	41950
Flash Point COC	°C	ASTM D92	175
Pour Point	°C	ASTM D97	-39

Date Issued: 20-12-2015	Supersedes:01-01-2014	Revision Nr.:1

Kyoto Japan Tire (Suisse) S.A
1 Cour de Rive, 1207 Geneva - Switzerland
Tel +41.22. 789 32 00, Fax +41.21.826 11 76
Email sales@kyotojap.com

Kyoto Japan Tire Corporation Ltd.
Tokyo - Japan
www.kyotojap.com

Kyoto Japan ATF 8HP

Product Code:
KJL1316

Kyoto Japan ATF 8HP is a high quality universal fluid based on 100% synthetic base stocks to be used in automatic transmission, torque convertors and powersteering of passenger car, light vans and commercial vehicles where a GM Dexron VI specification is required. **Kyoto Japan ATF 8HP** is backwards compatible where Dexron II and Dexron III is been required

Kyoto Japan ATF 8HP is formulated on high refined synthetic base stock in combination with a unique additive package to reach the following properties.

- Excellent thermal- and oxidation stability.
- Special friction modifiers.
- Verry high viscosity Index.
- Low pourpoint.
- Excellent shifting at very low and high temperatures.
- Excellent protection against the forming corrosion, foam and wear.

Kyoto Japan ATF 8HP exceeds the following performance criteria:

- G.M. DEXRON-VI,
- Jalos JASO 1A,
- Toyota ATF type WS
- VW TL 521 62, TL501 60, Type T-III, Type T-IV, ZF M1375
- Daimler-Chrysler ATF+3, ATF+4,
- Ford MERCON LV,
- Nissan MATIC S,
- Mitsubishi Diamond ATF SP II
- In_x001F_nitiATIC SMATIC K, MATIC J, MATIC D,
- Hyundai SP-IV,
- Kia SP-IV, SP III, A
- Accura ATF Z1
- **Conforms to MB 236.14 & MB 236.15 6HP & 8HP. ZF M1375**

Typical Analysis

Properties	Unit	Method	Typical Value
Color			Natural
Density @15°C	kg/m^3	ASTM D4052	847
Kin. Viscosity @40°C	mm^2/s	ASTM D7042	30
Kin. Viscosity @100°C	mm^2/s	ASTM D7042	6.0
Viscosity Index		ASTM D2270	151
Viscosity Brookfield @-40°, max.	cP	ASTM D5293	13000
Flash Point COC	°C	ASTM D92	201
Pour Point	°C	ASTM D97	-48

Date Issued: 20-12-2015	Supersedes:01-01-2014	Revision Nr.:1

Kyoto Japan Tire (Suisse) S.A
1 Cour de Rive, 1207 Geneva - Switzerland
Tel +41.22. 789 32 00, Fax +41.21.826 11 76
Email sales@kyotojap.com

Kyoto Japan Tire Corporation Ltd.
Tokyo - Japan
www.kyotojap.com

Kyoto Japan FullGear SEMI SYNT 75W90

Product Code:
KJL1317

Kyoto Japan FullGear SEMI SYNT 75W90 is a high quality fuel conserving total driveline gear lubricants based on synthetic technology designed to meet the demanding requirements of light duty and heavy duty commercial vehicles and off-highway equipment operating in most severe operating conditions. Unique additive technology allows the use of a single lubricant in rear axles, synchronized and non-synchronized manual transmission.

Kyoto Japan FullGear SEMI SYNT 75W90 is based on high quality base oil in combination with a special additive package to ensure the following properties:

- Excellent thermo-oxidative stability.
- Excellent load bearing characteristics.
- Effective rust and corrosion protection.
- Outstanding low temperature fluidity provides smoother shifting at low ambient temperatures.
- Excellent shear stable.
- High frictional properties provide improved fuel economy and smoother shift ability

Kyoto Japan FullGear SEMI SYNT 75W90 exceeds the following performance criteria:

API GL-4/GL-5	MIL-L-PRF-2105E	API MT-1	Mack GO-J
MAN 341 Type Z2	MAN 341 Type Z2	MAN 342 Type M2	MB 235.0
Scania STO-1	SAE J2360	Arvin Meritor 0-76-N	
ZF TE-ML 02B, 05A, 07A, 08			

Typical Analysis

Properties	Unit	Method	Typical Value
SAE Grade		SAE J3000	75W-90
Density @15°C	kg/m^3	ASTM D4052	878
Kin. Viscosity @40°C	mm^2/s	ASTM D7042	94.2
Kin. Viscosity @100°C	mm^2/s	ASTM D7042	15.2
Viscosity Index		ASTM D2270	171
Brookfield Viscosity @-40°C	cP	ASTM D2983	150000
Flash Point COC	°C	ASTM D92	>201
Pour Point	°C	ASTM D97	-36

Date Issued: 20-12-2015	Supersedes:01-01-2014	Revision Nr.:1

Kyoto Japan Tire (Suisse) S.A
1 Cour de Rive, 1207 Geneva - Switzerland
Tel +41.22. 789 32 00, Fax +41.21.826 11 76
Email sales@kyotojap.com

Kyoto Japan Tire Corporation Ltd.
Tokyo - Japan
www.kyotojap.com

Kyoto Japan AUTO DSG

Product Code:
KJL1318

Kyoto Japan AUTO DSG is a high performance full synthetic long life ATF specially designed for use in the last generation DCT (Double Coupling Transmission) transmission of the VAG group and are characterized for fast and sportive shifting.

Kyoto Japan AUTO DSG is based on fully synthetic base in combination with a unique additive package to ensure the following properties:

- Excellent thermo- and oxidation stability.
- Excellent lubrication, even under extreme conditions.
- Very high protection against wear, corrosion and foam.
- High "shear stable".
- Very low Pour point, can be used by very cold temperatures.
- High Viscosity Index.

Kyoto Japan AUTO DSG exceeds the following performance criteria:

VW TL 521 82 BMW EU 83 22 2 148 578 BMW EU 83 22 2 148 579
VW G 052 529

Typical Analysis

Properties	Unit	Method	Typical Value
Density @15°C	kg/m^3	ASTM D4052	842
Kin. Viscosity @40°C	mm^2/s	ASTM D7042	34.7
Kin. Viscosity @100°C	mm^2/s	ASTM D7042	7.0
Viscosity Index		ASTM D2270	168
Flash Point COC	°C	ASTM D92	>201
Pour Point	°C	ASTM D97	-54
FZG Test, A/16, 6/90		DIN ISO 14635	>12

Date Issued: 20-12-2015	Supersedes:01-01-2014	Revision Nr.:1

Kyoto Japan Tire (Suisse) S.A
1 Cour de Rive, 1207 Geneva - Switzerland
Tel +41.22. 789 32 00, Fax +41.21.826 11 76
Email sales@kyotojap.com

Kyoto Japan Tire Corporation Ltd.
Tokyo - Japan
www.kyotojap.com

Kyoto Japan ATF VI

Product Code:

KJL1319

Kyoto Japan ATF VI is a very high graded automatic transmission fluid based on special selected synthetic base oils, with a high viscosity index and a number of selected additives to obtain the following properties:

- a very strong dispersion, therefore sludge is restricted to a minimum
- a very low pour point
- very good stability against oxidation and thermal properties
- a positive activity against wear, corrosion and foam
- specific friction properties
- a perfect compatibility with seals and non-ferro metals
- longer life time of the liquid
- exceeds the properties of Dexron III and II liquids
- red coloured

Kyoto Japan ATF VI may be used for automatic gear boxes, power steering units, torque converters and other equipment, for which an ATF is required, which exceeds ATF Dexron III and II. Its special composition causes a longer lifetime of this liquid compared with older Dexron types. This product cannot be used in DCT's and CVT's or when an oil with the Ford Type F/G specification is recommended.

Kyoto Japan ATF VI meets the requirements of:

- G.M. DEXRON-VI ,
- Jalos JASO 1A,
- Toyota ATF type WS
- VW TL 521 62,
- TL 501 60 ,
- Type T-III,
- Type T-IV,
- ZF M1375
- Daimler-Chrysler ATF+3, ATF+4,
- Ford MERCON LV,
- Nissan MATIC S,
- Mitsubishi Diamond ATF SP II
- In_x001F_niti MATIC SMATIC K,
- MATIC J,
- MATIC D,
- Hyundai SP-IV,
- Kia SP-IV,
- SP III,
- Acura ATF Z1

Typical Analysis	Unit	Method	Typical Value
Color			Red
Density @15°C	kg/m^3	ASTM D4052	843
Kin. Viscosity @40°C	mm^2/s	ASTM D7042	29.60
Kin. Viscosity @100°C	mm^2/s	ASTM D7042	5.9
Viscosity Index		ASTM D2270	149
Flash Point COC	°C	ASTM D92	212
Pour Point	°C	ASTM D97	-51
FZG Test, A/16, 6/90		DIN ISO 14635	>12

Date Issued: 20-12-2015	Supersedes:01-01-2014	Revision Nr.:1

Kyoto Japan Tire (Suisse) S.A
1 Cour de Rive, 1207 Geneva - Switzerland
Tel +41.22. 789 32 00, Fax +41.21.826 11 76
Email sales@kyotojap.com

Kyoto Japan Tire Corporation Ltd.
Tokyo - Japan
www.kyotojap.com

Kyoto Japan Multi CVT Fluid

Product Code:
KJL1320

Description :
A high performance synthetic fluid for modern continuously variable transmissions, based on synthetic base oils, formulated with special additives to obtain the following properties:
- a very high and stable viscosity index
- a very low pour point
- an excellent stability against oxidation
- a positive activity against wear, corrosion and foam
- ideal friction performance, for both CVT belt and CVT chain
- seal compatibility for better leakage prevention
- high superior anti-shudder performance
- extended service interval in combination with a longer transmission life

Application :
This high quality synthetic fluid is designed for application in continuously variable automatic gear boxes. The so called CVT's.

Performance Level :
Meets the requirements of
Toyota CVTF TC/FE, Nissan NS-1/NS-2/NS-3
Honda HMMF/HCF2, Mitsubishi SP-III/CVTF-J1
Subaru ECVT/iCVT, Daihatsu Ammix CVT
Suzuki CVTF TC/NS-2/CVT Green 1
Hyundai SP-III, Chrysler Jeep NS-2
BMW Mini 83220136376/83220429159
MB 236.20, Ford WSS-M2C928-A
VW G 052 180/G 052 516
JASO M358, Mopar CVTF+4

Typicals :
Density at 15 °C, kg/l : 0,848
Viscosity 40 °C, mm²/s : 35,40
Viscosity 100 °C, mm²/s : 7,30
Viscosity Index : 177
Flash Point COC, °C : 214
Pour Point, °C : -48
Total Base Number, mgKOH/g : 3,6

Kyoto Japan Tire (Suisse) S.A
1 Cour de Rive, 1207 Geneva - Switzerland
Tel +41.22. 789 32 00, Fax +41.21.826 11 76
Email sales@kyotojap.com
Kyoto Japan Tire Corporation Ltd.
Tokyo - Japan
www.kyotojap.com

Kyoto Japan Truck UHPD 5W-40

Product Code:
KJL1401

Kyoto Japan Truck UHPD 5W-40 is a high performance fully synthetic engine oil to be used in diesel engines in light- and heavy commercial vehicles with or without turbocharger. **Kyoto Japan Truck UHPD 5W-40** is designed for use in Euro-II, Euro-III and EURO-IV emission requirements and engines equipped with EGR and/or SCR exhaust after treatment system. **Kyoto Japan Truck UHPD 5W-40** may not been used in diesel engines equipped with a Diesel Particle Filter (DPF).

Kyoto Japan Truck UHPD 5W-40 is based on high performance synthetic base oil in combination with especially selected additive technology to ensure the following properties.

- Excellent thermal and oxidation stability.
- Excellent protection against forming of "Bore Ploshing".
- Suitable for Low emission engine equipped with EGR and SCR technology
- Excellent protection against wear, foam en corrosion.
- Low temperature properties, to ensure a smooth cold start.
- Extended oil drain interval possible

Kyoto Japan Truck UHPD 5W-40 exceeds the following performance criteria;

ACEA E4/E7	API CF	MAN M 3277	MB 228.5
MTU Type 3	Renauld RXD	Scania LFD 2	ACEA A3/B4

Typical Analysis

Properties	Unit	Method	Typical Value
SAE Grade		SAE J3000	5W-40
Density @15°C	kg/m^3	ASTM D4052	864
Kin. Viscosity @40°C	mm^2/s	ASTM D7042	102
Kin. Viscosity @100°C	mm^2/s	ASTM D7042	13.5
Viscosity Index		ASTM D2270	165
Viscosity CCS -30°C, max	Cp	ASTM D5293	6600
Flash Point COC	°C	ASTM D92	>201
Pour Point	°C	ASTM D97	-36
Total Base Number	mgKOH/g	ASTM D2896	16
Sulphated Ash	%Wt	ASTM D874	1.8

Date Issued: 20-12-2015	Supersedes:01-01-2014	Revision Nr.:1

Kyoto Japan Tire (Suisse) S.A
1 Cour de Rive, 1207 Geneva - Switzerland
Tel +41.22. 789 32 00, Fax +41.21.826 11 76
Email sales@kyotojap.com

Kyoto Japan Tire Corporation Ltd.
Tokyo - Japan
www.kyotojap.com

Kyoto Japan Truck EHPD 10W-40

Product Code:
KJL1402

Kyoto Japan Truck EHPD 10W-40 is a high performance semi synthetic engine oil to be used in diesel engines in light- and heavy commercial vehicles with or without turbocharger designed for use in Euro-II, Euro-III and EURO-IV emission requirements and engines equipped with EGR and/or SCR exhaust after treatment system. **Kyoto Japan Truck EHPD 10W-40** *is unsuitable for diesel engines equipped with a Diesel Particle Filter (DPF)*

Kyoto Japan Truck EHPD 10W-40 is based on high performance synthetic and mineral base oil in combination with a specially selected additive technology to ensure the following properties:

- Excellent thermal and oxidation stability.
- Excellent protection against forming of "Bore Polishing".
- Suitable for Low emission engine equipped with EGR and SCR technology
- Excellent protection against wear, foam en corrosion.
- Low temperature properties, to ensure a smooth cold start.
- Extended oil drain interval possible

Kyoto Japan Truck EHPD 10W-40 exceeds the following performance criteria:

Exceeds	MB-228.5	MAN M 3277	Renault RLD-2
	Volvo VDS-3	MACK EO-N	MTU Type 3
	Scania LDF-2		
	API CI-4	ACEA E7/E4	Cummins 20077/20078

Typical Analysis

Properties	Unit	Method	Typical Value
SAE Grade		SAE J300	10W-40
Density @15°C	kg/m^3	ASTM D4052	873
Kin. Viscosity @40°C	mm^2/s	ASTM D7042	99
Kin. Viscosity @100°C	mm^2/s	ASTM D7042	14.6
Viscosity Index		ASTM D2270	155
Viscosity CCS -25°C, max	cP	ASTM D5293	7000
Flash Point COC	°C	ASTM D92	>201
Pour Point	°C	ASTM D97	-33
Total Base Number	mgKOH/g	ASTM D2896	12.5
Sulphated Ash	%Wt	ASTM D874	1.6

Date Issued: 20-12-2015	Supersedes:01-01-2014	Revision Nr.:1

Kyoto Japan Tire (Suisse) S.A
1 Cour de Rive, 1207 Geneva - Switzerland
Tel +41.22. 789 32 00, Fax +41.21.826 11 76
Email sales@kyotojap.com

Kyoto Japan Tire Corporation Ltd.
Tokyo - Japan
www.kyotojap.com

Kyoto Japan Truck UHPD 5W-30

Product Code:
KJL1403

Kyoto Japan Truck UHPD 5W-30 is a high performance engine oil based on 100% synthetic technology to be used in diesel engines in light- and heavy commercial vehicles with or without turbocharger designed for use in Euro-II, Euro-III, EURO-IV and Euro-V emission requirements and engines equipped with EGR and/or SCR exhaust after treatment system. **Kyoto Japan Truck UHPD 5W-30** is not suitable for diesel engines equipped with a Diesel Particle Filter (DPF).
Kyoto Japan Truck UHPD 5W-30 is based on high performance synthetic base oil in combination with a specially selected additive technology to ensure the following properties:

- Excellent thermal and oxidation stability.
- Excellent protection against forming of "Bore Polishing".
- Suitable for Low emission engine equipped with EGR and SCR technology
- Excellent protection against wear, foam en corrosion.
- Low temperature properties, to ensure a smooth cold start.
- Extended oil drain interval possible

Kyoto Japan Truck UHPD 5W-30 exceeds the following performance criteria:

Exceed	MB-228.5	MAN M3277	MTU Type 3
	ACEA E7/E4	Mack EO-M	Renault RVI RXD
	Cummins 20076/20077/20078		Global DHD-1

Typical Analysis

Properties	**Unit**	**Method**	**Typical Value**
SAE Grade		SAE J300	5W-30
Density @15°C	kg/m^3	ASTM D4052	849
Kin. Viscosity @40°C	mm^2/s	ASTM D7042	69
Kin. Viscosity @100°C	mm^2/s	ASTM D7042	11.4
Viscosity Index		ASTM D2270	160
Viscosity CCS -30°C, max	Cp	ASTM D5293	6600
Flash Point COC	°C	ASTM D92	>201
Pour Point	°C	ASTM D97	-33
Total Base Number	mgKOH/g	ASTM D2896	15.5
Sulphated Ash	%Wt	ASTM D874	1.85

Date Issued: 20-12-2015	Supersedes:01-01-2014	Revision Nr.:1

Kyoto Japan Tire (Suisse) S.A
1 Cour de Rive, 1207 Geneva - Switzerland
Tel +41.22. 789 32 00, Fax +41.21.826 11 76
Email sales@kyotojap.com

Kyoto Japan Tire Corporation Ltd.
Tokyo - Japan
www.kyotojap.com

Kyoto Japan Truck UHPD 10W-40

Product Code:
KJL1404

Kyoto Japan Truck UHPD 10W-40 is a high performance fully synthetic engine oil to be used in diesel engines in light- and heavy commercial vehicles with or without turbocharger. **Kyoto Japan Truck UHPD 10W-40** is designed for use in Euro-II, Euro-III and EURO-IV emission requirements and engines equipped with EGR and/or SCR exhaust after treatment system. **Kyoto Japan Truck UHPD 10W-40** may not been used in diesel engines equipped with a Diesel Particle Filter (DPF). **Kyoto Japan Truck UHPD 10W-40** is based on high performance synthetic base oil in combination with especially selected additive technology to ensure the following properties.

- Excellent thermal and oxidation stability.
- Excellent protection against forming of "Bore Ploshing".
- Suitable for Low emission engine equipped with EGR and SCR technology
- Excellent protection against wear, foam en corrosion.
- Low temperature properties, to ensure a smooth cold start.
- Extended oil drain interval possible

Kyoto Japan Truck UHPD 10W-40 exceeds the following performance criteria;

Exceed	MB-228.5	MAN M 3277	MTU Type 3
	ACEA E7/E4	Mack EO-M	Renault RVI RXD
	Cummins 20076/20077/20078		Global DHD-1
	Scania LDF-3	Volvo VDS-3	

Typical Analysis

Properties	Unit	Method	Typical Value
Density @15°C	kg/m^3	ASTM D4052	876
Kin. Viscosity @40°C	mm^2/s	ASTM D7042	86
Kin. Viscosity @100°C	mm^2/s	ASTM D7042	13.1
Viscosity Index		ASTM D2270	152
Viscosity CCS -25°C, max	Cp	ASTM D5293	7000
Flash Point COC	°C	ASTM D92	>201
Pour Point	°C	ASTM D97	-33
Total Base Number	mgKOH/g	ASTM D2896	15.5
Sulphated Ash	%Wt	ASTM D874	1.85

Date Issued: 20-12-2015	Supersedes:01-01-2014	Revision Nr.:1

Kyoto Japan Tire (Suisse) S.A
1 Cour de Rive, 1207 Geneva - Switzerland
Tel +41.22. 789 32 00, Fax +41.21.826 11 76
Email sales@kyotojap.com

Kyoto Japan Tire Corporation Ltd.
Tokyo - Japan
www.kyotojap.com

Kyoto Japan Truck SCR 10W-40

Product Code:
KJL1405

Kyoto Japan Truck SCR 10W-40 is a fuel conserving super LOW SAPS high performance universal oil designed based on 100% synthetic technology for high loaded diesel engines in light- and heavy commercial vehicles working under severe operating conditions through the whole year and running on low Sulphur Diesel Fuel (max 50 ppm) for use in Euro-4 and Euro-5 engines equipped with Diesel Particle Filter (DPF). This product is also suitable for vehicles equipped with EGR and/or SCR after treatment systems.

