



Product Program **Automotive Lubricants**

1/2019

LUBRICANTS.
TECHNOLOGY.
PEOPLE.

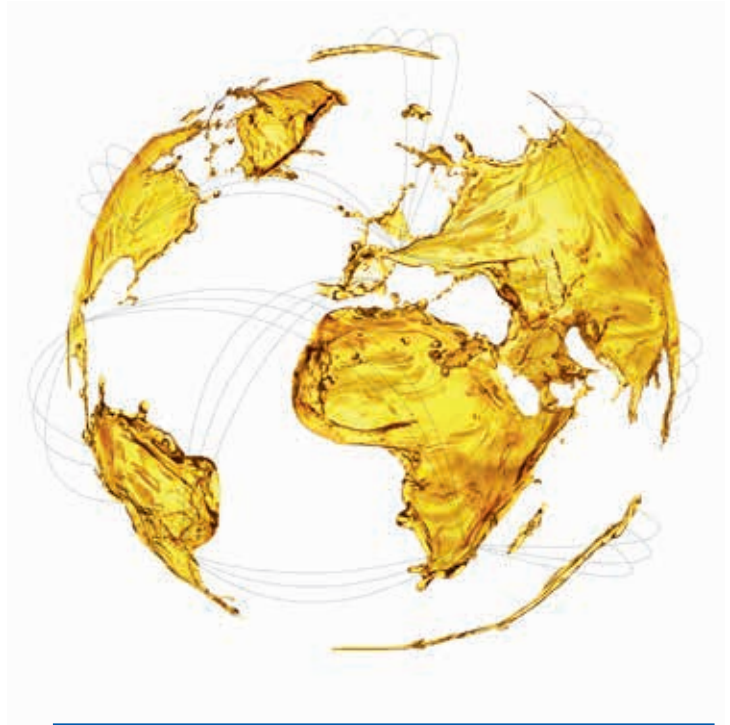


LUBRICANTS. TECHNOLOGY. PEOPLE.

We focus consistently on high-quality lubricants and related specialties.

We develop innovative and holistic solutions for a wide variety of applications.

We value the high level of commitment of our employees and their trusting interaction with one another.



Facts and figures

Company: FUCHS SCHMIERSTOFFE GMBH, a company of the FUCHS Group

Headquarters: Mannheim

Product range: A full range of more than 2,000 products and 6,000 articles

Certifications: IATF 16949, ISO 14001, BS OHSAS 18001, ISO 50001

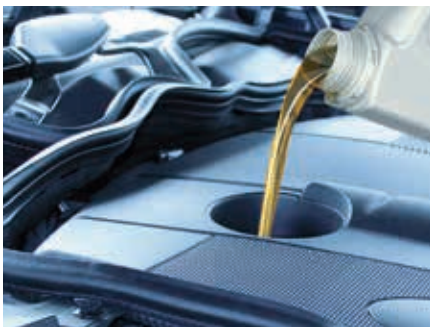
References: One of the leading lubricants OEM for the German automotive industry

FUCHS has developed, produced and sold lubricants and related specialties for more than 85 years – for virtually all areas of application and sectors. With over 100,000 customers and 58 companies worldwide, the FUCHS Group is the leading independent supplier of lubricants.

A team of more than 900 specialists across Germany works to guarantee the satisfaction of our customers. Whatever their requirements, we have the ideal lubricant for their specific applications and processes. In our technology centre we link interdisciplinary expertise in a quick and efficient way – and work on innovative lubricant solutions to meet the demands of today and tomorrow every single day.

FUCHS lubricants stand for performance and sustainability, for safety and reliability, for efficiency and cost savings. They represent a promise: technology that pays off.

The World of Automotive Lubricants



Engine Oils

FUCHS is one of the leading lubricant manufacturers for the initial filling of passenger cars, trucks and agricultural or construction machines. With a comprehensive range of lubricants for all automotive applications and the XTL®-Technology that is unique worldwide, FUCHS truly sets new standards. Upon starting the engine, engine oils with XTL®-Technology reach the places where their protective film is urgently needed quicker and easier, even under extreme conditions. This ensures reliable protection throughout the entire service life of the oil. For the driver, that means easier start processes, less wear and lower fuel consumption – and oil consumption is also significantly lower than in conventional oils of the same viscosity class. A pioneering engine oil technology.