Kyoto Japan Truck SCR 10W-40 is formulated on high quality refined synthetic base stock in combination with a special additive package to reach the following properties:

- Excellent thermal- and oxidation stability.
- Very good dispersity and detergency.
- High anti-foam, anti-wear and anti-corrosion properties.
- Excellent protection against "Bore Polishing".
- Extended drain intervals up to 150.000 km.
- Suitable for engines equipped with a Diesel Particle Filter (DPF)
- Fuel conserving

Kyoto Japan Truck SCR 10W-40 exceeds the following performance criteria:

Exceeds	MB-228.51	MAN M 3477	MAN M 3271
	Volvo VDS-3	MTU Type 3.1	
	ACEA E6/E7	Deutz DQC-III-05	Renaults RXD
	MAN M 3277 CRT		

Typical Analysis

Properties	Unit	Method	Typical Value
SAE Grade		SAE J3000	10W-40
Density @15°C	kg/m^3	ASTM D4052	863
Kin. Viscosity @40°C	mm^2/s	ASTM D7042	98
Kin. Viscosity @100°C	mm^2/s	ASTM D7042	14.5
Viscosity Index		ASTM D2270	145
Viscosity CCS @-25°, max.	cP	ASTM D5293	7000
Flash Point COC	°C	ASTM D92	210
Pour Point	°C	ASTM D97	-30
Total Base Number	mgKOH/g	ASTM D2896	10.1
Sulphated Ash	%Wt	ASTM D874	0.8

Date Issued: 20-12-2015	Supersedes:01-01-2014	Revision Nr.:1

Kyoto Japan Tire (Suisse) S.A
1 Cour de Rive, 1207 Geneva - Switzerland
Tel +41.22. 789 32 00, Fax +41.21.826 11 76
Email sales@kyotojap.com

Kyoto Japan Tire Corporation Ltd.
Tokyo - Japan
www.kyotojap.com

Kyoto Japan Truck HDX 10W-40

Product Code:
KJL1406

Kyoto Japan Truck HDX 10W-40 is an extra high performance universal semi synthetic engine oil designed for high loaded diesel engines in light- and heavy commercial vehicles working under severe operating conditions through the whole year for use in Euro-3, Euro-4 and Euro-5 engines equipped with EGR and/or SCR. This product is not suitable for vehicles equipped with DPF filters.
Kyoto Japan Truck HDX 10W-40 is formulated with high refined solvent mineral and synthetic base stock in combination with a special additive package to reach the following properties:

- Excellent thermal- and oxidation stability.
- Very good dispersity and detergency.
- High anti-foam, anti-wear and anti-corrosion properties.
- Excellent protection against Bore Polishing.
- Extended drain intervals.

Kyoto Japan Truck HDX 10W-40 exceeds the following performance criteria:

Exceeds	MB-228.3	MAN M 3275	Volvo VDS-3
	Renault RLD-2	Mack EO-N	
	API CI-4	ACEA E7	DDC 93K215
	Caterpillar ECF-1a, ECF-2	Global DHD-1	JASO DH-1
	Allison C4	MTU Type 2	Mack EO-M+
	Cummins CES 20077/20078	DAF HP-2	

Typical Analysis

Properties	Unit	Method	Typical Value
SAE Grade		SAE J3000	10W-40
Density @15°C	kg/m^3	ASTM D4052	873
Kin. Viscosity @40°C	mm^2/s	ASTM D7042	106
Kin. Viscosity @100°C	mm^2/s	ASTM D7042	14.2
Viscosity Index		ASTM D2270	135
Viscosity CCS @-25°, max.	cP	ASTM D5293	7000
Flash Point COC	°C	ASTM D92	201
Pour Point	°C	ASTM D97	-27
Total Base Number	mgKOH/g	ASTM D2896	10.4
Sulphated Ash	%Wt	ASTM D874	1.5

Date Issued: 20-12-2015	Supersedes:01-01-2014	Revision Nr.:1

Kyoto Japan Tire (Suisse) S.A
1 Cour de Rive, 1207 Geneva - Switzerland
Tel +41.22. 789 32 00, Fax +41.21.826 11 76
Email sales@kyotojap.com

Kyoto Japan Tire Corporation Ltd.
Tokyo - Japan
www.kyotojap.com

Kyoto Japan Truck HDX 15W-40

Product Code:
KJL1407

Kyoto Japan Truck HDX 15W-40 is an extra high performance universal engine oil designed for high loaded diesel engines in light- and heavy commercial vehicles working under severe operating conditions through the whole year for use in Euro-3, Euro-4 and Euro-5 engines equipped with EGR and/or SCR. This product is not suitable for vehicles equipped with DPF filters.

Kyoto Japan Truck HDX 15W-40 is formulated with high refined solvent mineral stock in combination with a special additive package to reach the following properties:

- Excellent thermal- and oxidation stability.
- Very good dispersity and detergency.
- High anti-foam, anti-wear and anti-corrosion properties.
- Excellent protection against Bore Polishing.
- Extended drain intervals.

Kyoto Japan Truck HDX 15W-40 exceeds the following performance criteria:

Exceeds	MB-228.3	MAN M 3275	Volvo VDS-3
	Renault RLD-2	Mack EO-N	
	API CI-4	ACEA E7	DDC 93K215
	Caterpillar ECF-1a, ECF-2	Global DHD-1	JASO DH-1
	Allison C4	MTU Type 2	Mack EO-M+
	Cummins CES 20077/20078	DAF HP-2	

Typical Analysis

Properties	Unit	Method	Typical Value
SAE Grade		SAE J3000	15W-40
Density @15°C	kg/m^3	ASTM D4052	870
Kin. Viscosity @40°C	mm^2/s	ASTM D7042	103
Kin. Viscosity @100°C	mm^2/s	ASTM D7042	14.5
Viscosity Index		ASTM D2270	150
Viscosity CCS @-20°, max.	cP	ASTM D5293	7000
Flash Point COC	°C	ASTM D92	201
Pour Point	°C	ASTM D97	-39
Total Base Number	mgKOH/g	ASTM D2896	10.4
Sulphated Ash	%Wt	ASTM D874	1.5

Date Issued: 20-12-2015	Supersedes:01-01-2014	Revision Nr.:1

Kyoto Japan Tire (Suisse) S.A
1 Cour de Rive, 1207 Geneva - Switzerland
Tel +41.22. 789 32 00, Fax +41.21.826 11 76
Email sales@kyotojap.com

Kyoto Japan Tire Corporation Ltd.
Tokyo - Japan
www.kyotojap.com

Kyoto Japan Truck HDL 15W-40

Product Code:

KJL1408

Kyoto Japan Truck HDL 15W-40 is a high performance universal mineral engine oil designed for high loaded diesel engines in light- and heavy commercial vehicles working under severe operating conditions through the whole year and is formulated for use in Euro-1, Euro-2 and Euro-3 engines equipped with EGR and/or SCR. This product is not suitable for vehicles equipped with DPF filters.

Kyoto Japan Truck HDL 15W-40 is formulated on high refined solvent base stock in combination with a special additive package to reach the following properties:

- Excellent thermal- and oxidation stability.
- Very good dispersity and detergency.
- High anti-foam, anti-wear and anti-corrosion properties.
- Excellent protection against Bore Polishing.
- Not suitable for engine equipped with a Diesel Particle Filter (DPF).

Kyoto Japan Truck HDL 15W-40 exceeds the following performance criteria:

Exceeds	MB-228.3	MAN M 3275	
	API CG-4/CF	ACEA E2 (level)	Volvo VDS
	MTU Type 2	Mack EO-L	

Typical Analysis

Properties	Unit	Method	Typical Value
SAE Grade		SAE J3000	15W-40
Density @15°C	kg/m^3	ASTM D4052	884
Kin. Viscosity @40°C	mm^2/s	ASTM D7042	110
Kin. Viscosity @100°C	mm^2/s	ASTM D7042	14.4
Viscosity Index		ASTM D2270	>120
Viscosity CCS @-20°, max.	cP	ASTM D5293	7000
Flash Point COC	°C	ASTM D92	225
Pour Point	°C	ASTM D97	-24
Total Base Number	mgKOH/g	ASTM D2896	8.7
Sulphated Ash	%Wt	ASTM D874	1.26

Date Issued: 20-12-2015	Supersedes:01-01-2014	Revision Nr.:1

Kyoto Japan Tire (Suisse) S.A
1 Cour de Rive, 1207 Geneva - Switzerland
Tel +41.22. 789 32 00, Fax +41.21.826 11 76
Email sales@kyotojap.com

Kyoto Japan Tire Corporation Ltd.
Tokyo - Japan
www.kyotojap.com

Kyoto Japan Truck HDL 15W-50

Product Code:
KJL1408-A

Kyoto Japan Truck HDL 15W-50 *is a high performance universal mineral engine oil designed for high loaded diesel engines in light- and heavy commercial vehicles working under severe operating conditions through the whole year and is formulated for use in*

Kyoto Japan Truck HDL 15W-50 *is formulated on high refined solvent base stock in combination with a special additive package to reach the following properties:*

- *Excellent thermal- and oxidation stability.*
- *Very good dispersity and detergency.*
- *High anti-foam, anti-wear and anti-corrosion properties.*
- *Excellent protection against Bore Polishing.*
- *Not suitable for engine equipped with a Diesel Particle Filter (DPF).*

Kyoto Japan Truck HDL 15W-50 *exceeds the following performance criteria:*

Exceeds

Typical Analysis

Properties	***Unit***	***Method***	***Typical Value***
SAE Grade		*SAE J3000*	*15W-50*
Density @15°C	*kg/m^3*	*ASTM D4052*	
Kin. Viscosity @40°C	*mm^2/s*	*ASTM D7042*	
Kin. Viscosity @100°C	*mm^2/s*	*ASTM D7042*	
Viscosity Index		*ASTM D2270*	
Viscosity CCS @-20°, max.	*cP*	*ASTM D5293*	
Flash Point COC	*°C*	*ASTM D92*	
Pour Point	*°C*	*ASTM D97*	
Total Base Number	*mgKOH/g*	*ASTM D2896*	
Sulphated Ash	*%Wt*	*ASTM D874*	

Date Issued: 27-12-2015	*Supersedes:01-01-2014*	*Revision Nr.:1*

Kyoto Japan Tire (Suisse) S.A
1 Cour de Rive, 1207 Geneva - Switzerland
Tel +41.22. 789 32 00, Fax +41.21.826 11 76
Email sales@kyotojap.com

Kyoto Japan Tire Corporation Ltd.
Tokyo - Japan
www.kyotojap.com

Kyoto Japan Truck HDL 10W-40

Product Code:
KJL1409

Kyoto Japan Truck HDL 10W-40 is a high performance universal semi synthetic oil designed for high loaded diesel engines in light- and heavy commercial vehicles working under severe operating conditions through the whole year and is formulated for use in Euro-1, Euro-2 and Euro-35 engines equipped with EGR and/or SCR. This product is not suitable for vehicles equipped with DPF filters.

Kyoto Japan Truck HDL 10W-40 is formulated on high refined solvent mineral and synthetic base stock in combination with a special additive package to reach the following properties:

- Excellent thermal- and oxidation stability.
- Very good dispersity and detergency.
- High anti-foam, anti-wear and anti-corrosion properties.
- Excellent protection against Bore Polishing.
- Not suitable for engine equipped with a Diesel Particle Filter (DPF)

Kyoto Japan Truck HDL 10W-40 exceeds the following performance criteria:

API CH-4/CF	ACEA E2 (level)	MB 228.3	MAN M 3275
Volvo VDS-2	MTU Type 2	Mack EO-L	Allison C-4
API SL	ACEA A3/B4	MB 229.1	

Typical Analysis

Properties	Unit	Method	Typical Value
SAE Grade		SAE J3000	10W-40
Density @15°C	kg/m^3	ASTM D4052	870
Kin. Viscosity @40°C	mm^2/s	ASTM D7042	87
Kin. Viscosity @100°C	mm^2/s	ASTM D7042	13,5
Viscosity Index		ASTM D2270	158
Viscosity CCS @-25°, max.	cP	ASTM D5293	7000
Flash Point COC	°C	ASTM D92	>201
Pour Point	°C	ASTM D97	-39
Total Base Number	mgKOH/g	ASTM D2896	8.7
Sulphated Ash	%Wt	ASTM D874	1.26

Date Issued: 20-12-2015	Supersedes:01-01-2014	Revision Nr.:1

Kyoto Japan Tire (Suisse) S.A
1 Cour de Rive, 1207 Geneva - Switzerland
Tel +41.22. 789 32 00, Fax +41.21.826 11 76
Email sales@kyotojap.com

Kyoto Japan Tire Corporation Ltd.
Tokyo - Japan
www.kyotojap.com

Kyoto Japan Truck HDL 20W-50

Product Code:
KJL1410

Kyoto Japan Truck HDL 20W-50 is a high performance universal mineral engine oil designed for high loaded diesel engines in light- and heavy commercial vehicles working under severe operating conditions through the whole year and is formulated for use in Euro-1, Euro-2 and Euro-3 engines equipped with EGR and/or SCR. This product is not suitable for vehicles equipped with DPF filters.

Kyoto Japan Truck HDL 20W-50 is formulated on high refined solvent base stock in combination with a special additive package to reach the following properties:

- Excellent thermal- and oxidation stability.
- Very good dispersity and detergency.
- High anti-foam, anti-wear and anti-corrosion properties.
- Excellent protection against Bore Polishing.
- Not suitable for engine equipped with a Diesel Particle Filter (DPF).

Kyoto Japan Truck HDL 20W-50 exceeds the following performance criteria:

API CG-4/CF	ACEA E2 (level)	MB 228.3	MAN M 3275
Volvo VDS	MTU Type 2	Mack EO-L	

Typical Analysis

Properties	Unit	Method	Typical Value
SAE Grade		SAE J3000	20W-50
Density @15°C	kg/m^3	ASTM D4052	890
Kin. Viscosity @40°C	mm^2/s	ASTM D7042	135
Kin. Viscosity @100°C	mm^2/s	ASTM D7042	16.8
Viscosity Index		ASTM D2270	130
Viscosity CCS @-15°, max.	cP	ASTM D5293	9500
Flash Point COC	°C	ASTM D92	>201
Pour Point	°C	ASTM D97	-33
Total Base Number	mgKOH/g	ASTM D2896	8.7
Sulphated Ash	%Wt	ASTM D874	1.26

Date Issued: 20-12-2015	Supersedes:01-01-2014	Revision Nr.:1

Kyoto Japan Tire (Suisse) S.A
1 Cour de Rive, 1207 Geneva - Switzerland
Tel +41.22. 789 32 00, Fax +41.21.826 11 76
Email sales@kyotojap.com

Kyoto Japan Tire Corporation Ltd.
Tokyo - Japan
www.kyotojap.com

Kyoto Rail ROAD 135

Product Code:
KJL1411

Kyoto Rail ROAD 135 is a high performance, zinc-free and chlorine-free oil specially designed to provide excellent engine cleanliness and oil filter life in the modern railroad diesel locomotive engines.

Kyoto Rail ROAD 135 is based on high quality virgin mineral base oil in combination with a unique additive package to ensure the following properties:

- Exceptional detergency and dispersity provides excellent engine cleanliness, especially engine top decks.
- Excellent retention of TBN facilitates extended drain intervals.
- High thermo-oxidative.
- Zinc-free formulation protects silver bearings against corrosion.
- Non-chlorinated additive package helps in reducing used oil disposal costs.

Kyoto Rail ROAD 135 exceeds the following performance criteria:

API CF / CF-2 LMOA Generation 5 EMD of General Motors
GE as Generation 4 Long Life Oils GE Diesel Engines

Typical Analysis

Properties	Unit	Method	Typical Value
SAE Grade		SAE J 300	40
Density @15°C	kg/m^3	ASTM D4052	898
Kin. Viscosity @40°C	mm^2/s	ASTM D7042	155
Kin. Viscosity @100°C	mm^2/s	ASTM D7042	15.5
Viscosity Index		ASTM D2270	102
Flash Point COC	°C	ASTM D92	>201
Pour Point	°C	ASTM D97	-18
Total Base Number	mgKOH/g	ASTM D2896	13
Sulphated Ash	%Wt	ASTM D874	1.5

Date Issued: 20-12-2015	Supersedes:01-01-2014	Revision Nr.:1

Kyoto Japan Tire (Suisse) S.A
1 Cour de Rive, 1207 Geneva - Switzerland
Tel +41.22. 789 32 00, Fax +41.21.826 11 76
Email sales@kyotojap.com

Kyoto Japan Tire Corporation Ltd.
Tokyo - Japan
www.kyotojap.com

Kyoto Japan Truck SHPD 15W-40

Product Code:
KJL1412

Kyoto Japan Truck SHPD 15W-40 is a fuel saving MID SAPS super high performance universal oil based on 100% synthetic technology designed for high loaded diesel engines in light- and heavy commercial vehicles working under severe operating conditions through the whole year for use in Euro-4 and Euro-5 engines equipped with a Diesel Particle Filter (DPF) and suited for diesel engines equipped with EGR and/or SCR after treatment system.

Kyoto Japan Truck SHPD 15W-40 is formulated with high refined synthetic base stock in combination with a unique additive package to reach the following properties:

- Excellent thermal- and oxidation stability.
- Very good dispersity and detergency.
- High anti-foam, anti-wear and anti-corrosion properties.
- Excellent protection against "Bore Polishing".
- Extended drain intervals.
- Complies with strictest European emission regulation.

Kyoto Japan Truck SHPD 15W-40 exceeds the following performance criteria:

Exceeds	MB-228.31	Volvo VDS-4	MAN M3575
	Renault VI RLD-3	Mack EO-O+	
	ACEA E9/E7	API CJ-4	Cummins CES 20081
	Cat ECF-3/2/1a	DCC PGQS 93K218	Deutz DQC III-05

Typical Analysis

Properties	Unit	Method	Typical Value
SAE Grade		SAE J3000	15W-40
Density @15°C	kg/m^3	ASTM D4052	862
Kin. Viscosity @40°C	mm^2/s	ASTM D7042	114
Kin. Viscosity @100°C	mm^2/s	ASTM D7042	14.9
Viscosity Index		ASTM D2270	135
Viscosity CCS @-20°, max.	cP	ASTM D5293	7000
Flash Point COC	°C	ASTM D92	201
Pour Point	°C	ASTM D97	-27
Total Base Number	mgKOH/g	ASTM D2896	8.4
Sulphated Ash	%Wt	ASTM D874	0.96

Date Issued: 20-12-2015	Supersedes:01-01-2014	Revision Nr.:1

Kyoto Japan Tire (Suisse) S.A
1 Cour de Rive, 1207 Geneva - Switzerland
Tel +41.22. 789 32 00, Fax +41.21.826 11 76
Email sales@kyotojap.com

Kyoto Japan Tire Corporation Ltd.
Tokyo - Japan
www.kyotojap.com

Kyoto Japan Truck SHPD 15W-40 JASO DH-2

Product Code:

KJL1412-A

Kyoto Japan Truck SHPD 15W-40 is a fuel saving MID SAPS super high performance universal oil based on 100% synthetic technology designed for high loaded diesel engines in light- and heavy commercial vehicles working under severe operating conditions through the whole year for use in Euro-4 and Euro-5 engines equipped with a Diesel Particle Filter (DPF) and suited for diesel engines equipped with EGR and/or SCR after treatment system.

Kyoto Japan Truck SHPD 15W-40 is formulated with high refined synthetic base stock in combination with a unique additive package to reach the following properties:

- Excellent thermal- and oxidation stability.
- Very good dispersity and detergency.
- High anti-foam, anti-wear and anti-corrosion properties.
- Excellent protection against "Bore Polishing".
- Extended drain intervals.
- Complies with strictest European emission regulation.

Kyoto Japan Truck SHPD 15W-40 exceeds the following performance criteria:

Exceeds	MB-228.31	Volvo VDS-4	MAN M3575
	Renault VI RLD-3	Mack EO-O+	**JASO DH-2**
	ACEA E9/E7	API CJ-4	Cummins CES 20081
	Cat ECF-3/2/1a	DCC PGQS 93K218	Deutz DQC III-05

Typical Analysis

Properties	Unit	Method	Typical Value
SAE Grade		SAE J3000	15W-40
Density @15°C	kg/m^3	ASTM D4052	862
Kin. Viscosity @40°C	mm^2/s	ASTM D7042	114
Kin. Viscosity @100°C	mm^2/s	ASTM D7042	14.9
Viscosity Index		ASTM D2270	135
Viscosity CCS @-20°, max.	cP	ASTM D5293	7000
Flash Point COC	°C	ASTM D92	201
Pour Point	°C	ASTM D97	-27
Total Base Number	mgKOH/g	ASTM D2896	8.4
Sulphated Ash	%Wt	ASTM D874	0.96

Date Issued: 20-12-2015	Supersedes:01-01-2014	Revision Nr.:1

Kyoto Japan Tire (Suisse) S.A
1 Cour de Rive, 1207 Geneva - Switzerland
Tel +41.22. 789 32 00, Fax +41.21.826 11 76
Email sales@kyotojap.com

Kyoto Japan Tire Corporation Ltd.
Tokyo - Japan
www.kyotojap.com

Kyoto Japan Truck SHPD 10W-30

Product Code:
KJL1413

Kyoto Japan Truck SHPD 10W-30 is a fuel saving MID SAPS super high performance universal oil based on 100% synthetic technology designed for high loaded diesel engines in light- and heavy commercial vehicles working under severe operating conditions through the whole year for use in Euro-4 and Euro-5 engines equipped with a Diesel Particle Filter (DPF) and suited for diesel engines equipped with EGR and/or SCR after treatment system.

Kyoto Japan Truck SHPD 10W-30 is formulated with high refined synthetic base stock in combination with a unique additive package to reach the following properties:

- Excellent thermal- and oxidation stability.
- Very good dispersity and detergency.
- High anti-foam, anti-wear and anti-corrosion properties.
- Excellent protection against "Bore Polishing".
- Extended drain intervals.
- Complies with strictest European emission regulation.

Kyoto Japan Truck SHPD 10W-30 exceeds the following performance criteria:

Exceeds	MB-228.31	Volvo VDS-4	MAN M3575
	Renault VI RLD-3	Mack EO-O+	
	ACEA E9/E7	API CJ-4	Cummins CES 20081
	Cat ECF-3/2/1a	DCC PGQS 93K218	Deutz DQC III-05

Typical Analysis

Properties	Unit	Method	Typical Value
SAE Grade		SAE J3000	10W-30
Density @15°C	kg/m^3	ASTM D4052	853
Kin. Viscosity @40°C	mm^2/s	ASTM D7042	84
Kin. Viscosity @100°C	mm^2/s	ASTM D7042	11.0
Viscosity Index		ASTM D2270	>125
Viscosity CCS @-25°, max.	cP	ASTM D5293	7000
Flash Point COC	°C	ASTM D92	201
Pour Point	°C	ASTM D97	-30
Total Base Number	mgKOH/g	ASTM D2896	8.4
Sulphated Ash	%Wt	ASTM D874	0.96

Date Issued: 20-12-2015	Supersedes:01-01-2014	Revision Nr.:1

Kyoto Japan Tire (Suisse) S.A
1 Cour de Rive, 1207 Geneva - Switzerland
Tel +41.22. 789 32 00, Fax +41.21.826 11 76
Email sales@kyotojap.com

Kyoto Japan Tire Corporation Ltd.
Tokyo - Japan
www.kyotojap.com

Kyoto Japan Truck Low Saps 5W30

Product Code:
KJL1414

Kyoto Japan Truck Low Saps 5W30 is a fuel conserving super high performance universal oil designed based on 100% synthetic technology for high loaded diesel engines in light- and heavy commercial vehicles working under severe operating conditions through the whole year and running on low Sulphur Diesel Fuel (max. 50 ppm). **Kyoto Japan Truck Low Saps 5W30** is developed for use in Euro-4 and Euro-5 engines equipped with Diesel Particle Filter (DPF). This product is also suitable for vehicles equipped with EGR and/or SCR after treatment systems.

Kyoto Japan Truck Low Saps 5W30 is formulated on high refined synthetic base stock in combination with an special additive package to reach the following properties.

- Excellent thermal- and oxidation stability.
- Very good dispersity and detergency.
- High anti-foam, anti-wear and anti-corrosion properties.
- Excellent protection against "Bore Polishing".
- Extended drain intervals up to 150.000 km.
- Suitable for engines equipped with a Diesel Particle Filter (DPF)
- Fuel conserving

Kyoto Japan Truck Low Saps 5W30 exceeds the following performance criteria:

ACEA E6/E7	API CI-4	MB-228.51	MAN M3477
MAN M 3271	MACK EO-N	Volvo VDS-3	MTU Type 3.1
Cummins CES 20076/20077		Renault RLD-2/RXD/RDG	Deutz DQC-III-5-LA

Typical Analysis

Properties	Unit	Method	Typical Value
SAE Grade		SAE J3000	5W-30
Density @15°C	kg/m^3	ASTM D4052	884
Kin. Viscosity @40°C	mm^2/s	ASTM D7042	76
Kin. Viscosity @100°C	mm^2/s	ASTM D7042	12.0
Viscosity Index		ASTM D2270	>145
Viscosity CCS @-30°, max.	cP	ASTM D5293	6600
Flash Point COC	°C	ASTM D92	>218
Pour Point	°C	ASTM D97	-36
Total Base Number	mgKOH/g	ASTM D2896	10.1
Sulphated Ash	%Wt	ASTM D874	0.8

Date Issued: 20-12-2015	Supersedes:01-01-2014	Revision Nr.:1

Kyoto Japan Tire (Suisse) S.A
1 Cour de Rive, 1207 Geneva - Switzerland
Tel +41.22. 789 32 00, Fax +41.21.826 11 76
Email sales@kyotojap.com

Kyoto Japan Tire Corporation Ltd.
Tokyo - Japan
www.kyotojap.com

Kyoto Japan Truck CF 10

Product Code:
KJL1415

Kyoto Japan Truck CF 10 is a heavy duty diesel engine oil developed to meet the requirements of a variety of diesel engines operating under severe conditions.

Kyoto Japan Truck CF 10 is suitable for use in a wide range of on- and off-highway applications where an API CF oil is recommended.

Kyoto Japan Truck CF 10 is based on high quality refined virgin base oil in combination with a special additive package to ensure the following properties:

- High thermal and oxidation stability.
- Effective in preventing from wear, corrosion and foam.
- High dispersity and detergency properties.

Kyoto Japan Truck CF 10 exceeds the following performance criteria:

API SF/CF MTU Type 2 CCMC G2/D1 MIL-L-46152

Typical Analysis

Properties	Unit	Method	Typical Value
SAE Grade		SAE J3000	10W
Density @15°C	kg/m^3	ASTM D4052	865
Kin. Viscosity @40°C	mm^2/s	ASTM D7042	38.5
Kin. Viscosity @100°C	mm^2/s	ASTM D7042	6.4
Viscosity Index		ASTM D2270	125
Flash Point COC	°C	ASTM D92	>201
Pour Point	°C	ASTM D97	-33
Total Base Number	mgKOH/g	ASTM D2896	10.5

Date Issued: 20-12-2015	Supersedes:01-01-2014	Revision Nr.:1

Kyoto Japan Tire (Suisse) S.A
1 Cour de Rive, 1207 Geneva - Switzerland
Tel +41.22. 789 32 00, Fax +41.21.826 11 76
Email sales@kyotojap.com

Kyoto Japan Tire Corporation Ltd.
Tokyo - Japan
www.kyotojap.com

Kyoto Japan Truck CF 20W-20

Product Code:
KJL1416

Kyoto Japan Truck CF 20W-20 is a heavy duty diesel engine oil developed to meet the requirements of a variety of diesel engines operating under severe conditions.

Kyoto Japan Truck CF 20W-20 is suitable for use in a wide range of on- and off-highway applications where an API CF oil is recommended.

Kyoto Japan Truck CF 20W-20 is based on high quality refined virgin base oil in combination with a special additive package to ensure the following properties:

- High thermal and oxidation stability.
- Effective in preventing from wear, corrosion and foam.
- High dispersity and detergency properties.

Kyoto Japan Truck CF 20W-20 exceeds the following performance criteria:

API SF/CF MTU Type 2 CCMC G2/D1 MIL-L-46152

Typical Analysis

Properties	Unit	Method	Typical Value
SAE Grade		SAE J3000	20W-20
Density @15°C	kg/m^3	ASTM D4052	884
Kin. Viscosity @40°C	mm^2/s	ASTM D7042	59.5
Kin. Viscosity @100°C	mm^2/s	ASTM D7042	8.3
Viscosity Index		ASTM D2270	105
Flash Point COC	°C	ASTM D92	>201
Pour Point	°C	ASTM D97	-33
Total Base Number	mgKOH/g	ASTM D2896	10.5

Date Issued: 20-12-2015	Supersedes:01-01-2014	Revision Nr.:1

Kyoto Japan Tire (Suisse) S.A
1 Cour de Rive, 1207 Geneva - Switzerland
Tel +41.22. 789 32 00, Fax +41.21.826 11 76
Email sales@kyotojap.com

Kyoto Japan Tire Corporation Ltd.
Tokyo - Japan
www.kyotojap.com

Kyoto Japan Truck CF 30

Product Code:
KJL1417

Kyoto Japan Truck CF 30 is a heavy duty diesel engine oil developed to meet the requirements of a variety of diesel engines operating under severe conditions.

Kyoto Japan Truck CF 30 is suitable for use in a wide range of on- and off-highway applications where an API CF oil is recommended.

Kyoto Japan Truck CF 30 is based on high quality refined virgin base oil in combination with a special additive package to ensure the following properties:

- High thermal and oxidation stability.
- Effective in preventing from wear, corrosion and foam.
- High dispersity and detergency properties.

Kyoto Japan Truck CF 30 exceeds the following performance criteria:

API SF/CF MTU Type 2 CCMC G2/D1 MIL-L-46152

Typical Analysis

Properties	Unit	Method	Typical Value
SAE Grade		SAE J3000	30
Density @15°C	kg/m^3	ASTM D4052	893
Kin. Viscosity @40°C	mm^2/s	ASTM D7042	104.5
Kin. Viscosity @100°C	mm^2/s	ASTM D7042	11.5
Viscosity Index		ASTM D2270	99
Flash Point COC	°C	ASTM D92	>201
Pour Point	°C	ASTM D97	-27
Total Base Number	mgKOH/g	ASTM D2896	10.5

Date Issued: 20-12-2015	Supersedes:01-01-2014	Revision Nr.:1

Kyoto Japan Tire (Suisse) S.A
1 Cour de Rive, 1207 Geneva - Switzerland
Tel +41.22. 789 32 00, Fax +41.21.826 11 76
Email sales@kyotojap.com

Kyoto Japan Tire Corporation Ltd.
Tokyo - Japan
www.kyotojap.com

Kyoto Japan Truck CF 40

Product Code:
KJL1418

Kyoto Japan Truck CF 40 is a heavy duty diesel engine oil developed to meet the requirements of a variety of diesel engines operating under severe conditions.

Kyoto Japan Truck CF 40 is suitable for use in a wide range of on- and off-highway applications where an API CF oil is recommended.

Kyoto Japan Truck CF 40 is based on high quality refined virgin base oil in combination with a special additive package to ensure the following properties:

- High thermal and oxidation stability.
- Effective in preventing from wear, corrosion and foam.
- High dispersity and detergency properties.

Kyoto Japan Truck CF 40 exceeds the following performance criteria:

API SF/CF MTU Type 2 CCMC G2/D1 MIL-L-46152

Typical Analysis

Properties	Unit	Method	Typical Value
SAE Grade		SAE J3000	40
Density @15°C	kg/m^3	ASTM D4052	898
Kin. Viscosity @40°C	mm^2/s	ASTM D7042	152
Kin. Viscosity @100°C	mm^2/s	ASTM D7042	14.5
Viscosity Index		ASTM D2270	99
Flash Point COC	°C	ASTM D92	>201
Pour Point	°C	ASTM D97	-24
Total Base Number	mgKOH/g	ASTM D2896	10.5

Date Issued: 20-12-2015	Supersedes:01-01-2014	Revision Nr.:1

Kyoto Japan Tire (Suisse) S.A
1 Cour de Rive, 1207 Geneva - Switzerland
Tel +41.22. 789 32 00, Fax +41.21.826 11 76
Email sales@kyotojap.com

Kyoto Japan Tire Corporation Ltd.
Tokyo - Japan
www.kyotojap.com

Kyoto Japan Truck CF 50

Product Code:
KJL1419

Kyoto Japan Truck CF 50 is a heavy duty diesel engine oil developed to meet the requirements of a variety of diesel engines operating under severe conditions.

Kyoto Japan Truck CF 50 is suitable for use in a wide range of on- and off-highway applications where an API CF oil is recommended.

Kyoto Japan Truck CF 50 is based on high quality refined virgin base oil in combination with a special additive package to ensure the following properties:

- High thermal and oxidation stability.
- Effective in preventing from wear, corrosion and foam.
- High dispersity and detergency properties.

Kyoto Japan Truck CF 50 exceeds the following performance criteria:

API SF/CF MTU Type 2 CCMC G2/D1 MIL-L-46152

Typical Analysis

Properties	Unit	Method	Typical Value
SAE Grade		SAE J3000	50
Density @15°C	kg/m^3	ASTM D4052	900
Kin. Viscosity @40°C	mm^2/s	ASTM D7042	212
Kin. Viscosity @100°C	mm^2/s	ASTM D7042	18.8
Viscosity Index		ASTM D2270	99
Flash Point COC	°C	ASTM D92	>201
Pour Point	°C	ASTM D97	-15
Total Base Number	mgKOH/g	ASTM D2896	10.5

Date Issued: 20-12-2015	Supersedes:01-01-2014	Revision Nr.:1

Kyoto Japan Tire (Suisse) S.A
1 Cour de Rive, 1207 Geneva - Switzerland
Tel +41.22. 789 32 00, Fax +41.21.826 11 76
Email sales@kyotojap.com

Kyoto Japan Tire Corporation Ltd.
Tokyo - Japan
www.kyotojap.com

Kyoto Japan Truck SLA 10W40

Product Code:
KJL1420

Kyoto Japan Truck SLA 10W40 is a fuel conserving super high performance LOW SAPS oil based on 100% synthetic technology designed for high loaded diesel engines in light- and heavy commercial vehicles working under severe operating conditions through the whole year and running on low Sulphur Diesel Fuel (max. 50 ppm). **Kyoto Japan Truck SLA 10W40** is formulated for use in Euro-4, Euro-5 and Euro-6 engines equipped with Diesel Particle Filter (DPF). This product is also suitable for vehicles equipped with EGR and/or SCR after treatment systems.

Kyoto Japan Truck SLA 10W40 is formulated on high refined synthetic base stock in combination with an special additive package to reach the following properties.

- Excellent thermal- and oxidation stability.
- Very good dispersity and detergency.
- High anti-foam, anti-wear and anti-corrosion properties.
- Excellent protection against "Bore Polishing".
- Extended drain intervals up to 150.000 km.
- Suitable for engines equipped with a Diesel Particle Filter (DPF)
- Fuel conserving

Kyoto Japan Truck SLA 10W40 exceeds the following performance criteria:

ACEA E6 MB 228.51 MTU Type 3.1 MAN M3477
Scania Low Ash

Typical Analysis

Properties	Unit	Method	Typical Value
SAE Grade		SAE J3000	10W-40
Density @15°C	kg/m^3	ASTM D4052	866
Kin. Viscosity @40°C	mm^2/s	ASTM D7042	76
Kin. Viscosity @100°C	mm^2/s	ASTM D7042	14.5
Viscosity Index		ASTM D2270	145
Viscosity CCS @-25°, max.	cP	ASTM D5293	7000
Flash Point COC	°C	ASTM D92	210
Pour Point	°C	ASTM D97	-36
Total Base Number	mgKOH/g	ASTM D2896	7.6
Sulphated Ash	%Wt	ASTM D874	0.6

Date Issued: 20-12-2015	Supersedes:01-01-2014	Revision Nr.:1

Kyoto Japan Tire (Suisse) S.A
1 Cour de Rive, 1207 Geneva - Switzerland
Tel +41.22. 789 32 00, Fax +41.21.826 11 76
Email sales@kyotojap.com

Kyoto Japan Tire Corporation Ltd.
Tokyo - Japan
www.kyotojap.com

Kyoto Japan Truck HDX 20W-50

Product Code:
KJL1421

Kyoto Japan Truck HDX 20W-50 is an extra high performance universal engine oil designed for high loaded diesel engines in light- and heavy commercial vehicles working under severe operating conditions through the whole year for use in Euro-3, Euro-4 and Euro-5 engines equipped with EGR and/or SCR. This product is not suitable for vehicles equipped with DPF filters.

Kyoto Japan Truck HDX 20W-50 is formulated with high refined solvent mineral base stock in combination with a special additive package to reach the following properties.

- Excellent thermal- and oxidation stability.
- Very good dispersity and detergency.
- High anti-foam, anti-wear and anti-corrosion properties.
- Excellent protection against Bore Polishing.
- Extended drain intervals possible.

Kyoto Japan Truck HDX 20W-50 exceeds the following performance criteria:

API CI-4	MB 228.3	MAN M 3275	Volvo VDS-3
ACEA E7	Renault RLD-2	Mack EO-N	Allison C4
DDC 93K215	Caterpillar ECF-1a, ECF-2	Global DHD-1	JASO DH-1
MTU Type 2	Cummins CES 20077/20078	DAF HP-2	Mack EO-M+

Typical Analysis

Properties	Unit	Method	Typical Value
SAE Grade		SAE J3000	20W-50
Density @15°C	kg/m^3	ASTM D4052	894
Kin. Viscosity @40°C	mm^2/s	ASTM D7042	152
Kin. Viscosity @100°C	mm^2/s	ASTM D7042	18.5
Viscosity Index		ASTM D2270	148
Viscosity CCS @-15°, max.	cP	ASTM D5293	9500
Flash Point COC	°C	ASTM D92	201
Pour Point	°C	ASTM D97	-24
Total Base Number	mgKOH/g	ASTM D2896	10.4
Sulphated Ash	%Wt	ASTM D874	1.5

Date Issued: 20-12-2015	Supersedes:01-01-2014	Revision Nr.:1

Kyoto Japan Tire (Suisse) S.A
1 Cour de Rive, 1207 Geneva - Switzerland
Tel +41.22. 789 32 00, Fax +41.21.826 11 76
Email sales@kyotojap.com

Kyoto Japan Tire Corporation Ltd.
Tokyo - Japan
www.kyotojap.com

Kyoto Japan Truck UHPD E6 10W40

Product Code:
KJL1422

Kyoto Japan Truck UHPD E6 10W40 is a fuel conserving super high performance universal oil based on 100% synthetic technology designed for high loaded diesel engines in light- and heavy commercial vehicles working under severe operating conditions through the whole year and running on low Sulphur Diesel Fuel (max. 50 ppm). **Kyoto Japan Truck UHPD E6 10W40** is formulated for use in Euro-4, Euro-5 and Euro-6 engines equipped with Diesel Particle Filter (DPF). This product is also suitable for vehicles equipped with EGR and/or SCR after treatment systems.
Kyoto Japan Truck UHPD E6 10W40 is formulated on high refined synthetic base stock in combination with an special additive package to reach the following properties.

- Excellent thermal- and oxidation stability.
- Very good dispersity and detergency.
- High anti-foam, anti-wear and anti-corrosion properties.
- Excellent protection against "Bore Polishing".
- Extended drain intervals up to 150.000 km.
- Suitable for engines equipped with a Diesel Particle Filter (DPF)
- Fuel conserving

Kyoto Japan Truck UHPD E6 10W40 exceeds the following performance criteria:

Exceed	MB-228.51	MAN M 3477	Renault VI RLD-2
	Volvo VDS-3	MACK EO-N	Deutz DQC-III-10-LA
	MTU Type 3.1		
	API CI-4	ACEA E6/E7	

Typical Analysis

Properties	Unit	Method	Typical Value
SAE Grade		SAE J3000	10W-40
Density @15°C	kg/m^3	ASTM D4052	863
Kin. Viscosity @40°C	mm^2/s	ASTM D7042	98
Kin. Viscosity @100°C	mm^2/s	ASTM D7042	14.5
Viscosity Index		ASTM D2270	145
Viscosity CCS @-25°, max.	cP	ASTM D5293	7000
Flash Point COC	°C	ASTM D92	210
Pour Point	°C	ASTM D97	-30
Total Base Number	mgKOH/g	ASTM D2896	10.1
Sulphated Ash	%Wt	ASTM D874	0.8

Date Issued: 20-12-2015	Supersedes:01-01-2014	Revision Nr.:1

Kyoto Japan Tire (Suisse) S.A
1 Cour de Rive, 1207 Geneva - Switzerland
Tel +41.22. 789 32 00, Fax +41.21.826 11 76
Email sales@kyotojap.com

Kyoto Japan Tire Corporation Ltd.
Tokyo - Japan
www.kyotojap.com

Kyoto Japan Truck UHPD E6 10W40

Product Code:
KJL1423

Kyoto Japan Truck UHPD E6 10W40 is a fuel conserving super high performance universal oil based on 100% synthetic technology designed for high loaded diesel engines in light- and heavy commercial vehicles working under severe operating conditions through the whole year and running on low Sulphur Diesel Fuel (max. 50 ppm). **Kyoto Japan Truck UHPD E6 10W40** is formulated for use in Euro-4, Euro-5 and Euro-6 engines equipped with Diesel Particle Filter (DPF). This product is also suitable for vehicles equipped with EGR and/or SCR after treatment systems.
Kyoto Japan Truck UHPD E6 10W40 is formulated on high refined synthetic base stock in combination with an special additive package to reach the following properties.

- Excellent thermal- and oxidation stability.
- Very good dispersity and detergency.
- High anti-foam, anti-wear and anti-corrosion properties.
- Excellent protection against "Bore Polishing".
- Extended drain intervals up to 150.000 km.
- Suitable for engines equipped with a Diesel Particle Filter (DPF)
- Fuel conserving

Kyoto Japan Truck UHPD E6 10W40 exceeds the following performance criteria:

Exceed	MB-228.51	MAN M 3477	Renault VI RLD-2
	Volvo VDS-3	MACK EO-N	Deutz DQC-III-10-LA
	MTU Type 3.1		
	API CI-4	ACEA E6/E7	

Typical Analysis

Properties	Unit	Method	Typical Value
SAE Grade		SAE J3000	10W-40
Density @15°C	kg/m^3	ASTM D4052	863
Kin. Viscosity @40°C	mm^2/s	ASTM D7042	98
Kin. Viscosity @100°C	mm^2/s	ASTM D7042	14.5
Viscosity Index		ASTM D2270	145
Viscosity CCS @-25°, max.	cP	ASTM D5293	7000
Flash Point COC	°C	ASTM D92	210
Pour Point	°C	ASTM D97	-30
Total Base Number	mgKOH/g	ASTM D2896	10.1
Sulphated Ash	%Wt	ASTM D874	0.8

Date Issued: 20-12-2015	Supersedes:01-01-2014	Revision Nr.:1

Kyoto Japan Tire (Suisse) S.A
1 Cour de Rive, 1207 Geneva - Switzerland
Tel +41.22. 789 32 00, Fax +41.21.826 11 76
Email sales@kyotojap.com

Kyoto Japan Tire Corporation Ltd.
Tokyo - Japan
www.kyotojap.com

Kyoto Japan Multi Tractor 10W-30

Product Code:
KJL1451

Kyoto Japan Multi Tractor 10W-30 is a high quality universal mineral based so called "Super Tractor Oil Universal" (STOU) developed for use in tractors, combines, harvesters and off the road equipment with or without turbocharger diesel engines. Super Tractor Oil Universal is also designed to lubricate the transmission, power take-off, final drive, hydraulic system and oil immersed "wet brakes". This product cannot been used in diesel engines equipped with a Diesel Particle Filter (DPF).
Kyoto Japan Multi Tractor 10W-30 is formulated on high refined solvent mineral base stock in combination with a unique additive package to reach the following properties.

- Excellent thermal- and oxidation stability.
- Very good dispersity and detergency.
- Excellent cold start properties.
- High anti-foam, anti-wear and anti-corrosion properties.
- Suitable for Wet Brakes.

Kyoto Japan Multi Tractor 10W-30 exceeds the following performance criteria:

Engine Spec	API CG-4/CF-4/CE/SF	MB 227.1	ACEA E3
UTTO/STOU Spec	JD J20C/D	Ford M2C86B/C	Ford M2C 134D
	Case MS 1204/6/7/9	MF M 1135/1139	MF M 1143/1145
	Cat TO-2	API GL-4	Allison C-4
Hydr. Spec	Eaton M-2950S	Eaton I-280-S	Danfoss

Typical Analysis

Properties	Unit	Method	Typical Value
SAE Grade		SAE J3000	10W-30
Density @15°C	kg/m^3	ASTM D4052	874
Kin. Viscosity @40°C	mm^2/s	ASTM D7042	67
Kin. Viscosity @100°C	mm^2/s	ASTM D7042	10.5
Viscosity Index		ASTM D2270	145
Viscosity CCS @-25°, max.	cP	ASTM D5293	7000
Flash Point COC	°C	ASTM D92	>201
Pour Point	°C	ASTM D97	-30
Total Base Number	mgKOH/g	ASTM D2896	10.1

Date Issued: 20-12-2015	Supersedes:01-01-2014	Revision Nr.:1

Kyoto Japan Tire (Suisse) S.A
1 Cour de Rive, 1207 Geneva - Switzerland
Tel +41.22. 789 32 00, Fax +41.21.826 11 76
Email sales@kyotojap.com

Kyoto Japan Tire Corporation Ltd.
Tokyo - Japan
www.kyotojap.com

Kyoto Japan Multi Tractor 10W-40

Product Code:
KJL1452

Kyoto Japan Multi Tractor 10W-40 is a high quality universal semi synthetic based so called "Super Tractor Oil Universal" (STOU) developed for use in tractors, combines, harvesters and off the road equipment with or without turbocharger diesel engines. Super Tractor Oil Universal is also designed to lubricate the transmission, power take-off, final drive, hydraulic system and oil immersed "wet brakes". This product cannot been used in diesel engines equipped with a Diesel Particle Filter (DPF).
Kyoto Japan Multi Tractor 10W-40 is formulated on high refined solvent mineral and synthetic base stocks in combination with a unique additive package to reach the following properties.

- Excellent thermal- and oxidation stability.
- Very good dispersity and detergency.
- Excellent cold start properties.
- High anti-foam, anti-wear and anti-corrosion properties.
- Suitable for Wet Brakes.

Kyoto Japan Multi Tractor 10W-40 exceeds the following performance criteria:

Engine Spec	API CG-4/CF-4/CE/SF	MB 228.1	ACEA E3
UTTO/STOU Spec	JD J20C, J20D, J27	Ford M2C86B, 134D	Ford M2C159B
	Case MS 1204, 6, 7, 9	MF M 1135/1139/1143/1144/1145	
	CAT TO-2	API GL-4	Allison C4
	ZF TE-ML 06A, 06B, 06C, 07B		NH 82009201, 2, 3
Hydr. Spec	Eaton M-2950S	Eaton I-280-S	Danfoss

Typical Analysis

Properties	Unit	Method	Typical Value
SAE Grade		SAE J3000	10W-40
Density @15°C	kg/m^3	ASTM D4052	877
Kin. Viscosity @40°C	mm^2/s	ASTM D7042	57
Kin. Viscosity @100°C	mm^2/s	ASTM D7042	13.5
Viscosity Index		ASTM D2270	145
Viscosity CCS @-25°, max.	cP	ASTM D5293	7000
Flash Point COC	°C	ASTM D92	>201
Pour Point	°C	ASTM D97	-30
Total Base Number	mgKOH/g	ASTM D2896	10.6

Date Issued: 20-12-2015	Supersedes:01-01-2014	Revision Nr.:1

Kyoto Japan Tire (Suisse) S.A
1 Cour de Rive, 1207 Geneva - Switzerland
Tel +41.22. 789 32 00, Fax +41.21.826 11 76
Email sales@kyotojap.com

Kyoto Japan Tire Corporation Ltd.
Tokyo - Japan
www.kyotojap.com

Kyoto Japan Multi Tractor 15W-40

Product Code:
KJL1453

Kyoto Japan Multi Tractor 15W-40 is a high quality universal mineral based so called "Super Tractor Oil Universal" (STOU) developed for use in tractors, combines, harvesters and off the road equipment with or without turbocharger diesel engines. Super Tractor Oil Universal is also designed to lubricate the transmission, power take-off, final drive, hydraulic system and oil immersed "wet brakes". This product cannot been used in diesel engines equipped with a Diesel Particle Filter (DPF).

Kyoto Japan Multi Tractor 15W-40 is formulated on high refined solvent mineral base stock in combination with a unique additive package to reach the following properties.

- Excellent thermal- and oxidation stability.
- Very good dispersity and detergency.
- Excellent cold start properties.
- High anti-foam, anti-wear and anti-corrosion properties.
- Suitable for Wet Brakes.

Kyoto Japan Multi Tractor 15W-40 exceeds the following performance criteria:

Engine Spec	API CF-4/CE/SF	MB 227.1	ACEA E3
UTTO/STOU Spec	JD J20C/D	Ford M2C86B/C	Ford M2C 134D
	Case MS 1204/6/7/9	MF M 1135/1139	MF M 1143/1145
	Cat TO-2	API GL-4	Allison C-4
Hydr. Spec	Eaton M-2950S	Eaton I-280-S	Danfoss

Typical Analysis

Properties	Unit	Method	Typical Value
SAE Grade		SAE J3000	15W-40
Density @15°C	kg/m^3	ASTM D4052	877
Kin. Viscosity @40°C	mm^2/s	ASTM D7042	106.4
Kin. Viscosity @100°C	mm^2/s	ASTM D7042	14.4
Viscosity Index		ASTM D2270	139
Viscosity CCS @-25°, max.	cP	ASTM D5293	7000
Flash Point COC	°C	ASTM D92	201
Pour Point	°C	ASTM D97	-30
Total Base Number	mgKOH/g	ASTM D2896	11.7
Sulphated Ash	%Wt	ASTM D874	1.38

Date Issued: 20-12-2015	Supersedes:01-01-2014	Revision Nr.:1

Kyoto Japan Tire (Suisse) S.A
1 Cour de Rive, 1207 Geneva - Switzerland
Tel +41.22. 789 32 00, Fax +41.21.826 11 76
Email sales@kyotojap.com

Kyoto Japan Tire Corporation Ltd.
Tokyo - Japan
www.kyotojap.com

Kyoto Japan Universal Tractor 80W

Product Code:
KJL1454

Kyoto Japan Universal Tractor 80W is a high performance fluids for use in transmissions, hydraulic systems, oil immersed brakes of tractors and off-road equipment. These fluids are specially designed for use where a common lubricant reservoir serves transmissions, final drives and hydraulic systems and to optimize the performance of agricultural and commercial tractors.
Kyoto Japan Universal Tractor 80W is based on high quality virgin mineral base oil in combination with a unique additive package to ensure the following properties:

- Enhanced frictional properties optimize clutch performance and ensure noise free operation of wet brakes
- High viscosity index coupled with high shear stability provides consistent performance
- Excellent low temperature fluidity provides good response and effective lubrication at low ambient temperatures
- Robust anti-wear and extreme pressure properties control wear, extend equipment life and reduce maintenance costs
- Multipurpose capability reduces inventory and prevents accidental contamination and misapplication

Kyoto Japan Universal Tractor 80W exceeds the following performance criteria:

API GL-4	NH Mat 3525/3526	JD J20C	Volvo WB 101
ZF TE-ML 03E/05E	MF 1135/1143/1145		

Typical Analysis

Properties	Unit	Method	Typical Value
SAE Grade		SAE J300	80W
Density @15°C	kg/m^3	ASTM D4052	885
Kin. Viscosity @40°C	mm^2/s	ASTM D7042	57.8
Kin. Viscosity @100°C	mm^2/s	ASTM D7042	9.5
Viscosity Index		ASTM D2270	148
Flash Point COC	°C	ASTM D92	>201
Pour Point	°C	ASTM D97	-39
Total Base Number	mgKOH/g	ASTM D2896	9
Sulphated Ash	%Wt	ASTM D874	1.3

Date Issued: 20-12-2015	Supersedes:01-01-2014	Revision Nr.:1

Kyoto Japan Tire (Suisse) S.A
1 Cour de Rive, 1207 Geneva - Switzerland
Tel +41.22. 789 32 00, Fax +41.21.826 11 76
Email sales@kyotojap.com

Kyoto Japan Tire Corporation Ltd.
Tokyo - Japan
www.kyotojap.com

Kyoto Japan Universal Tractor 85W

Product Code:
KJL1455

Kyoto Japan Universal Tractor 85W is a high quality universal mineral so called "Universal Tractor Transmission Oil" (UTTO) developed is suitable for modern high performance agriculture application require a single lubricant for transmission, differential, power take-off, hydraulic system and oil "wet" brakes. **This product cannot be used as lubricant for the engine.**

Kyoto Japan Universal Tractor 85W is formulated on high refined solvent mineral base stocks in combination with a unique additive package to reach the following properties.

- Excellent thermal- and oxidation stability.
- Very good dispersity and detergency.
- Excellent cold start properties.
- High anti-foam, anti-wear and anti-corrosion properties.
- Suitable for Wet Brakes.

Kyoto Japan Universal Tractor 85W exceeds the following performance criteria:

API GL-4 JD J20C Ford M2C 134D MF M 1135/1143/1145
Case NH 3525/3526 ZF TE-ML 03E/05E

Typical Analysis

Properties	Unit	Method	Typical Value
SAE Grade		SAE J3000	85W
Density @15°C	kg/m^3	ASTM D4052	877
Kin. Viscosity @40°C	mm^2/s	ASTM D7042	65.1
Kin. Viscosity @100°C	mm^2/s	ASTM D7042	11.26
Viscosity Index		ASTM D2270	145
Flash Point COC	°C	ASTM D92	>201
Pour Point	°C	ASTM D97	-30
Total Base Number	mgKOH/g	ASTM D2896	10.1
Sulphated Ash	%Wt	ASTM 874	1.34

Date Issued: 20-12-2015	Supersedes:01-01-2014	Revision Nr.:1

Kyoto Japan Tire (Suisse) S.A
1 Cour de Rive, 1207 Geneva - Switzerland
Tel +41.22. 789 32 00, Fax +41.21.826 11 76
Email sales@kyotojap.com

Kyoto Japan Tire Corporation Ltd.
Tokyo - Japan
www.kyotojap.com

Kyoto Japan Multi Tractor 5W-30

Product Code:
KJL1456

Kyoto Japan Multi Tractor 5W-30 is a high quality universal mineral based so called "Super Tractor Oil Universal" (STOU) developed for use in tractors, combines, harvesters and off the road equipment with or without turbocharger diesel engines. Super Tractor Oil Universal is also designed to lubricate the transmission, power take-off, final drive, hydraulic system and oil immersed "wet brakes". This product cannot been used in diesel engines equipped with a Diesel Particle Filter (DPF).

Kyoto Japan Multi Tractor 5W-30 is formulated on high refined solvent mineral base stock in combination with a unique additive package to reach the following properties.

- Excellent thermal- and oxidation stability.
- Very good dispersity and detergency.
- Excellent cold start properties.
- High anti-foam, anti-wear and anti-corrosion properties.
- Suitable for Wet Brakes.

Kyoto Japan Multi Tractor 5W-30 exceeds the following performance criteria:

Engine Spec	API CG-4/CF-4/CE/SF	MB 227.1	ACEA E3
UTTO/STOU Spec	JD J20C/D	Ford M2C86B/C	Ford M2C 134D
	Case MS 1204/6/7/9	MF M 1135/1139	MF M 1143/1145
	Cat TO-2	API GL-4	Allison C-4
Hydr. Spec	Eaton M-2950S	Eaton I-280-S	Danfoss

Typical Analysis

Properties	Unit	Method	Typical Value
SAE Grade		SAE J3000	5W-30
Density @15°C	kg/m^3	ASTM D4052	872
Kin. Viscosity @40°C	mm^2/s	ASTM D7042	75
Kin. Viscosity @100°C	mm^2/s	ASTM D7042	10.5
Viscosity Index		ASTM D2270	125
Viscosity CCS @-30°, max.	cP	ASTM D5293	6600
Flash Point COC	°C	ASTM D92	201
Pour Point	°C	ASTM D97	-30
Total Base Number	mgKOH/g	ASTM D2896	10.1

Date Issued: 20-12-2015	Supersedes:01-01-2014	Revision Nr.:1

Kyoto Japan Tire (Suisse) S.A
1 Cour de Rive, 1207 Geneva - Switzerland
Tel +41.22. 789 32 00, Fax +41.21.826 11 76
Email sales@kyotojap.com

Kyoto Japan Tire Corporation Ltd.
Tokyo - Japan
www.kyotojap.com

Kyoto Japan POMP 100

Product Code:
KJL1501

Kyoto Japan POMP 100 is a premium quality vacuum pump oil special develop to lubricate the gearboxes of vacuum pumps.

Kyoto Japan POMP 100 is based on high quality mineral base oil with a special additive technology to ensure the following properties:

- an excellent protection against wear
- a very good activity against rust and corrosion
- excellent stability against oxidation
- very good deaerating and foam-suppressing properties
- very good demulsification properties
- good compatibility with seals and gaskets made from synthetic material
- a low pour point

Kyoto Japan POMP 100 exceeds the following performance criteria

DIN 51524 HLPD

Typical Analysis

Properties	Unit	Method	Typical Value
ISO VG Class			100
Density @15°C	kg/m^3	ASTM D4052	888.6
Kin. Viscosity @40°C	mm^2/s	ASTM D7042	101.2
Kin. Viscosity @100°C	mm^2/s	ASTM D7042	14.5
Viscosity Index		ASTM D2270	98
Flash Point COC	°C	ASTM D92	>201
Pour Point	°C	ASTM D97	-18
FZG Fail Load		DIN 51354-2	11
Air Release Value @50°C	min	DIN 51381	Pass

Date Issued: 20-12-2015	Supersedes:01-01-2014	Revision Nr.:1

Kyoto Japan Tire (Suisse) S.A
1 Cour de Rive, 1207 Geneva - Switzerland
Tel +41.22. 789 32 00, Fax +41.21.826 11 76
Email sales@kyotojap.com

Kyoto Japan Tire Corporation Ltd.
Tokyo - Japan
www.kyotojap.com

Kyoto Japan Chain 46

Product Code:
KJL1502

Kyoto Japan Chain 46 is a high quality oil specially developed to lubricate the chain of chain saws .

Kyoto Japan Chain 46 is based on high quality mineral base oil in combination with a unique additive package to ensure the following properties:

- Very good adhesive strength.
- Excellent lubricating properties, helps to prevent premature chain failure
- Extend working life.
- The specially selected additives also inhibit rust.

Kyoto Japan Chain 46 is ***NOT*** suitable to lubricate the engine.

Typical Analysis

Properties	Unit	Method	Typical Value
ISO VG Class			46
Density @15°C	kg/m^3	ASTM D4052	875
Kin. Viscosity @40°C	mm^2/s	ASTM D7042	47.1
Kin. Viscosity @100°C	mm^2/s	ASTM D7042	7.2
Viscosity Index		ASTM D2270	109
Flash Point COC	°C	ASTM D92	>201
Pour Point	°C	ASTM D97	-24

Date Issued: 20-12-2015	Supersedes:01-01-2014	Revision Nr.:1

Kyoto Japan Tire (Suisse) S.A
1 Cour de Rive, 1207 Geneva - Switzerland
Tel +41.22. 789 32 00, Fax +41.21.826 11 76
Email sales@kyotojap.com

Kyoto Japan Tire Corporation Ltd.
Tokyo - Japan
www.kyotojap.com

Kyoto Japan Chain 100

Product Code:
KJL1503

Kyoto Japan Chain 100 is a high quality oil specially developed to lubricate the chain of chain saws .

Kyoto Japan Chain 100 is based on high quality virgin mineral base oil in combination with a unique additive package to ensure the following properties:

- Very good adhesive strength.
- Excellent lubricating properties, helps to prevent premature chain failure
- Extend working life.
- The specially selected additives also inhibit rust.

Kyoto Japan Chain 100 is ***NOT*** suitable to lubricate the engine.

Typical Analysis

Properties	Unit	Method	Typical Value
ISO VG Class			100
Density @15°C	kg/m^3	ASTM D4052	888
Kin. Viscosity @100°C	mm^2/s	ASTM D7042	11.2
Viscosity Index		ASTM D2270	99
Flash Point COC	°C	ASTM D92	>201
Pour Point	°C	ASTM D97	-24

Date Issued: 20-12-2015	Supersedes:01-01-2014	Revision Nr.:1

Kyoto Japan Tire (Suisse) S.A
1 Cour de Rive, 1207 Geneva - Switzerland
Tel +41.22. 789 32 00, Fax +41.21.826 11 76
Email sales@kyotojap.com

Kyoto Japan Tire Corporation Ltd.
Tokyo - Japan
www.kyotojap.com

Kyoto Japan Chain 150

Product Code:
KJL1504

Kyoto Japan Chain 150 is a high quality oil specially developed to lubricate the chain of chain saws .

Kyoto Japan Chain 150 is based on high quality mineral base oil in combination with a unique additive package to ensure the following properties:

- Very good adhesive strength.
- Excellent lubricating properties, helps to prevent premature chain failure
- Extend working life.
- The specially selected additives also inhibit rust.

Kyoto Japan Chain 150 is ***NOT*** suitable to lubricate the engine.

Typical Analysis

Properties	Unit	Method	Typical Value
Density @15°C	kg/m^3	ASTM D4052	888
Kin. Viscosity @40°C	mm^2/s	ASTM D7042	150
Kin. Viscosity @100°C	mm^2/s	ASTM D7042	11.4
Flash Point COC	°C	ASTM D92	>201
Pour Point	°C	ASTM D97	-15

Date Issued: 20-12-2015	Supersedes:01-01-2014	Revision Nr.:1

Kyoto Japan Tire (Suisse) S.A
1 Cour de Rive, 1207 Geneva - Switzerland
Tel +41.22. 789 32 00, Fax +41.21.826 11 76
Email sales@kyotojap.com

Kyoto Japan Tire Corporation Ltd.
Tokyo - Japan
www.kyotojap.com

Kyoto Japan Chain 220

Product Code:
KJL1505

Kyoto Japan Chain 220 is a high quality oil specially developed to lubricate the chain of chain saws .

Kyoto Japan Chain 220 is based on high quality mineral base oil in combination with a unique additive package to ensure the following properties:

- Very good adhesive strength.
- Excellent lubricating properties, helps to prevent premature chain failure
- Extend working life.
- The specially selected additives also inhibit rust.

Kyoto Japan Chain 220 is ***NOT*** suitable to lubricate the engine.

Typical Analysis

Properties	Unit	Method	Typical Value
ISO VG Class			220
Density @15°C	kg/m^3	ASTM D4052	895
Kin. Viscosity @40°C	mm^2/s	ASTM D7042	228
Kin. Viscosity @100°C	mm^2/s	ASTM D7042	20.5
Viscosity Index		ASTM D2270	98
Flash Point COC	°C	ASTM D92	>201
Pour Point	°C	ASTM D97	-15

Date Issued: 20-12-2015	Supersedes:01-01-2014	Revision Nr.:1

Kyoto Japan Tire (Suisse) S.A
1 Cour de Rive, 1207 Geneva - Switzerland
Tel +41.22. 789 32 00, Fax +41.21.826 11 76
Email sales@kyotojap.com

Kyoto Japan Tire Corporation Ltd.
Tokyo - Japan
www.kyotojap.com

Kyoto Japan Chain 320

Product Code:
KJL1506

Kyoto Japan Chain 320 is a high quality oil specially developed to lubricate the chain of chain saws .

Kyoto Japan Chain 320 is based on high quality mineral base oil in combination with a unique additive package to ensure the following properties:

- Very good adhesive strength.
- Excellent lubricating properties, helps to prevent premature chain failure
- Extend working life.
- The specially selected additives also inhibit rust.

Kyoto Japan Chain 320 is ***NOT*** suitable to lubricate the engine.

Typical Analysis

Properties	Unit	Method	Typical Value
ISO VG Class			320
Density @15°C	kg/m^3	ASTM D4052	894
Kin. Viscosity @40°C	mm^2/s	ASTM D7042	321
Kin. Viscosity @100°C	mm^2/s	ASTM D7042	24.1
Viscosity Index		ASTM D2270	97
Flash Point COC	°C	ASTM D92	>201
Pour Point	°C	ASTM D97	-12

Date Issued: 20-12-2015	Supersedes:01-01-2014	Revision Nr.:1

Kyoto Japan Tire (Suisse) S.A
1 Cour de Rive, 1207 Geneva - Switzerland
Tel +41.22. 789 32 00, Fax +41.21.826 11 76
Email sales@kyotojap.com

Kyoto Japan Tire Corporation Ltd.
Tokyo - Japan
www.kyotojap.com

Kyoto Japan Chain 460

Product Code:
KJL1507

Kyoto Japan Chain 460 is a high quality oil specially developed to lubricate the chain of chain saws .

Kyoto Japan Chain 460 is based on high quality mineral base oil in combination with a unique additive package to ensure the following properties:

- Very good adhesive strength.
- Excellent lubricating properties, helps to prevent premature chain failure
- Extend working life.
- The specially selected additives also inhibit rust.

CHAIN SAW POWER 460 is ***NOT*** suitable to lubricate the engine.

Typical Analysis

Properties	Unit	Method	Typical Value
ISO VG Class			460
Density @15°C	kg/m^3	ASTM D4052	899
Kin. Viscosity @40°C	mm^2/s	ASTM D7042	472
Kin. Viscosity @100°C	mm^2/s	ASTM D7042	33.4
Viscosity Index		ASTM D2270	99
Flash Point COC	°C	ASTM D92	>201
Pour Point	°C	ASTM D97	-12

Date Issued: 20-12-2015	Supersedes:01-01-2014	Revision Nr.:1

Kyoto Japan Tire (Suisse) S.A
1 Cour de Rive, 1207 Geneva - Switzerland
Tel +41.22. 789 32 00, Fax +41.21.826 11 76
Email sales@kyotojap.com

Kyoto Japan Tire Corporation Ltd.
Tokyo - Japan
www.kyotojap.com

Kyoto Japan SP 68

Product Code:
KJL1508

Kyoto Japan SP 68 is a high performance extreme pressure gear oils developed for lubrication of heavy duty industrial gears working under severe operating conditions.

Kyoto Japan SP 68 is based on high quality mineral base oil in combination with a unique additive package to ensure the following properties:

- Excellent load carrying capability protects gears against scuffing and wear and offers long equipment life and reduced maintenance costs.
- High thermo-oxidative stability helps resist deposit formation, provides enhanced system cleanliness and enables longer service intervals.
- Provides effective rust and corrosion protection to all gearbox components.
- Excellent demulsibility property enables trouble-free operation in conditions encountering water/ moisture.

Kyoto Japan SP 68 exceeds the following performance criteria:

DIN 51517-3 CLP ISO 12925-1 CKC AGMA 9005 E-02 US Steel 224
David Brown S1.53.101

Typical Analysis

Properties	Unit	Method	Typical Value
ISO VG Grade		ISO 3448	68
Density @15°C	kg/m^3	ASTM D4052	886
Kin. Viscosity @40°C	mm^2/s	ASTM D7042	68.2
Kin. Viscosity @100°C	mm^2/s	ASTM D7042	8.4
Viscosity Index		ASTM D2270	95
Flash Point COC, min	°C	ASTM D92	201
Pour Point	°C	ASTM D97	-15
FZG Fail Load Stage, min		DIN 51354-2	>12
Total Acid Number	mgKOH/g	ASTM D664	<0.5

Date Issued: 20-12-2015	Supersedes:01-01-2014	Revision Nr.:1

Kyoto Japan Tire (Suisse) S.A
1 Cour de Rive, 1207 Geneva - Switzerland
Tel +41.22. 789 32 00, Fax +41.21.826 11 76
Email sales@kyotojap.com

Kyoto Japan Tire Corporation Ltd.
Tokyo - Japan
www.kyotojap.com

Kyoto Japan SP 100

Product Code:
KJL1509

Kyoto Japan SP 100 is a high performance extreme pressure gear oils developed for lubrication of heavy duty industrial gears working under severe operating conditions.

Kyoto Japan SP 100 is based on high quality mineral base oil in combination with a unique additive package to ensure the following properties:

- Excellent load carrying capability protects gears against scuffing and wear and offers long equipment life and reduced maintenance costs.
- High thermo-oxidative stability helps resist deposit formation, provides enhanced system cleanliness and enables longer service intervals.
- Provides effective rust and corrosion protection to all gearbox components.
- Excellent demulsibility property enables trouble-free operation in conditions encountering water/ moisture.

Kyoto Japan SP 100 exceeds the following performance criteria:

DIN 51517-3 CLP ISO 12925-1 CKC AGMA 9005 E-02 US Steel 224
David Brown S1.53.101

Typical Analysis

Properties	Unit	Method	Typical Value
ISO VG Grade		ISO 3448	100
Density @15°C	kg/m^3	ASTM D4052	891
Kin. Viscosity @40°C	mm^2/s	ASTM D7042	99
Kin. Viscosity @100°C	mm^2/s	ASTM D7042	11.4
Viscosity Index		ASTM D2270	>95
Flash Point COC, min	°C	ASTM D92	>210
Pour Point	°C	ASTM D97	-27
FZG Fail Load Stage, min		DIN 51354-2	>12
Total Acid Number	mgKOH/g	ASTM D664	<0.5

Date Issued: 20-12-2015	Supersedes:01-01-2014	Revision Nr.:1

Kyoto Japan Tire (Suisse) S.A
1 Cour de Rive, 1207 Geneva - Switzerland
Tel +41.22. 789 32 00, Fax +41.21.826 11 76
Email sales@kyotojap.com

Kyoto Japan Tire Corporation Ltd.
Tokyo - Japan
www.kyotojap.com

Kyoto Japan SP 150

Product Code:
KJL1510

In Kyoto Japan SP 150 is a high performance extreme pressure gear oils developed for lubrication of heavy duty industrial gears working under severe operating conditions.

Kyoto Japan SP 150 is based on high quality mineral base oil in combination with a unique additive package to ensure the following properties:

- Excellent load carrying capability protects gears against scuffing and wear and offers long equipment life and reduced maintenance costs.
- High thermo-oxidative stability helps resist deposit formation, provides enhanced system cleanliness and enables longer service intervals.
- Provides effective rust and corrosion protection to all gearbox components.
- Excellent demulsibility property enables trouble-free operation in conditions encountering water/ moisture.

Kyoto Japan SP 150 exceeds the following performance criteria:

DIN 51517-3 CLP ISO 12925-1 CKC AGMA 9005 E-02 US Steel 224
David Brown S1.53.101

Typical Analysis

Properties	Unit	Method	Typical Value
ISO VG Grade		ISO 3448	150
Density @15°C	kg/m^3	ASTM D4052	895
Kin. Viscosity @40°C	mm^2/s	ASTM D7042	149
Kin. Viscosity @100°C	mm^2/s	ASTM D7042	13.6
Viscosity Index		ASTM D2270	>95
Flash Point COC, min	°C	ASTM D92	>201
Pour Point	°C	ASTM D97	-21
FZG Fail Load Stage, min		DIN 51354-2	>12
Total Acid Number	mgKOH/g	ASTM D664	<0.5

Date Issued: 20-12-2015	Supersedes:01-01-2014	Revision Nr.:1

Kyoto Japan Tire (Suisse) S.A
1 Cour de Rive, 1207 Geneva - Switzerland
Tel +41.22. 789 32 00, Fax +41.21.826 11 76
Email sales@kyotojap.com

Kyoto Japan Tire Corporation Ltd.
Tokyo - Japan
www.kyotojap.com

Kyoto Japan SP 220

Product Code:
KJL1511

Kyoto Japan SP 220 is a high performance extreme pressure gear oils developed for lubrication of heavy duty industrial gears working under severe operating conditions.

Kyoto Japan SP 220 is based on high quality mineral base oil in combination with a unique additive package to ensure the following properties:

- Excellent load carrying capability protects gears against scuffing and wear and offers long equipment life and reduced maintenance costs.
- High thermo-oxidative stability helps resist deposit formation, provides enhanced system cleanliness and enables longer service intervals.
- Provides effective rust and corrosion protection to all gearbox components.
- Excellent demulsibility property enables trouble-free operation in conditions encountering water/ moisture.

Kyoto Japan SP 220 exceeds the following performance criteria:

DIN 51517-3 CLP ISO 12925-1 CKC AGMA 9005 E-02 US Steel 224
David Brown S1.53.101

Typical Analysis

Properties	Unit	Method	Typical Value
ISO VG Grade		ISO 3448	220
Density @15°C	kg/m^3	ASTM D4052	900
Kin. Viscosity @40°C	mm^2/s	ASTM D7042	221
Kin. Viscosity @100°C	mm^2/s	ASTM D7042	19.7
Viscosity Index		ASTM D2270	>96
Flash Point COC, min	°C	ASTM D92	>201
Pour Point	°C	ASTM D97	-21
FZG Fail Load Stage, min		DIN 51354-2	>12
Total Acid Number	mgKOH/g	ASTM D664	<0.5

Date Issued: 20-12-2015	Supersedes:01-01-2014	Revision Nr.:1

Kyoto Japan Tire (Suisse) S.A
1 Cour de Rive, 1207 Geneva - Switzerland
Tel +41.22. 789 32 00, Fax +41.21.826 11 76
Email sales@kyotojap.com

Kyoto Japan Tire Corporation Ltd.
Tokyo - Japan
www.kyotojap.com

Kyoto Japan SP 320

Product Code:
KJL1512

Kyoto Japan SP 320 is a high performance extreme pressure gear oils developed for lubrication of heavy duty industrial gears working under severe operating conditions.

Kyoto Japan SP 320 is based on high quality mineral base oil in combination with a unique additive package to ensure the following properties:

- Excellent load carrying capability protects gears against scuffing and wear and offers long equipment life and reduced maintenance costs.
- High thermo-oxidative stability helps resist deposit formation, provides enhanced system cleanliness and enables longer service intervals.
- Provides effective rust and corrosion protection to all gearbox components.
- Excellent demulsibility property enables trouble-free operation in conditions encountering water/ moisture.

Kyoto Japan SP 320 exceeds the following performance criteria:

DIN 51517-3 CLP ISO 12925-1 CKC AGMA 9005 E-02 US Steel 224
David Brown S1.53.101

Typical Analysis

Properties	Unit	Method	Typical Value
ISO VG Grade		ISO 3448	320
Density @15°C	kg/m^3	ASTM D4052	904
Kin. Viscosity @40°C	mm^2/s	ASTM D7042	319
Kin. Viscosity @100°C	mm^2/s	ASTM D7042	22.8
Viscosity Index		ASTM D2270	>95
Flash Point COC, min	°C	ASTM D92	>201
Pour Point	°C	ASTM D97	-15
FZG Fail Load Stage, min		DIN 51354-2	>12
Total Acid Number	mgKOH/g	ASTM D664	<0.5

Date Issued: 20-12-2015	Supersedes:01-01-2014	Revision Nr.:1

Kyoto Japan Tire (Suisse) S.A
1 Cour de Rive, 1207 Geneva - Switzerland
Tel +41.22. 789 32 00, Fax +41.21.826 11 76
Email sales@kyotojap.com

Kyoto Japan Tire Corporation Ltd.
Tokyo - Japan
www.kyotojap.com

Kyoto Japan SP 460

Product Code:
KJL1513

Kyoto Japan SP 460 is a high performance extreme pressure gear oils developed for lubrication of heavy duty industrial gears working under severe operating conditions.

Kyoto Japan SP 460 is based on high quality mineral base oil in combination with a unique additive package to ensure the following properties:

- Excellent load carrying capability protects gears against scuffing and wear and offers long equipment life and reduced maintenance costs.
- High thermo-oxidative stability helps resist deposit formation, provides enhanced system cleanliness and enables longer service intervals.
- Provides effective rust and corrosion protection to all gearbox components.
- Excellent demulsibility property enables trouble-free operation in conditions encountering water/ moisture.

Kyoto Japan SP 460 exceeds the following performance criteria:

DIN 51517-3 CLP ISO 12925-1 CKC AGMA 9005 E-02 US Steel 224
David Brown S1.53.101

Typical Analysis

Properties	Unit	Method	Typical Value
ISO VG Grade		ISO 3448	460
Density @15°C	kg/m^3	ASTM D4052	907
Kin. Viscosity @40°C	mm^2/s	ASTM D7042	462
Kin. Viscosity @100°C	mm^2/s	ASTM D7042	30.5
Viscosity Index		ASTM D2270	>96
Flash Point COC, min	°C	ASTM D92	>201
Pour Point	°C	ASTM D97	-15
FZG Fail Load Stage, min		DIN 51354-2	>12
Total Acid Number	mgKOH/g	ASTM D664	<0.5

Date Issued: 20-12-2015	Supersedes:01-01-2014	Revision Nr.:1

Kyoto Japan Tire (Suisse) S.A
1 Cour de Rive, 1207 Geneva - Switzerland
Tel +41.22. 789 32 00, Fax +41.21.826 11 76
Email sales@kyotojap.com

Kyoto Japan Tire Corporation Ltd.
Tokyo - Japan
www.kyotojap.com

Kyoto Japan SP 680

Product Code:
KJL1514

Kyoto Japan SP 680 is a high performance extreme pressure gear oils developed for lubrication of heavy duty industrial gears working under severe operating conditions.

Kyoto Japan SP 680 is based on high quality mineral base oil in combination with a unique additive package to ensure the following properties:

- Excellent load carrying capability protects gears against scuffing and wear and offers long equipment life and reduced maintenance costs.
- High thermo-oxidative stability helps resist deposit formation, provides enhanced system cleanliness and enables longer service intervals.
- Provides effective rust and corrosion protection to all gearbox components.
- Excellent demulsibility property enables trouble-free operation in conditions encountering water/ moisture.

Kyoto Japan SP 680 exceeds the following performance criteria:

DIN 51517-3 CLP ISO 12925-1 CKC AGMA 9005 E-02 US Steel 224
David Brown S1.53.101

Typical Analysis

Properties	Unit	Method	Typical Value
ISO VG Grade		ISO 3448	680
Density @15°C	kg/m^3	ASTM D4052	906
Kin. Viscosity @40°C	mm^2/s	ASTM D7042	678
Kin. Viscosity @100°C	mm^2/s	ASTM D7042	38.4
Viscosity Index		ASTM D2270	>96
Flash Point COC, min	°C	ASTM D92	>201
Pour Point	°C	ASTM D97	-15
FZG Fail Load Stage, min		DIN 51354-2	>12
Total Acid Number	mgKOH/g	ASTM D664	<0.5

Date Issued: 20-12-2015	Supersedes:01-01-2014	Revision Nr.:1

Kyoto Japan Tire (Suisse) S.A
1 Cour de Rive, 1207 Geneva - Switzerland
Tel +41.22. 789 32 00, Fax +41.21.826 11 76
Email sales@kyotojap.com

Kyoto Japan Tire Corporation Ltd.
Tokyo - Japan
www.kyotojap.com

Kyoto Japan Slideway 68

Product Code:
KJL1515

Kyoto Japan Slideway 68 is a universal high performance machine tool lubricant specially designed for the lubrication of tableway. **Kyoto Japan Slideway 68** meets also the requirements of gear boxes, spindles and hydraulic systems of different machine tools.

Kyoto Japan Slideway 68 is based on high quality mineral virgin base oil in combination with a special additive to ensure the following properties.

- Excellent stick-slip properties.
- Very good antiwear, antirust and antifoam properties.
- High oxidation stability.
- Good resistance to high pressure and loads.
- Excellent demulsification properties.
- Good filterability.
- Strong adhesion to (vertical) slides

Kyoto Japan Slideway 68 exceeds the following performance limits.

DIN 51524, DIN 51517; FZG 12; US Steel 224

Typical Analysis

Property	Unit	Method	Typical Value
ISO VG Grade			68
Density @15°C	kg/m^3	ASTM D4052	886
Kin. Viscosity @40°C	mm^2/s	ASTM D7042	68
Kin. Viscosity @100°C	mm^2/s	ASTM D7042	9.2
Flash Point COC	°C	ASTM D92	>201
Pour Point	°C	ASTM D97	-27
Total Acid Number	mgKOH/g	ASTM D974	0.45

Date Issued: 20-12-2015	Supersedes:01-01-2014	Revision Nr.:1

Kyoto Japan Tire (Suisse) S.A
1 Cour de Rive, 1207 Geneva - Switzerland
Tel +41.22. 789 32 00, Fax +41.21.826 11 76
Email sales@kyotojap.com

Kyoto Japan Tire Corporation Ltd.
Tokyo - Japan
www.kyotojap.com

Kyoto Japan Slideway 220

Product Code:
KJL1516

Kyoto Japan Slideway 220 is a universal high performance machine tool lubricant specially designed for the lubrication of table way. **Kyoto Japan Slideway 220** meets also the requirements of gear boxes, spindles and hydraulic systems of different machine tools.

Kyoto Japan Slideway 220 is based on high quality mineral virgin base oil in combination with a special additive to ensure the following properties.

- Excellent stick-slip properties.
- Very good antiwear, antirust and antifoam properties.
- High oxidation stability.
- Good resistance to high pressure and loads.
- Excellent demulsification properties.
- Good filterability.
- Strong adhesion to (vertical) slides

Kyoto Japan Slideway 220 exceeds the following performance limits.

DIN 51524, DIN 51517; FZG 12; US Steel 224

Typical Analysis

Properties	Unit	Method	Typical Value
ISO VG Grade			220
Density @15°C	kg/m^3	ASTM D4052	892
Kin. Viscosity @40°C	mm^2/s	ASTM D7042	220
Kin. Viscosity @100°C	mm^2/s	ASTM D7042	18.1
Flash Point COC	°C	ASTM D92	>201
Pour Point	°C	ASTM D97	-27
Total Acid Number	mgKOH/g	ASTM D974	0.45

Date Issued: 20-12-2015	Supersedes:01-01-2014	Revision Nr.:1

Kyoto Japan Tire (Suisse) S.A
1 Cour de Rive, 1207 Geneva - Switzerland
Tel +41.22. 789 32 00, Fax +41.21.826 11 76
Email sales@kyotojap.com

Kyoto Japan Tire Corporation Ltd.
Tokyo - Japan
www.kyotojap.com

Kyoto Japan HT Fluid TO-4 10W

Product Code:
KJL1517

Kyoto Japan HT Fluid TO-4 10W is a universal high performance machine tool lubricant specially designed for the lubrication of table way. **Kyoto Japan HT Fluid TO-4 10W** meets also the requirements of gear boxes, spindles and hydraulic systems of different machine tools.

Kyoto Japan HT Fluid TO-4 10W is based on high quality mineral virgin base oil in combination with a special additive to ensure the following properties.

- Excellent stick-slip properties.
- Very good antiwear, antirust and antifoam properties.
- High oxidation stability.
- Good resistance to high pressure and loads.
- Excellent demulsification properties.
- Good filterability.
- Strong adhesion to (vertical) slides

Kyoto Japan HT Fluid TO-4 10W exceeds the following performance limits.

DIN 51524, DIN 51517; FZG 12; US Steel 224

Typical Analysis

Properties	Unit	Method	Typical Value
ISO VG Grade			220
Density @15°C	kg/m^3	ASTM D4052	892
Kin. Viscosity @40°C	mm^2/s	ASTM D7042	220
Kin. Viscosity @100°C	mm^2/s	ASTM D7042	18.1
Flash Point COC	°C	ASTM D92	>201
Pour Point	°C	ASTM D97	-27
Total Acid Number	mgKOH/g	ASTM D974	0.45

Date Issued: 20-12-2015	Supersedes:01-01-2014	Revision Nr.:1

Kyoto Japan Tire (Suisse) S.A
1 Cour de Rive, 1207 Geneva - Switzerland
Tel +41.22. 789 32 00, Fax +41.21.826 11 76
Email sales@kyotojap.com

Kyoto Japan Tire Corporation Ltd.
Tokyo - Japan
www.kyotojap.com

Kyoto Japan HT Fluid TO-4 30

Product Code:
KJL1518

Kyoto Japan HT Fluid TO-4 30 is specifically designed for powershift transmissions, final drives and wet brakes on heavy duty off-highway equipment used in earthmoving, mining logging, road transport and agricultural applications.

Kyoto Japan HT Fluid TO-4 30 is formulated with high refined solvent mineral base stock in combination with a special additive package to reach the following properties.

- Excellent thermal- and oxidation stability.
- Very good dispersity and detergency.
- High anti-foam, anti-wear and anti-corrosion properties.
- Excellent protection against Bore Polishing.
- Extended drain intervals possible.

Kyoto Japan HT Fluid TO-4 30 exceeds the following performance criteria:

Caterpillar TO-4 Komatsu KES 07.868.1 Allison C4 API CF-2/CF
ZF TE-ML 03

Typical Analysis

Properties	Unit	Method	Typical Value
SAE Grade		SAE J3000	30
Density @15°C	kg/m^3	ASTM D4052	892
Kin. Viscosity @40°C	mm^2/s	ASTM D7042	90.5
Kin. Viscosity @100°C	mm^2/s	ASTM D7042	10.5
Viscosity Index		ASTM D2270	98
Flash Point COC	°C	ASTM D92	>201
Pour Point	°C	ASTM D97	-33
Total Base Number	mgKOH/g	ASTM D2896	7.6

Date Issued: 20-12-2015	Supersedes:01-01-2014	Revision Nr.:1

Kyoto Japan Tire (Suisse) S.A
1 Cour de Rive, 1207 Geneva - Switzerland
Tel +41.22. 789 32 00, Fax +41.21.826 11 76
Email sales@kyotojap.com

Kyoto Japan Tire Corporation Ltd.
Tokyo - Japan
www.kyotojap.com

Kyoto Japan Engine LA 40

Product Code:
KJL1519

Kyoto Japan Engine LA 40 is a Low Ash high performance Heavy Duty Gas Engine Oil specially designed for use in stationary gas engines which run on natural and/or biogas and operate under severe conditions en high temperatures.

Kyoto Japan Engine LA 40 is based on a high quality hydro processed base oils in combination with a special selected additive package to obtain the following properties:

- Excellent thermal-, nitration-, and oxidation stability.
- Reducing of combustion chamber deposits.
- Minimize ring scuffing.
- Protect against corrosive wear.
- Improving engine performance.

Kyoto Japan Engine LA 40 exceeds the following performance criteria:

API CF; Waukesha Cogeneration; Dresser Rand Category III, Jenbacher

Typical Analysis

Properties	Unit	Method	Typical Value
SAE Grade		SAE J3000	40
Density @15°C	kg/m^3	ASTM D4052	894
Kin. Viscosity @40°C	mm^2/s	ASTM D445	144
Kin. Viscosity @100°C	mm^2/s	ASTM D445	14.5
Viscosity Index		ASTM D2270	95
Flash Point COC	°C	ASTM D92	>201
Pour Point	°C	ASTM D97	-15
Total Base Number	mgKOH/g	ASTM D2896	6.0
Sulphated Ash	%Wt	ASTM D78	0.49

Date Issued: 20-12-2015	Supersedes:01-01-2014	Revision Nr.:1

Kyoto Japan Tire (Suisse) S.A
1 Cour de Rive, 1207 Geneva - Switzerland
Tel +41.22. 789 32 00, Fax +41.21.826 11 76
Email sales@kyotojap.com

Kyoto Japan Tire Corporation Ltd.
Tokyo - Japan
www.kyotojap.com

Kyoto JapanHeat Transfert 32

Product Code:
KJL1520

Kyoto JapanHeat Transfert 32 is a premium quality heat transfer oil intended for use in closed indirect heating systems with expansion tanks temperatures up to 315°C.

Kyoto JapanHeat Transfert 32 is based on high quality mineral base oil to ensure the following properties:

- Excellent thermal and oxidation stability.
- Minimizes deposit formation and viscosity increase.
- Extended service life and reduced downtime.
- Exceptional resistance to thermal cracking and decomposition enables this oil to perform well up to a maximum bulk oil temperature of 315°C with minimal interference with heat transfer capability.
- High specific heat and thermal conductivity of this oil provides more rapid heat dissipation.
- Superior low temperature fluidity ensures quick circulation at start-up and reduced risk of local over-heating.
- Non corrosive to aluminum, steel, copper, brass or bronze.
- Non-toxicity of this oil provides easy disposal of used oil.

Typical Properties:

Density at 15°C	kg/m^3	856
Density at 100°C	kg/m^3	798
Density at 200°C	kg/m^3	728
Kinematic Viscosity at 100°C	mm^2/s	6,34
Kinematic Viscosity at 40°C	mm^2/s	41,5
Pour Point	°C	-21
Flash Point COC	°C	220
Total Acid Number	mgKOH/g	0,1
Spec. Heat at 300°C	KJ/kg*K	3,051
Spec. Heat at 200°C	KJ/kg*K	2,757
Spec. Heat at 100°C	KJ/kg*K	2,343
Thermal conductivity at 150°C	W/m*K	0,1099
Max. film temperature	°C	330
Max. bulk (flow) temperature	°C	315

Kyoto Japan Tire (Suisse) S.A
1 Cour de Rive, 1207 Geneva - Switzerland
Tel +41.22. 789 32 00, Fax +41.21.826 11 76
Email sales@kyotojap.com

Kyoto Japan Tire Corporation Ltd.
Tokyo - Japan
www.kyotojap.com

KYOTO JAPAN LUBRICANTS

Product Code:

KJL1520

The table of heat specifications depended on temperature

Temperature °C	Density, g/cc	Specific heat, J/kg- degC	Thermal Conductivity, W/M-degC	Kin. Viscosity mm2/s
0	0.8633	1864.0	0.1312	361.20
20	0.8507	1965.0	0.1284	92.10
40	0.8379	2063.0	0.1255	41.50
60	0.8249	2159.0	0.1227	16.20
80	0.8117	2252.0	0.1198	9.20
100	0.7983	2342.5	0.1170	6.34
110	0.7915	2386.5	0.1156	4.70
120	0.7846	2430.5	0.1142	3.91
140	0.7708	2515.5	0.1113	2.78
160	0.7566	2598.5	0.1085	2.32
180	0.7422	2679.0	0.1056	1.67
200	0.7275	2756.5	0.1028	1.36
220	0.7125	2832.0	0.1000	1.14

Kyoto Japan Tire (Suisse) S.A
1 Cour de Rive, 1207 Geneva - Switzerland
Tel +41.22. 789 32 00, Fax +41.21.826 11 76
Email sales@kyotojap.com

Kyoto Japan Tire Corporation Ltd.
Tokyo - Japan
www.kyotojap.com

Kyoto Japan Marine OIL SG 312

Product Code:
KJL1521

Kyoto Japan Marine OIL SG 312 is a premium quality trunk piston engine oil designed for use in the modern medium speed diesel engines operating on distillate fuels.

Kyoto Japan Marine OIL SG 312 is based on high quality virgin mineral base oil in combination with a unique additive package to ensure the following properties:

- Superior detergency ensures piston and crankcase cleanliness.
- Improved anti-wear property minimizes engine wear.
- Excellent thermo-oxidative stability.
- Protection of engine parts against corrosive combustion products.
- Better demulsibility characteristics ensure water.
- Special rust & corrosion inhibitors prevent corrosion of engine parts in severe salt water environment.
- Excellent dispersity and detergency properties.
- Good protection against "Bore Polishing" and lacquering.

Kyoto Japan Marine OIL SG 312 exceeds the following performance criteria:

API CF

Typical Analysis

Properties	Unit	Method	Typical Value
SAE Grade		SAE J 300	30
Density @15°C	kg/m^3	ASTM D4052	895
Kin. Viscosity @40°C	mm^2/s	ASTM D7042	102
Kin. Viscosity @100°C	mm^2/s	ASTM D7042	11.5
Viscosity Index		ASTM D2270	98
Flash Point COC	°C	ASTM D92	>201
Pour Point	°C	ASTM D97	-21
Total Base Number	mgKOH/g	ASTM D2896	12
Sulphated Ash	%Wt	ASTM D874	1.6

Date Issued: 20-12-2015	Supersedes:01-01-2014	Revision Nr.:1

Kyoto Japan Tire (Suisse) S.A
1 Cour de Rive, 1207 Geneva - Switzerland
Tel +41.22. 789 32 00, Fax +41.21.826 11 76
Email sales@kyotojap.com

Kyoto Japan Tire Corporation Ltd.
Tokyo - Japan
www.kyotojap.com

Kyoto Japan Marine OIL SG 412

Product Code:
KJL1522

Kyoto Japan Marine OIL SG 412 is a premium quality trunk piston engine oil designed for use in the modern medium speed diesel engines operating on distillate fuels.

Kyoto Japan Marine OIL SG 412 a unique additive package to ensure the following properties:

- Superior detergency ensures piston and crankcase cleanliness.
- Improved anti-wear property minimizes engine wear.
- Excellent thermo-oxidative stability.
- Protection of engine parts against corrosive combustion products.
- Better demulsibility characteristics ensure water.
- Special rust & corrosion inhibitors prevent corrosion of engine parts in severe salt water environment.
- Excellent dispersity and detergency properties.
- Good protection against "Bore Polishing" and lacquering.

Kyoto Japan Marine OIL SG 412 exceeds the following performance criteria:

API CF

Typical Analysis

Properties	Unit	Method	Typical Value
SAE Grade		SAE J 300	40
Density @15°C	kg/m^3	ASTM D4052	902
Kin. Viscosity @40°C	mm^2/s	ASTM D7042	145
Kin. Viscosity @100°C	mm^2/s	ASTM D7042	15.5
Viscosity Index		ASTM D2270	96
Flash Point COC	°C	ASTM D92	>201
Pour Point	°C	ASTM D97	-18
Total Base Number	mgKOH/g	ASTM D2896	12
Sulphated Ash	%Wt	ASTM D874	1.6

Date Issued: 20-12-2015	Supersedes:01-01-2014	Revision Nr.:1

Kyoto Japan Tire (Suisse) S.A
1 Cour de Rive, 1207 Geneva - Switzerland
Tel +41.22. 789 32 00, Fax +41.21.826 11 76
Email sales@kyotojap.com

Kyoto Japan Tire Corporation Ltd.
Tokyo - Japan
www.kyotojap.com

Kyoto Japan Marine MD0 4015

Product Code:
KJL1523

Kyoto Japan Marine MD0 4015 is a premium quality trunk piston engine oil designed for use in the modern medium speed diesel engines operating on distillate fuels.

Kyoto Japan Marine MD0 4015 is a premium quality trunk piston engine oil designed for use in the modern medium speed diesel engines operating on distillate fuels.

Kyoto Japan Marine MD0 4015 is based on high quality virgin mineral base oil in combination with a unique additive package to ensure the following properties:

- Superior detergency ensures piston and crankcase cleanliness.
- Improved anti-wear property minimizes engine wear.
- Excellent thermo-oxidative stability.
- Protection of engine parts against corrosive combustion products.
- Better demulsibility characteristics ensure water.
- Special rust & corrosion inhibitors prevent corrosion of engine parts in severe salt water environment.
- Excellent dispersity and detergency properties.
- Good protection against "Bore Polishing" and lacquering.

Marine Oil SG 415 exceeds the following performance criteria:

API CF

Typical Analysis

Properties	Unit	Method	Typical Value
SAE Grade		SAE J 300	40
Density @15°C	kg/m^3	ASTM D4052	903
Kin. Viscosity @40°C	mm^2/s	ASTM D7042	145
Kin. Viscosity @100°C	mm^2/s	ASTM D7042	15.5
Viscosity Index		ASTM D2270	95
Flash Point COC	°C	ASTM D92	>201
Pour Point	°C	ASTM D97	-18
Total Base Number	mgKOH/g	ASTM D2896	15
Sulphated Ash	%Wt	ASTM D874	1.9

Date Issued: 20-12-2015	Supersedes:01-01-2014	Revision Nr.:1

Kyoto Japan Tire (Suisse) S.A
1 Cour de Rive, 1207 Geneva - Switzerland
Tel +41.22. 789 32 00, Fax +41.21.826 11 76
Email sales@kyotojap.com

Kyoto Japan Tire Corporation Ltd.
Tokyo - Japan
www.kyotojap.com

Kyoto Japan Marine OIL SG 430

Product Code:
KJL1524

Kyoto Japan Marine OIL SG 430 is a premium quality multifunctional trunk piston engine oil designed for use in the latest highly rated medium speed diesel engines operating on residual fuels with a max. sulphur content of 3.5% in marine, power generation and industrial applications.

Kyoto Japan Marine OIL SG 430 is based on high quality virgin mineral base oil in combination with a unique additive package to ensure the following properties:

- Exceptional detergency reduces build-up of soot & black sludge, improves tolerance for heavy fuel contaminants and keeps the engine clean
- Acidic by-products are effectively neutralized and the engine is protected from corrosive wear by the unique formulation providing the reserve alkalinity
- Superior demulsibility characteristics ensure water.
- Robust antiwear technology provides excellent piston & linear wear control and good gear performance.
- Excellent thermo-oxidative stability retards oil degradation facilitating extended oil life

Typical Analysis

Properties	Unit	Method	Typical Value
SAE Grade		SAE J 300	40
Density @15°C	kg/m^3	ASTM D4052	906
Kin. Viscosity @40°C	mm^2/s	ASTM D7042	143
Kin. Viscosity @100°C	mm^2/s	ASTM D7042	14.5
Viscosity Index		ASTM D2270	99
Flash Point COC	°C	ASTM D92	>201
Pour Point	°C	ASTM D97	-21
Total Base Number	mgKOH/g	ASTM D2896	30
Sulphated Ash	%Wt	ASTM D874	3.7

Date Issued: 20-12-2015	Supersedes:01-01-2014	Revision Nr.:1

Kyoto Japan Tire (Suisse) S.A
1 Cour de Rive, 1207 Geneva - Switzerland
Tel +41.22. 789 32 00, Fax +41.21.826 11 76
Email sales@kyotojap.com

Kyoto Japan Tire Corporation Ltd.
Tokyo - Japan
www.kyotojap.com

Kyoto Japan Marine OIL SG 440

Product Code:
KJL1525

Kyoto Japan Marine OIL SG 440 is a premium quality multifunctional trunk piston engine oil designed for use in the latest highly rated medium speed diesel engines operating on residual fuels with a max. sulphur content of 3.5% in marine, power generation and industrial applications.

Kyoto Japan Marine OIL SG 440 is based on high quality virgin mineral base oil in combination with a unique additive package to ensure the following properties:

- Exceptional detergency reduces build-up of soot & black sludge, improves tolerance for heavy fuel contaminants and keeps the engine clean
- Acidic by-products are effectively neutralized and the engine is protected from corrosive wear by the unique formulation providing the reserve alkalinity
- Superior demulsibility characteristics ensure water.
- Robust antiwear technology provides excellent piston & linear wear control and good gear performance.
- Excellent thermo-oxidative stability retards oil degradation facilitating extended oil life

Typical Analysis

Properties	Unit	Method	Typical Value
SAE Grade		SAE J 300	40
Density @15°C	kg/m^3	ASTM D4052	906
Kin. Viscosity @40°C	mm^2/s	ASTM D7042	145
Kin. Viscosity @100°C	mm^2/s	ASTM D7042	14.5
Viscosity Index		ASTM D2270	99
Flash Point COC	°C	ASTM D92	>201
Pour Point	°C	ASTM D97	-21
Total Base Number	mgKOH/g	ASTM D2896	40
Sulphated Ash	%Wt	ASTM D874	4.9

Date Issued: 20-12-2015	Supersedes:01-01-2014	Revision Nr.:1

Kyoto Japan Tire (Suisse) S.A
1 Cour de Rive, 1207 Geneva - Switzerland
Tel +41.22. 789 32 00, Fax +41.21.826 11 76
Email sales@kyotojap.com

Kyoto Japan Tire Corporation Ltd.
Tokyo - Japan
www.kyotojap.com

Kyoto Japan Marine OIL 307

Product Code:
KJL1526

Kyoto Japan Marine OIL 307 is a premium quality system oil designed for modern highly rated low speed crosshead marine engines including those employing system oil for piston cooling.

Kyoto Japan Marine OIL 307 is based on high quality virgin mineral base oil in combination with a unique additive package to ensure the following properties:

- Excellent thermo-oxidative stability.
- Improved detergency keeps crankcase clean.
- Superior water separation characteristics result in trouble free operations.
- Special rust inhibitors protect critical bearing surfaces from rusting.
- Adequate TBN ensures protection against corrosive combustion products.
- Good load bearing capabilities reduce wear in heavily loaded bearings.

Typical Analysis

Properties	Unit	Method	Typical Value
SAE Grade		SAE J 300	30
Density @15°C	kg/m^3	ASTM D4052	891
Kin. Viscosity @40°C	mm^2/s	ASTM D7042	94.0
Kin. Viscosity @100°C	mm^2/s	ASTM D7042	10.6
Viscosity Index		ASTM D2270	98
Flash Point COC	°C	ASTM D92	>201
Pour Point	°C	ASTM D97	-21
Total Base Number	mgKOH/g	ASTM D2896	7.5
Sulphated Ash	%Wt	ASTM D874	1.2

Date Issued: 20-12-2015	Supersedes:01-01-2014	Revision Nr.:1

Kyoto Japan Tire (Suisse) S.A
1 Cour de Rive, 1207 Geneva - Switzerland
Tel +41.22. 789 32 00, Fax +41.21.826 11 76
Email sales@kyotojap.com

Kyoto Japan Tire Corporation Ltd.
Tokyo - Japan
www.kyotojap.com

Kyoto Japan Marine OIL 407

Product Code:
KJL1527

Kyoto Japan Marine OIL 407 is a premium quality trunk piston engine oil designed for use in the modern medium speed diesel engines operating on distillate fuels.

Kyoto Japan Marine OIL 407 is based on high quality virgin mineral base oil in combination with a unique additive package to ensure the following properties:

- Superior detergency ensures piston and crankcase cleanliness.
- Improved anti-wear property minimizes engine wear.
- Excellent thermo-oxidative stability.
- Protection of engine parts against corrosive combustion products.
- Better demulsibility characteristics ensure water.
- Special rust & corrosion inhibitors prevent corrosion of engine parts in severe salt water environment.
- Excellent dispersity and detergency properties.
- Good protection against "Bore Polishing" and lacquering.

Kyoto Japan Marine OIL 407 exceeds the following performance criteria:

API CF

Typical Analysis

Properties	Unit	Method	Typical Value
SAE Grade		SAE J 300	40
Density @15°C	kg/m^3	ASTM D4052	898
Kin. Viscosity @40°C	mm^2/s	ASTM D7042	145
Kin. Viscosity @100°C	mm^2/s	ASTM D7042	15.5
Viscosity Index		ASTM D2270	96
Flash Point COC	°C	ASTM D92	>201
Pour Point	°C	ASTM D97	-18
Total Base Number	mgKOH/g	ASTM D2896	7
Sulphated Ash	%Wt	ASTM D874	1.1

Date Issued: 20-12-2015	Supersedes:01-01-2014	Revision Nr.:1

Kyoto Japan Tire (Suisse) S.A
1 Cour de Rive, 1207 Geneva - Switzerland
Tel +41.22. 789 32 00, Fax +41.21.826 11 76
Email sales@kyotojap.com

Kyoto Japan Tire Corporation Ltd.
Tokyo - Japan
www.kyotojap.com

Kyoto Japan Marine OIL DDC 40

Product Code:
KJL1528

Kyoto Japan Marine OIL DDC 40 is premium quality monograde engine oil developed for high output, high speed two-cycle diesel engines. This oil is designed to exceed the performance requirements of API CF/CF-2 and is particularly recommended for Detroit Diesel two-cycle diesel engines in marine fleets operating on low sulphur fuels.

Kyoto Japan Marine OIL DDC 40 is based on high quality mineral base stocks in combination with a special selected additive package to achieve to following properties.

- Excellent detergency reduces deposits, sludge build-up & varnish.
- Extend engine life & durability
- Superior thermo-oxidative stability.
- Improved antiwear technology protects against scuffing & wear of cylinder liner and walls
- Special rust inhibitors retard rust & corrosion formation in critical engine parts
- Adequate TBN levels ensure protection against corrosive combustion products

Kyoto Japan Marine OIL DDC 40 exceeds the following performance criteria:

Exceeds API CF/CF-2

Typical Analysis

Properties	Unit	Method	Typical Value
SAE Grade		SAE J3000	SAE 40
Density @15°C	kg/m^3	ASTM D4052	887
Kin. Viscosity @40°C	mm^2/s	ASTM D7042	145
Kin. Viscosity @100°C	mm^2/s	ASTM D7042	14.3
Viscosity Index		ASTM D2270	96
Flash Point COC	°C	ASTM D92	210
Pour Point	°C	ASTM D97	-12
Total Base Number	mgKOH/g	ASTM D2896	7.5
Sulphated Ash	%Wt	ASTM D874	0.8

Date Issued: 20-12-2015	Supersedes:01-01-2014	Revision Nr.:1

Kyoto Japan Tire (Suisse) S.A
1 Cour de Rive, 1207 Geneva - Switzerland
Tel +41.22. 789 32 00, Fax +41.21.826 11 76
Email sales@kyotojap.com

Kyoto Japan Tire Corporation Ltd.
Tokyo - Japan
www.kyotojap.com

Kyoto Japan Compressor 32

Product Code:
KJL1529

Kyoto Japan Compressor 32 is a high performance ashless air compressor oil specially designed to meet the stringent requirements of major compressor manufacturers. **Kyoto Japan Compressor 32** is suited for reciprocating air-, rotary screw and vane compressors. Also used in circulating oil systems, plain and rolling element bearings, lightly loaded Gear sets, etc

Kyoto Japan Compressor 32 is based on high quality mineral base oil in combination with a unique additive package to ensure the following properties:

- Excellent thermo-oxidative
- Improved equipment reliability, availability and efficiency.
- Low ash and carbon forming tendency ensures improved valve performance
- Reduced potential for fires and explosions in the discharge systems.
- Exceptional wear and rust.
- Superior demulsibility reduces oil carryover and corrosion, maintains lubrication efficiency.
- Reduces sludge formation and improves life of coalesces

Kyoto Japan Compressor 32 exceeds the following performance criteria:

DIN 51506 VBL/VCL/VDL ISO 6521-DAA/DAB/DAG/DAH DIN 51524
Vickers M-2950-S/I-286-S AFNOR NF E 48-603 (HM, HV)

Typical Analysis

Properties	Unit	Method	Typical Value
ISO VG Grade		ISO 3348	32
Density @15°C	kg/m^3	ASTM D4052	844
Kin. Viscosity @40°C	mm^2/s	ASTM D7042	32.6
Kin. Viscosity @100°C	mm^2/s	ASTM D7042	5.4
Viscosity Index		ASTM D2270	98
Flash Point COC	°C	ASTM D92	>190
Pour Point	°C	ASTM D97	-15
Water Separability @54°C	Minutes	STM D1401	Pass
Air Release Value @50°C	Minutes	ASTM D3247	Pass

Date Issued: 20-12-2015	Supersedes:01-01-2014	Revision Nr.:1

Kyoto Japan Tire (Suisse) S.A
1 Cour de Rive, 1207 Geneva - Switzerland
Tel +41.22. 789 32 00, Fax +41.21.826 11 76
Email sales@kyotojap.com

Kyoto Japan Tire Corporation Ltd.
Tokyo - Japan
www.kyotojap.com

Kyoto Japan Compressor 46

Product Code:
KJL1530

Kyoto Japan Compressor 46 is a high performance ashless air compressor oil specially designed to meet the stringent requirements of major compressor manufacturers. **Kyoto Japan Compressor 46** is suited for reciprocating air-, rotary screw and vane compressors. Also used in circulating oil systems, plain and rolling element bearings, lightly loaded Gear sets, etc

Kyoto Japan Compressor 46 is based on high quality mineral base oil in combination with a unique additive package to ensure the following properties:

- Excellent thermo-oxidative
- Improved equipment reliability, availability and efficiency.
- Low ash and carbon forming tendency ensures improved valve performance
- Reduced potential for fires and explosions in the discharge systems.
- Exceptional wear and rust.
- Superior demulsibility reduces oil carryover and corrosion, maintains lubrication efficiency.
- Reduces sludge formation and improves life of coalesces

Kyoto Japan Compressor 46 exceeds the following performance criteria:

DIN 51506 VBL/VCL/VDL ISO 6521-DAA/DAB/DAG/DAH DIN 51524
Vickers M-2950-S/I-286-S AFNOR NF E 48-603 (HM, HV)

Typical Analysis

Properties	Unit	Method	Typical Value
ISO VG Class			46
Density @15°C	kg/m^3	ASTM D4052	875
Kin. Viscosity @40°C	mm^2/s	ASTM D7042	46.1
Kin. Viscosity @100°C	mm^2/s	ASTM D7042	6.6
Viscosity Index		ASTM D2270	98
Flash Point COC	°C	ASTM D92	>201
Pour Point	°C	ASTM D97	-30
FZG A/8, 3/90°C		DIN 51354-2	12
Demulsibility @54°C	min	DIN 51599	Pass

Date Issued: 20-12-2015	Supersedes:01-01-2014	Revision Nr.:1

Kyoto Japan Tire (Suisse) S.A
1 Cour de Rive, 1207 Geneva - Switzerland
Tel +41.22. 789 32 00, Fax +41.21.826 11 76
Email sales@kyotojap.com

Kyoto Japan Tire Corporation Ltd.
Tokyo - Japan
www.kyotojap.com

Kyoto Japan Compressor 68

Product Code:
KJL1531

Kyoto Japan Compressor 68 is a high performance ashless air compressor oil specially designed to meet the stringent requirements of major compressor manufacturers. **Kyoto Japan Compressor 68** is suited for reciprocating air-, rotary screw and vane compressors. Also used in circulating oil systems, plain and rolling element bearings, lightly loaded Gear sets, etc

Kyoto Japan Compressor 68 is based on high quality mineral base oil in combination with a unique additive package to ensure the following properties:

- Excellent thermo-oxidative
- Improved equipment reliability, availability and efficiency.
- Low ash and carbon forming tendency ensures improved valve performance
- Reduced potential for fires and explosions in the discharge systems.
- Exceptional wear and rust.
- Superior demulsibility reduces oil carryover and corrosion, maintains lubrication efficiency.
- Reduces sludge formation and improves life of coalesces

Kyoto Japan Compressor 68 exceeds the following performance criteria:

DIN 51506 VBL/VCL/VDL ISO 6521-DAA/DAB/DAG/DAH DIN 51524
Vickers M-2950-S/I-286-S AFNOR NF E 48-603 (HM, HV)

Typical Analysis

Properties	Unit	Method	Typical Value
ISO VG Grade		ISO 3348	68
Density @15°C	kg/m^3	ASTM D4052	850
Kin. Viscosity @40°C	mm^2/s	ASTM D7042	68.3
Kin. Viscosity @100°C	mm^2/s	ASTM D7042	9.1
Viscosity Index		ASTM D2270	105
Flash Point COC	°C	ASTM D92	>190
Pour Point	°C	ASTM D97	-15
Water Separability @54°C	Minutes	STM D1401	Pass
Air Release Value @50°C	Minutes	ASTM D3247	Pass

Date Issued: 20-12-2015	Supersedes:01-01-2014	Revision Nr.:1

Kyoto Japan Tire (Suisse) S.A
1 Cour de Rive, 1207 Geneva - Switzerland
Tel +41.22. 789 32 00, Fax +41.21.826 11 76
Email sales@kyotojap.com
Kyoto Japan Tire Corporation Ltd.
Tokyo - Japan
www.kyotojap.com

Kyoto Japan Compressor 100

Product Code:
KJL1532

Kyoto Japan Compressor 100 is a high performance ashless air compressor oil specially designed to meet the stringent requirements of major compressor manufacturers. **Kyoto Japan Compressor 100** is suited for reciprocating air-, rotary screw and vane compressors. Also used in circulating oil systems, plain and rolling element bearings, lightly loaded Gear sets, etc

Kyoto Japan Compressor 100 is based on high quality mineral base oil in combination with a unique additive package to ensure the following properties:

- Excellent thermo-oxidative
- Improved equipment reliability, availability and efficiency.
- Low ash and carbon forming tendency ensures improved valve performance
- Reduced potential for fires and explosions in the discharge systems.
- Exceptional wear and rust.
- Superior demulsibility reduces oil carryover and corrosion, maintains lubrication efficiency.
- Reduces sludge formation and improves life of coalesces

Kyoto Japan Compressor 100 exceeds the following performance criteria:

DIN 51506 VBL/VCL/VDL ISO 6521-DAA/DAB/DAG/DAH DIN 51524
Vickers M-2950-S/I-286-S AFNOR NF E 48-603 (HM, HV)

Typical Analysis

Properties	Unit	Method	Typical Value
ISO VG Grade		ISO 3348	100
Density @15°C	kg/m^3	ASTM D4052	851
Kin. Viscosity @40°C	mm^2/s	ASTM D7042	100.1
Kin. Viscosity @100°C	mm^2/s	ASTM D7042	11.1
Viscosity Index		ASTM D2270	98
Flash Point COC	°C	ASTM D92	>190
Pour Point	°C	ASTM D97	-12
Water Separability @82°C	Minutes	STM D1401	Pass
Air Release Value @75°C	Minutes	ASTM D3247	Pass

Date Issued: 20-12-2015	Supersedes:01-01-2014	Revision Nr.:1

Kyoto Japan Tire (Suisse) S.A
1 Cour de Rive, 1207 Geneva - Switzerland
Tel +41.22. 789 32 00, Fax +41.21.826 11 76
Email sales@kyotojap.com

Kyoto Japan Tire Corporation Ltd.
Tokyo - Japan
www.kyotojap.com

Kyoto Japan Compressor 150

Product Code:
KJL1533

Kyoto Japan Compressor 150 is a high performance ashless air compressor oil specially designed to meet the stringent requirements of major compressor manufacturers. **Kyoto Japan Compressor 150** is suited for reciprocating air-, rotary screw and vane compressors. Also used in circulating oil systems, plain and rolling element bearings, lightly loaded Gear sets, etc

Kyoto Japan Compressor 150 is based on high quality mineral base oil in combination with a unique additive package to ensure the following properties:

- Excellent thermo-oxidative
- Improved equipment reliability, availability and efficiency.
- Low ash and carbon forming tendency ensures improved valve performance
- Reduced potential for fires and explosions in the discharge systems.
- Exceptional wear and rust.
- Superior demulsibility reduces oil carryover and corrosion, maintains lubrication efficiency.
- Reduces sludge formation and improves life of coalesces

Kyoto Japan Compressor 150 exceeds the following performance criteria:

DIN 51506 VBL/VCL/VDL ISO 6521-DAA/DAB/DAG/DAH DIN 51524
Vickers M-2950-S/I-286-S AFNOR NF E 48-603 (HM, HV)

Typical Analysis

Properties	Unit	Method	Typical Value
ISO VG Grade		ISO 3348	150
Density @15°C	kg/m^3	ASTM D4052	892
Kin. Viscosity @40°C	mm^2/s	ASTM D7042	100
Kin. Viscosity @100°C	mm^2/s	ASTM D7042	14.4
Viscosity Index		ASTM D2270	100
Flash Point COC	°C	ASTM D92	>190
Pour Point	°C	ASTM D97	-15
Water Separability @54°C	Minutes	STM D1401	Pass
Air Release Value @50°C	Minutes	ASTM D3247	Pass

Date Issued: 20-12-2015	Supersedes:01-01-2014	Revision Nr.:1

Kyoto Japan Tire (Suisse) S.A
1 Cour de Rive, 1207 Geneva - Switzerland
Tel +41.22. 789 32 00, Fax +41.21.826 11 76
Email sales@kyotojap.com

Kyoto Japan Tire Corporation Ltd.
Tokyo - Japan
www.kyotojap.com

Kyoto Japan Turbine Oil 32

Product Code:
KJL1534

Kyoto Japan Turbine Oil 32 is a supreme performance turbine oil specially designed for use in geared and non-geared steam turbines, gas turbines and combined cycle gas turbines (CCGT) including the gas turbines operating at high temperatures.
Kyoto Japan Turbine Oil 32 is based on high quality base oil in combination with a unique additive package to ensure the following properties.

- Outstanding thermal and oxidation stability.
- Prevents sludge formation, controls deposits and minimizes oil degradation.
- Superior anti-wear property and load carrying capability provide excellent protection for geared turbines
- Excellent water separation capability resists formation of emulsion and 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.

Kyoto Japan Turbine Oil 32 exceeds the following performance criteria:

ASTM D4304 Type II	DIN 51515 TD/TG	ISO 8086 TSE/TGE/TSA/TGA
ALSTOM HTGD 90117 V	GEK 32568E/32568F/46506D/28143A/107395A/101941A	
Solar ES 9-224, Class II	Siemens TLV 9013 04	ALSTOM HTGD 90117W

Typical Analysis

Properties	Unit	Method	Typical Value
ISO VG Grade		ISO 3448	32
Density @15°C	kg/m^3	D4052	852
Kin. Viscosity @40°C	mm^2/s	ASTM D7042	32
Kin. Viscosity @100°C	mm^2/s	ASTM D7042	5.7
Viscosity Index		D2270	105
Flash Point COC	°C	D92	>204
Pour Point	°C	D97	-24
Total Acid Number	mgKOH/g	D664	0.1
Copper Corrosion		D130	1b
Air Release Value @50°C	Minutes	D3427	Pass
Water separability @54°C		D1401	Pass
FZG, Fail Load Stage		DIN 51534-2	10
Oil Stability Test (TOST)	Hrs	D943	>10.000

Date Issued: 20-12-2015	Supersedes:01-01-2014	Revision Nr.:1

Kyoto Japan Tire (Suisse) S.A
1 Cour de Rive, 1207 Geneva - Switzerland
Tel +41.22. 789 32 00, Fax +41.21.826 11 76
Email sales@kyotojap.com

Kyoto Japan Tire Corporation Ltd.
Tokyo - Japan
www.kyotojap.com

Kyoto Japan Turbine Oil 46

Product Code:
KJL1535

Kyoto Japan Turbine Oil 46 is a supreme performance turbine oil specially designed for use in geared and non-geared steam turbines, gas turbines and combined cycle gas turbines (CCGT) including the gas turbines operating at high temperatures.
Kyoto Japan Turbine Oil 46 is based on high quality base oil in combination with a unique additive package to ensure the following properties:

- Outstanding thermal and oxidation stability.
- Prevents sludge formation, controls deposits and minimizes oil degradation.
- Superior anti-wear property and load carrying capability provide excellent protection for geared turbines
- Excellent water separation capability resists formation of emulsion and 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.

Kyoto Japan Turbine Oil 46 exceeds the following performance criteria:

ASTM D4304 Type II	DIN 51515 TD/TG	ISO 8086 TSE/TGE/TSA/TGA
ALSTOM HTGD 90117 V	GEK 32568E/32568F/46506D/28143A/107395A/101941A	
Solar ES 9-224, Class II	Siemens TLV 9013 04	ALSTOM HTGD 90117W

Typical Analysis

Properties	Unit	Method	Typical Value
ISO VG Grade		ISO 3448	46
Density @15°C	kg/m^3	D4052	855
Kin. Viscosity @40°C	mm^2/s	ASTM D7042	46
Kin. Viscosity @100°C	mm^2/s	ASTM D7042	6.9
Viscosity Index		D2270	104
Flash Point COC	°C	D92	>213
Pour Point	°C	D97	-21
Total Acid Number	mgKOH/g	D664	0.1
Copper Corrosion		D130	1b
Air Release Value @50°C	Minutes	D3427	Pass
Water separability @54°C		D1401	Pass
FZG, Fail Load Stage		DIN 51534-2	10
Oil Stability Test (TOST)	Hrs	D943	>10.000

Date Issued: 20-12-2015	Supersedes:01-01-2014	Revision Nr.:1

Kyoto Japan Tire (Suisse) S.A
1 Cour de Rive, 1207 Geneva - Switzerland
Tel +41.22. 789 32 00, Fax +41.21.826 11 76
Email sales@kyotojap.com

Kyoto Japan Tire Corporation Ltd.
Tokyo - Japan
www.kyotojap.com

Kyoto Japan Turbine Oil 68

Product Code:
KJL1536

Kyoto Japan Turbine Oil 68 is a supreme performance turbine oil specially designed for use in geared and non-geared steam turbines, gas turbines and combined cycle gas turbines (CCGT) including the gas turbines operating at high temperatures.
Kyoto Japan Turbine Oil 68 is based on high quality base oil in combination with a unique additive package to ensure the following properties:

- Outstanding thermal and oxidation stability.
- Prevents sludge formation, controls deposits and minimizes oil degradation.
- Superior anti-wear property and load carrying capability provide excellent protection for geared turbines
- Excellent water separation capability resists formation of emulsion and 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.

Kyoto Japan Turbine Oil 68 exceeds the following performance criteria:

ASTM D4304 Type II	DIN 51515 TD/TG	ISO 8086 TSE/TGE/TSA/TGA
ALSTOM HTGD 90117 V	GEK 32568E/32568F/46506D/28143A/107395A/101941A	
Solar ES 9-224, Class II	Siemens TLV 9013 04	ALSTOM HTGD 90117W

Typical Analysis

Properties	Unit	Method	Typical Value
ISO VG Grade		ISO 3448	68
Density @15°C	kg/m^3	D4052	858
Kin. Viscosity @40°C	mm^2/s	ASTM D7042	68
Kin. Viscosity @100°C	mm^2/s	ASTM D7042	9.8
Viscosity Index		D2270	104
Flash Point COC	°C	D92	>213
Pour Point	°C	D97	-15
Total Acid Number	mgKOH/g	D664	0.1
Copper Corrosion		D130	1b
Air Release Value @50°C	Minutes	D3427	Pass
Water separability @54°C		D1401	Pass
FZG, Fail Load Stage		DIN 51534-2	10
Oil Stability Test (TOST)	Hrs	D943	>10.000

Date Issued: 20-12-2015	Supersedes:01-01-2014	Revision Nr.:1

Kyoto Japan Tire (Suisse) S.A
1 Cour de Rive, 1207 Geneva - Switzerland
Tel +41.22. 789 32 00, Fax +41.21.826 11 76
Email sales@kyotojap.com

Kyoto Japan Tire Corporation Ltd.
Tokyo - Japan
www.kyotojap.com

Kyoto Japan Rustilo 30

Product Code:
KJL1537

Kyoto Japan Rustilo 30 is a high quality lubricant which gives the opportunity to protect the internal parts of motors and technical installations for a long period. **Kyoto Japan Rustilo 30** is ideal for protecting internal combustion engines which are to be laid up or temporarily taken out of service and are recommended for use in engines which are operated intermittently – fire engines, standby generators, snowploughs, etc.

Kyoto Japan Rustilo 30 is formulated with high refined solvent mineral base stock in combination with a special additive package to reach the following properties.

- Extreme effective anti-rust agent.
- Good surface wetting agent.
- High oxidation stability.
- Long term storage, exposed parts through long period.
- good moisture and acid contamination of the oil itself.

Typical Analysis

Properties	Unit	Method	Typical Value
SAE Grade		SAE J3000	30
Density @15°C	kg/m^3	ASTM D4052	896
Kin. Viscosity @40°C	mm^2/s	ASTM D7042	110
Kin. Viscosity @100°C	mm^2/s	ASTM D7042	11.5
Viscosity Index		ASTM D2270	96
Flash Point COC	°C	ASTM D92	201
Pour Point	°C	ASTM D97	-18
Total Base Number	mgKOH/g	ASTM D2896	6.8

Date Issued: 20-12-2015	Supersedes:01-01-2014	Revision Nr.:1

Kyoto Japan Tire (Suisse) S.A
1 Cour de Rive, 1207 Geneva - Switzerland
Tel +41.22. 789 32 00, Fax +41.21.826 11 76
Email sales@kyotojap.com

Kyoto Japan Tire Corporation Ltd.
Tokyo - Japan
www.kyotojap.com

Kyoto Japan TICMA HM 10

Product Code:
KJL1571

Kyoto Japan TICMA HM 10 is an universal mineral high grade EP oil for use in heavy duty hydraulic systems and light duty gearboxes, bearings and general lubrication. Not suitable for turbine application.

Kyoto Japan TICMA HM 10 is formulated with high quality refined mineral base stocks in combination with a special EP-additive technology to achieve the following performance.

- Excellent stability against oxidation.
- Very good protection against wear.
- Good water demulsibility.
- Very good foaming properties.
- Very effective to rust and corrosion.

Kyoto Japan TICMA HM 10 exceeds the following performance criteria:

AFNOR NFE 48-603 ISO 11158 HM DIN 51524/2 HLP

Typical Analysis

Properties	Unit	Method	Typical Value
ISO VG Grade		ISO 3448	10
Density @15°C	kg/m^3	ASTM D4052	838
Kin. Viscosity @40°C	mm^2/s	ASTM D7042	10
Viscosity Index		ASTM D2270	97
Flash Point COC, min	°C	ASTM D92	132
Pour Point	°C	ASTM D97	-30
Air Release Value @50°C	Mintues	DIN 51381	Pass
Demulsibility @54°C	Minutes	DIN 51599	Pass

Date Issued: 20-12-2015	Supersedes:01-01-2014	Revision Nr.:1

Kyoto Japan Tire (Suisse) S.A
1 Cour de Rive, 1207 Geneva - Switzerland
Tel +41.22. 789 32 00, Fax +41.21.826 11 76
Email sales@kyotojap.com

Kyoto Japan Tire Corporation Ltd.
Tokyo - Japan
www.kyotojap.com

Kyoto Japan TICMA HM 15

Product Code:
KJL1572

Kyoto Japan TICMA HM 15 is an universal mineral high grade EP oil for use in heavy duty hydraulic systems and light duty gearboxes, bearings and general lubrication. Not suitable for turbine application.

Kyoto Japan TICMA HM 15 is formulated with high quality refined mineral base stocks in combination with a special EP-additive technology to achieve the following performance:

- Excellent stability against oxidation.
- Very good protection against wear.
- Good water demulsibility.
- Very good foaming properties.
- Very effective to rust and corrosion.

Kyoto Japan TICMA HM 15 exceeds the following performance criteria:

AFNOR NFE 48-603 ISO 11158 HM DIN 51524/2 HLP

Typical Analysis

Properties	Unit	Method	Typical Value
ISO VG Grade		ISO 3448	15
Density @15°C	kg/m^3	ASTM D4052	855
Kin. Viscosity @40°C	mm^2/s	ASTM D7042	15
Kin. Viscosity @100°C	mm^2/s	ASTM D7042	3.6
Viscosity Index		ASTM D2270	98
Flash Point COC, min	°C	ASTM D92	180
Pour Point	°C	ASTM D97	-27
Air Release Value @50°C	Mintues	DIN 51381	Pass
Demulsibility @54°C	Minutes	DIN 51599	Pass

Date Issued: 20-12-2015	Supersedes:01-01-2014	Revision Nr.:1

Kyoto Japan Tire (Suisse) S.A
1 Cour de Rive, 1207 Geneva - Switzerland
Tel +41.22. 789 32 00, Fax +41.21.826 11 76
Email sales@kyotojap.com

Kyoto Japan Tire Corporation Ltd.
Tokyo - Japan
www.kyotojap.com

Kyoto Japan TICMA HM 22

Product Code:
KJL1573

Kyoto Japan TICMA HM 22 is an universal mineral high grade EP oil for use in heavy duty hydraulic systems and light duty gearboxes, bearings and general lubrication. Not suitable for turbine application.

Kyoto Japan TICMA HM 22 is formulated with high quality refined mineral base stocks in combination with a special EP-additive technology to achieve the following performance:

- Excellent stability against oxidation.
- Very good protection against wear.
- Good water demulsibility.
- Very good foaming properties.
- Very effective to rust and corrosion.

Kyoto Japan TICMA HM 22 exceeds the following performance criteria:

AFNOR NFE 48-603 ISO 11158 HM DIN 51524/2 HLP

Typical Analysis

Properties	Unit	Method	Typical Value
ISO VG Grade		ISO 3448	22
Density @15°C	kg/m^3	ASTM D4052	861
Kin. Viscosity @40°C	mm^2/s	ASTM D7042	22
Kin. Viscosity @100°C	mm^2/s	ASTM D7042	4.3
Viscosity Index		ASTM D2270	98
Flash Point COC, min	°C	ASTM D92	180
Pour Point	°C	ASTM D97	-27
Air Release Value @50°C	Mintues	DIN 51381	Pass
Demulsibility @54°C	Minutes	DIN 51599	Pass

Date Issued: 20-12-2015	Supersedes:01-01-2014	Revision Nr.:1

Kyoto Japan Tire (Suisse) S.A
1 Cour de Rive, 1207 Geneva - Switzerland
Tel +41.22. 789 32 00, Fax +41.21.826 11 76
Email sales@kyotojap.com

Kyoto Japan Tire Corporation Ltd.
Tokyo - Japan
www.kyotojap.com

Kyoto Japan TICMA HM 32

Product Code:
KJL1574

Kyoto Japan TICMA HM 32 is an universal mineral high grade EP oil for use in heavy duty hydraulic systems and light duty gearboxes, bearings and general lubrication. Not suitable for turbine application.

Kyoto Japan TICMA HM 32 is formulated with high quality refined mineral base stocks in combination with a special EP-additive technology to achieve the following performance:

- Excellent stability against oxidation.
- Very good protection against wear.
- Good water demulsibility.
- Very good foaming properties.
- Very effective to rust and corrosion.

Kyoto Japan TICMA HM 32 exceeds the following performance criteria:

AFNOR NFE 48-603 ISO 11158 HM DIN 51524/2 HLP Denison HF-0
Cincinnati P-68 Sauer Danfoss 520L0463 Eaton Vickers M-2950-S/I-286

Typical Analysis

Properties	Unit	Method	Typical Value
ISO VG Grade		ISO 3448	32
Density @15°C	kg/m^3	ASTM D4052	871
Kin. Viscosity @40°C	mm^2/s	ASTM D7042	32
Kin. Viscosity @100°C	mm^2/s	ASTM D7042	5.4
Viscosity Index		ASTM D2270	98
Flash Point COC, min	°C	ASTM D92	180
Pour Point	°C	ASTM D97	-27
Air Release Value @50°C	Mintues	DIN 51381	Pass
Demulsibility @54°C	Minutes	DIN 51599	Pass

Date Issued: 20-12-2015	Supersedes:01-01-2014	Revision Nr.:1

Kyoto Japan Tire (Suisse) S.A
1 Cour de Rive, 1207 Geneva - Switzerland
Tel +41.22. 789 32 00, Fax +41.21.826 11 76
Email sales@kyotojap.com

Kyoto Japan Tire Corporation Ltd.
Tokyo - Japan
www.kyotojap.com

Kyoto Japan TICMA HM 46

Product Code:
KJL1575

Kyoto Japan TICMA HM 46 is an universal mineral high grade EP oil for use in heavy duty hydraulic systems and light duty gearboxes, bearings and general lubrication. Not suitable for turbine application.

Kyoto Japan TICMA HM 46 is formulated with high quality refined mineral base stocks in combination with a special EP-additive technology to achieve the following performance:

- Excellent stability against oxidation.
- Very good protection against wear.
- Good water demulsibility.
- Very good foaming properties.
- Very effective to rust and corrosion.

Kyoto Japan TICMA HM 46 exceeds the following performance criteria:

AFNOR NFE 48-603 ISO 11158 HM DIN 51524/2 HLP Denison HF-1
Cincinnati P-70 Sauer Danfoss 520L0463 Eaton Vickers M-2950-S/I-286

Typical Analysis

Properties	Unit	Method	Typical Value
ISO VG Grade		ISO 3448	46
Density @15°C	kg/m^3	ASTM D4052	877
Kin. Viscosity @40°C	mm^2/s	ASTM D7042	46
Kin. Viscosity @100°C	mm^2/s	ASTM D7042	8.0
Viscosity Index		ASTM D2270	99
Flash Point COC, min	°C	ASTM D92	180
Pour Point	°C	ASTM D97	-27
Air Release Value @50°C	Mintues	DIN 51381	Pass
Demulsibility @54°C	Minutes	DIN 51599	Pass

Date Issued: 20-12-2015	Supersedes:01-01-2014	Revision Nr.:1

Kyoto Japan Tire (Suisse) S.A
1 Cour de Rive, 1207 Geneva - Switzerland
Tel +41.22. 789 32 00, Fax +41.21.826 11 76
Email sales@kyotojap.com

Kyoto Japan Tire Corporation Ltd.
Tokyo - Japan
www.kyotojap.com

Kyoto Japan TICMA HM 68

Product Code:
KJL1576

Kyoto Japan TICMA HM 68 is an universal mineral high grade EP oil for use in heavy duty hydraulic systems and light duty gearboxes, bearings and general lubrication. Not suitable for turbine application.

Kyoto Japan TICMA HM 68 is formulated with high quality refined mineral base stocks in combination with a special EP-additive technology to achieve the following performance:

- Excellent stability against oxidation.
- Very good protection against wear.
- Good water demulsibility.
- Very good foaming properties.
- Very effective to rust and corrosion.

Kyoto Japan TICMA HM 68 exceeds the following performance criteria:

AFNOR NFE 48-603 ISO 11158 HM DIN 51524/2 HLP Denison HF-2
Cincinnati P-69 Sauer Danfoss 520L0463 Eaton Vickers M-2950-S/I-286

Typical Analysis

Properties	Unit	Method	Typical Value
ISO VG Grade		ISO 3448	68
Density @15°C	kg/m^3	ASTM D4052	885
Kin. Viscosity @40°C	mm^2/s	ASTM D7042	68
Kin. Viscosity @100°C	mm^2/s	ASTM D7042	8.7
Viscosity Index		ASTM D2270	99
Flash Point COC, min	°C	ASTM D92	180
Pour Point	°C	ASTM D97	-27
Air Release Value @50°C	Mintues	DIN 51381	Pass
Demulsibility @54°C	Minutes	DIN 51599	Pass

Date Issued: 20-12-2015	Supersedes:01-01-2014	Revision Nr.:1

Kyoto Japan Tire (Suisse) S.A
1 Cour de Rive, 1207 Geneva - Switzerland
Tel +41.22. 789 32 00, Fax +41.21.826 11 76
Email sales@kyotojap.com

Kyoto Japan Tire Corporation Ltd.
Tokyo - Japan
www.kyotojap.com

Kyoto Japan TICMA HM 100

Product Code:
KJL1577

Kyoto Japan TICMA HM 100 is an universal mineral high grade EP oil for use in heavy duty hydraulic systems and light duty gearboxes, bearings and general lubrication. Not suitable for turbine application.

Kyoto Japan TICMA HM 100 is formulated with high quality refined mineral base stocks in combination with a special EP-additive technology to achieve the following performance:

- Excellent stability against oxidation.
- Very good protection against wear.
- Good water demulsibility.
- Very good foaming properties.
- Very effective to rust and corrosion.

Kyoto Japan TICMA HM 100 exceeds the following performance criteria:

AFNOR NFE 48-603 ISO 11158 HM DIN 51524/2 HLP

Typical Analysis

Properties	Unit	Method	Typical Value
ISO VG Grade		ISO 3448	100
Density @15°C	kg/m^3	ASTM D4052	889
Kin. Viscosity @40°C	mm^2/s	ASTM D7042	100
Kin. Viscosity @100°C	mm^2/s	ASTM D7042	11.2
Viscosity Index		ASTM D2270	99
Flash Point COC, min	°C	ASTM D92	180
Pour Point	°C	ASTM D97	-27
Air Release Value @50°C	Mintues	DIN 51381	Pass
Demulsibility @54°C	Minutes	DIN 51599	Pass

Date Issued: 20-12-2015	Supersedes:01-01-2014	Revision Nr.:1

Kyoto Japan Tire (Suisse) S.A
1 Cour de Rive, 1207 Geneva - Switzerland
Tel +41.22. 789 32 00, Fax +41.21.826 11 76
Email sales@kyotojap.com

Kyoto Japan Tire Corporation Ltd.
Tokyo - Japan
www.kyotojap.com

Kyoto Japan TICMA HV 22

Product Code:
KJL1578

Kyoto Japan TICMA HV 22 is an universal HVI mineral high grade EP oil for use in heavy duty hydraulic systems and light duty gearboxes, bearings and general lubrication. Not suitable for turbine application.

Kyoto Japan TICMA HV 22 is formulated with high quality refined mineral base stocks in combination with a special EP-additive technology to achieve the following performance:

- Excellent stability against oxidation.
- High Viscosity Index
- Very good protection against wear.
- Good water demulsibility.
- Very good foaming properties.
- Very effective to rust and corrosion.
- Very good thermal stability.

Kyoto Japan TICMA HV 22 exceeds the following performance criteria:

AFNOR NFE 48-603	ISO 11158 HV	DIN 51524/3 HVLP	Denison HF-0
Cincinnati P-68	Sauer Danfoss 520L0463	Eaton Vickers M-2950-S/I-386	

Typical Analysis

Properties	Unit	Method	Typical Value
ISO VG Grade		ISO 3448	22
Density @15°C	kg/m^3	ASTM D4052	867
Kin. Viscosity @100°C	mm^2/s	ASTM D7042	3.95
Viscosity Index		ASTM D2270	160
Flash Point COC, min	°C	ASTM D92	>175
Pour Point	°C	ASTM D97	-45
FZG Fail Load Stage, min		DIN 51354-2	11
Air Release Value @50°C	Mintues	DIN 51381	Pass
Demulsibility @54°C	Minutes	DIN 51599	Pass

Date Issued: 20-12-2015	Supersedes:01-01-2014	Revision Nr.:1

Kyoto Japan Tire (Suisse) S.A
1 Cour de Rive, 1207 Geneva - Switzerland
Tel +41.22. 789 32 00, Fax +41.21.826 11 76
Email sales@kyotojap.com

Kyoto Japan Tire Corporation Ltd.
Tokyo - Japan
www.kyotojap.com

Kyoto Japan TICMA HV 32

Product Code:
KJL1579

Kyoto Japan TICMA HV 32 is an universal HVI mineral high grade EP oil for use in heavy duty hydraulic systems and light duty gearboxes, bearings and general lubrication. Not suitable for turbine application.

Kyoto Japan TICMA HV 32 is formulated with high quality refined mineral base stocks in combination with a special EP-additive technology to achieve the following performance:

- Excellent stability against oxidation.
- High Viscosity Index
- Very good protection against wear.
- Good water demulsibility.
- Very good foaming properties.
- Very effective to rust and corrosion.
- Very good thermal stability.

Kyoto Japan TICMA HV 32 exceeds the following performance criteria:

AFNOR NFE 48-603	ISO 11158 HV	DIN 51524/3 HVLP	Denison HF-0
Cincinnati P-68	Sauer Danfoss 520L0463	Eaton Vickers M-2950-S/I-386	

Typical Analysis

Properties	Unit	Method	Typical Value
ISO VG Grade		ISO 3448	32
Density @15°C	kg/m^3	ASTM D4052	871
Kin. Viscosity @100°C	mm^2/s	ASTM D7042	6.3
Viscosity Index		ASTM D2270	150
Flash Point COC, min	°C	ASTM D92	175
Pour Point	°C	ASTM D97	-39
FZG Fail Load Stage, min		DIN 51354-2	11
Air Release Value @50°C	Mintues	DIN 51381	Pass
Demulsibility @54°C	Minutes	DIN 51599	Pass

Date Issued: 20-12-2015	Supersedes:01-01-2014	Revision Nr.:1

Kyoto Japan Tire (Suisse) S.A
1 Cour de Rive, 1207 Geneva - Switzerland
Tel +41.22. 789 32 00, Fax +41.21.826 11 76
Email sales@kyotojap.com

Kyoto Japan Tire Corporation Ltd.
Tokyo - Japan
www.kyotojap.com

Kyoto Japan TICMA HV 46

Product Code:
KJL1580

Kyoto Japan TICMA HV 46 is an universal HVI mineral high grade EP oil for use in heavy duty hydraulic systems and light duty gearboxes, bearings and general lubrication. Not suitable for turbine application.

Kyoto Japan TICMA HV 46 is formulated with high quality refined mineral base stocks in combination with a special EP-additive technology to achieve the following performance:

- Excellent stability against oxidation.
- High Viscosity Index
- Very good protection against wear.
- Good water demulsibility.
- Very good foaming properties.
- Very effective to rust and corrosion.
- Very good thermal stability.

Kyoto Japan TICMA HV 46 exceeds the following performance criteria:

AFNOR NFE 48-603	ISO 11158 HV	DIN 51524/3 HVLP	Denison HF-1
Cincinnati P-70	Sauer Danfoss 520L0463	Eaton Vickers M-2950-S/I-386	

Typical Analysis

Properties	Unit	Method	Typical Value
ISO VG Grade		ISO 3448	46
Density @15°C	kg/m^3	ASTM D4052	875
Kin. Viscosity @100°C	mm^2/s	ASTM D7042	7.7
Viscosity Index		ASTM D2270	150
Flash Point COC, min	°C	ASTM D92	180
Pour Point	°C	ASTM D97	-39
FZG Fail Load Stage, min		DIN 51534-2	11
Air Release Value @50°C	Mintues	DIN 51381	Pass
Demulsibility @54°C	Minutes	DIN 51599	Pass

Date Issued: 20-12-2015	Supersedes:01-01-2014	Revision Nr.:1

Kyoto Japan Tire (Suisse) S.A
1 Cour de Rive, 1207 Geneva - Switzerland
Tel +41.22. 789 32 00, Fax +41.21.826 11 76
Email sales@kyotojap.com

Kyoto Japan Tire Corporation Ltd.
Tokyo - Japan
www.kyotojap.com

Kyoto Japan TICMA HV 68

Product Code:
KJL1581

Kyoto Japan TICMA HV 68 is an universal HVI mineral high grade EP oil for use in heavy duty hydraulic systems and light duty gearboxes, bearings and general lubrication. Not suitable for turbine application.

Kyoto Japan TICMA HV 68 is formulated with high quality refined mineral base stocks in combination with a special EP-additive technology to achieve the following performance.

- Excellent stability against oxidation.
- High Viscosity Index
- Very good protection against wear.
- Good water demulsibility.
- Very good foaming properties.
- Very effective to rust and corrosion.
- Very good thermal stability.

Kyoto Japan TICMA HV 68 exceeds the following performance criteria:

AFNOR NFE 48-603 ISO 11158 HV DIN 51524/3 HVLP Denison HF-2
Cincinnati P-69 Sauer Danfoss 520L0463 Eaton Vickers M-2950-S/I-386

Typical Analysis

Properties	Unit	Method	Typical Value
ISO VG Grade		ISO 3448	68
Density @15°C	kg/m^3	ASTM D4052	881
Kin. Viscosity @100°C	mm^2/s	ASTM D7042	11.9
Viscosity Index		ASTM D2270	150
Flash Point COC, min	°C	ASTM D92	201
Pour Point	°C	ASTM D97	-36
FZG Fail Load Stage, min		DIN 51354-2	11
Air Release Value @50°C	Mintues	DIN 51381	Pass
Demulsibility @54°C	Minutes	DIN 51599	Pass

Date Issued: 20-12-2015	Supersedes:01-01-2014	Revision Nr.:1

Kyoto Japan Tire (Suisse) S.A
1 Cour de Rive, 1207 Geneva - Switzerland
Tel +41.22. 789 32 00, Fax +41.21.826 11 76
Email sales@kyotojap.com

Kyoto Japan Tire Corporation Ltd.
Tokyo - Japan
www.kyotojap.com

Kyoto Japan TICMA HLPD 46

Product Code:
KJL1582

Kyoto Japan TICMA HLPD 46 is heavy duty detergent type ashless anti-wear hydraulic oil specially developed for machine-tool hydraulic systems, mobile hydraulic systems and clutch drives where minor water contamination can be expected.

Kyoto Japan TICMA HLPD 46 is formulated with high quality mineral base oil in combination with a special additive package to ensure to following properties.

- Special detergent and dispersant properties ensure smooth functioning of hydraulic systems by minimizing formation of sticky residues and deposits.
- Excellent water emulsifying ability maintains proper functioning of hydraulic systems even in case of contamination of oil with small amounts of water .
- Superior anti-wear properties help reduce wear of mechanical components .
- High resistance to oxidation and thermal degradation controls the formation of sludge & varnish and improves oil life .
- Superior foam control and rapid air release properties ensure trouble-free operations.
- Effective corrosion inhibitors provide corrosion protection in arduous service conditions.
- Superior thermo- and oxidation stability.

Kyoto Japan TICMA HLPD 46 exceeds the following performance criteria:

DIN 51524/2 HLPD DaimlerChrysler DBL 6721

Typical Analysis

Properties	Unit	Method	Typical Value
ISO VG Grade		ISO 3448	46
Density @15°C	kg/m^3	ASTM D4052	878
Kin. Viscosity @40°C	mm^2/s	ASTM D7042	46
Kin. Viscosity @100°C	mm^2/s	ASTM D7042	6.7
Viscosity Index		ASTM D2270	98
Flash Point COC, min	°C	ASTM D92	>201
Pour Point	°C	ASTM D97	-21
FZG Fail Load Stage, min		DIN 51354-2	12
Air Release Value @50°C	Mintues	DIN 51381	Pass
Demulsibility @54°C	Minutes	DIN 51599	Pass

Date Issued: 20-12-2015	Supersedes:01-01-2014	Revision Nr.:1

Kyoto Japan Tire (Suisse) S.A
1 Cour de Rive, 1207 Geneva - Switzerland
Tel +41.22. 789 32 00, Fax +41.21.826 11 76
Email sales@kyotojap.com

Kyoto Japan Tire Corporation Ltd.
Tokyo - Japan
www.kyotojap.com

Kyoto Japan TICMA HLPD 68

Product Code:
KJL1583

Kyoto Japan TICMA HLPD 68 is heavy duty detergent type ashless anti-wear hydraulic oil specially developed for machine-tool hydraulic systems, mobile hydraulic systems and clutch drives where minor water contamination can be expected.

Kyoto Japan TICMA HLPD 68 is formulated with high quality mineral base oil in combination with a special additive package to ensure to following properties.

- Special detergent and dispersant properties ensure smooth functioning of hydraulic systems by minimizing formation of sticky residues and deposits.
- Excellent water emulsifying ability maintains proper functioning of hydraulic systems even in case of contamination of oil with small amounts of water .
- Superior anti-wear properties help reduce wear of mechanical components .
- High resistance to oxidation and thermal degradation controls the formation of sludge & varnish and improves oil life .
- Superior foam control and rapid air release properties ensure trouble-free operations.
- Effective corrosion inhibitors provide corrosion protection in arduous service conditions.
- Superior thermo- and oxidation stability.

Kyoto Japan TICMA HLPD 68 exceeds the following performance criteria:

Din 51524/2 HLPD DaimlerChrysler DBL 6721

Typical Analysis

Properties	Unit	Method	Typical Value
ISO VG Grade		ISO 3448	68
Density @15°C	kg/m^3	ASTM D4052	886
Kin. Viscosity @40°C	mm^2/s	ASTM D7042	68
Kin. Viscosity @100°C	mm^2/s	ASTM D7042	8.7
Viscosity Index		ASTM D2270	98
Flash Point COC, min	°C	ASTM D92	>201
Pour Point	°C	ASTM D97	-15
FZG Fail Load Stage, min		DIN 51354-2	12
Air Release Value @50°C	Mintues	DIN 51381	Pass
Demulsibility @54°C	Minutes	DIN 51599	Pass

Date Issued: 20-12-2015	Supersedes:01-01-2014	Revision Nr.:1

Kyoto Japan Tire (Suisse) S.A
1 Cour de Rive, 1207 Geneva - Switzerland
Tel +41.22. 789 32 00, Fax +41.21.826 11 76
Email sales@kyotojap.com

Kyoto Japan Tire Corporation Ltd.
Tokyo - Japan
www.kyotojap.com

Kyoto Japan TICMA HLPD 100

Product Code:
KJL1584

Kyoto Japan TICMA HLPD 100 is heavy duty detergent type ashless anti-wear hydraulic oil specially developed for machine-tool hydraulic systems, mobile hydraulic systems and clutch drives where minor water contamination can be expected.

Kyoto Japan TICMA HLPD 100 is formulated with high quality mineral base oil in combination with a special additive package to ensure to following properties.

- Special detergent and dispersant properties ensure smooth functioning of hydraulic systems by minimizing formation of sticky residues and deposits.
- Excellent water emulsifying ability maintains proper functioning of hydraulic systems even in case of contamination of oil with small amounts of water .
- Superior anti-wear properties help reduce wear of mechanical components .
- High resistance to oxidation and thermal degradation controls the formation of sludge & varnish and improves oil life .
- Superior foam control and rapid air release properties ensure trouble-free operations.
- Effective corrosion inhibitors provide corrosion protection in arduous service conditions.
- Superior thermo- and oxidation stability.

Kyoto Japan TICMA HLPD 100 exceeds the following performance criteria:

Din 51524/2 HLPD DaimlerChrysler DBL 6721

Typical Analysis

Properties	Unit	Method	Typical Value
ISO VG Grade		ISO 3448	100
Density @15°C	kg/m^3	ASTM D4052	890
Kin. Viscosity @40°C	mm^2/s	ASTM D7042	100
Kin. Viscosity @100°C	mm^2/s	ASTM D7042	11.3
Viscosity Index		ASTM D2270	98
Flash Point COC, min	°C	ASTM D92	>201
Pour Point	°C	ASTM D97	-15
FZG Fail Load Stage, min		DIN 51354-2	12
Air Release Value @50°C	Mintues	DIN 51381	Pass
Demulsibility @54°C	Minutes	DIN 51599	Pass

Date Issued: 20-12-2015	Supersedes:01-01-2014	Revision Nr.:1

Kyoto Japan Tire (Suisse) S.A
1 Cour de Rive, 1207 Geneva - Switzerland
Tel +41.22. 789 32 00, Fax +41.21.826 11 76
Email sales@kyotojap.com

Kyoto Japan Tire Corporation Ltd.
Tokyo - Japan
www.kyotojap.com

Kyoto Japan TICMA HVLPD 46

Product Code:
KJL1585

Kyoto Japan TICMA HVLPD 46 is heavy duty detergent type ashless anti-wear high viscosity hydraulic oil specially developed for machine-tool hydraulic systems, mobile hydraulic systems and clutch drives where minor water contamination can be expected.

Kyoto Japan TICMA HVLPD 46 is formulated with high quality mineral base oil in combination with a special additive package to ensure to following properties.

- Special detergent and dispersant properties ensure smooth functioning of hydraulic systems by minimizing formation of sticky residues and deposits.
- Excellent water emulsifying ability maintains proper functioning of hydraulic systems even in case of contamination of oil with small amounts of water .
- Superior anti-wear properties help reduce wear of mechanical components .
- High resistance to oxidation and thermal degradation controls the formation of sludge & varnish and improves oil life .
- Superior foam control and rapid air release properties ensure trouble-free operations.
- Effective corrosion inhibitors provide corrosion protection in arduous service conditions.
- Superior thermo- and oxidation stability.
- High Viscosity.

Kyoto Japan TICMA HVLPD 46 exceeds the following performance criteria:
DIN 51524/3 HVLPD ISO 6743/4-L-HV AFNOR NFE 48-603
Daimler DBL 6721

Typical Analysis

Properties	Unit	Method	Typical Value
ISO VG Grade		ISO 3448	46
Density @15°C	kg/m^3	ASTM D4052	878
Kin. Viscosity @40°C	mm^2/s	ASTM D7042	46
Kin. Viscosity @100°C	mm^2/s	ASTM D7042	8.0
Viscosity Index		ASTM D2270	160
Flash Point COC, min	°C	ASTM D92	>201
Pour Point	°C	ASTM D97	-39
FZG Fail Load Stage, min		DIN 51354-2	12
Air Release Value @50°C	Mintues	DIN 51381	Pass
Demulsibility @54°C	Minutes	DIN 51599	Pass

Date Issued: 20-12-2015	Supersedes:01-01-2014	Revision Nr.:1

Kyoto Japan Tire (Suisse) S.A
1 Cour de Rive, 1207 Geneva - Switzerland
Tel +41.22. 789 32 00, Fax +41.21.826 11 76
Email sales@kyotojap.com

Kyoto Japan Tire Corporation Ltd.
Tokyo - Japan
www.kyotojap.com

KYOTO® JAPAN
LUBRICANTS

A Family of
Superior Lubricants
& **Additives**

PROFESSIONAL LUBRICANT
Made in E.U.
European Union

Kyoto Japan Tire (Suisse) S.A
1 Cour de Rive, 1207 Geneva - Switzerland
Tel +41.22. 789 32 00, Fax +41.21.826 11 76
Email sales@kyotojap.com

Kyoto Japan Tire Corporation Ltd.
Tokyo - Japan
www.kyotojap.com