TITAN



Transmission Fluids

To ensure smooth running throughout their entire service life, modern car transmissions need state-of-the-art, high-performance lubricants that protect the gearing from wear and considerably improve the ease with which gears are changed. Moreover, the extension of the replacement intervals right up to a lifetime filling increases the requirements placed on the quality of the oils. As a long-standing development partner of the world's leading gear manufacturers, we keep our finger on the pulse of the times. Stay on the safe side with the ultra-modern **TITAN** and **PENTOSIN** gear oils.

TITAN, **PENTOSIN**



Lubricants for Agricultural Machinery

FUCHS has been active in the agricultural lubricant market for more than 70 years, both as an OEM for machine manufacturers and in the field of workshop services. The latest innovative lubricants under the **AGRIFARM** brand secure maximum operational reliability of all agricultural units – from engines and transmissions, right through to hydraulics in all machines and vehicles. **AGRIFARM** lubricants have proved extremely successful even under the very toughest conditions and thereby offer the highest level of reliability for your vehicle fleet.

AGRIFARM



Motorcycle Lubricants

FUCHS offers more products that are specifically developed for the requirements of motorcycles and two-stroke engines than any other supplier on the market. Our new XP technology for motorized two-wheelers offers significantly reduced fuel and oil consumption, meets the highest API specifications and boosts performance with the Pro 4 and Comp 4 products.

Silkolene



Service Products

The FUCHS **MAINTAIN** range of workshop and service products is a comprehensive portfolio of coolant additives, brake fluids and fuel additives. These offer your vehicle optimum protection at all times – particularly in winter.

Our **MAINTAIN** products are individually matched to virtually every vehicle type and offer the best possible protection combined with the latest technology.

MAINTAIN



Environmentally Friendly Lubricants

The dream of environmentally friendly lubricants is nothing new. Indeed, FUCHS was one of the first companies to enter the market with rapidly biodegradable lubricants back in the 70s. Since then, FUCHS has invested heavily in researching and further developing these lubricants.

The reward for all this hard work: a priceless and unparalleled wealth of expertise and practical experience. Because one thing is certain: a good product alone is not enough. The user also needs competent advice when choosing the right product, switching over to rapidly biodegradable lubricants and for application. It really pays off to have an expert partner by your side.

PLANTO

XTL[®]
TECHNOLOGY

Ground-breaking XTL[®]-Technology.

While starting, engine oils with XTL[®]-Technology reach faster and easier the parts of an engine, which urgently require a protective oil film – even under extreme conditions and over the entire duration of the oil change interval.

This means: Easier start-ups, less wear and lower fuel consumption. Even oil consumption is significantly lower than with conventional SAE 5W-30 oils.



Product Overview

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Engine Oils



Product name	Description	Specifications	Approvals	FUCHS Recommendations
Engine Oils for Passenger Cars				
TITAN GT1 EVO SAE 0W-20 	Premium Performance Engine Oil with new XTL®-Technology in path-breaking viscosity class. Specially designed for highly stressed downsized engines with maximum power output, for extreme fuel-economy characteristics and reduced CO ₂ emissions. Excellent cold starting behaviour, very fast oil circulation and outstanding performance reserves.	–	BMW LONGLIFE-14 FE+	ACEA A1/B1 JAGUAR LAND ROVER STJLR.51.5122
TITAN GT1 PRO V SAE 0W-20 	Premium Performance Engine Oil with new XTL®-Technology in ground-breaking viscosity class. Specially designed for modern VOLVO vehicles, for extreme fuel-economy characteristics and reduced CO ₂ emissions. Excellent cold starting behaviour, very fast oil circulation and outstanding performance reserves.	–	VOLVO VCC RBS0-2AE	ACEA A1/B1
TITAN GT1 LONGLIFE IV SAE 0W-20	Premium Performance Engine Oil in ground-breaking viscosity class. Specially designed for modern VW vehicles, for extreme fuel-economy characteristics and reduced CO ₂ emissions. Excellent cold starting behaviour, very fast oil circulation and outstanding performance reserves.	ACEA C5	VW 508 00/509 00	PORSCHE C20
TITAN GT1 LL-12 FE SAE 0W-30 	Premium Performance Engine Oil with new XTL®-Technology. Specially developed for latest BMW gasoline and diesel vehicles with exhaust after treatment. Excellent cold starting, lower oil consumption and outstanding performance reserves.	ACEA C2	BMW LONGLIFE-12 FE JAGUAR LAND ROVER STJLR.03.5007	–
TITAN GT1 SAE 0W-30	Premium Performance, fuel-economy engine oil for modern passenger cars and light commercial vehicles. Specially developed for latest PSA gasoline and diesel vehicles with exhaust after treatment and turbocharger. Excellent cold starting, lower oil consumption and minimized exhaust emissions.	ACEA C2	PSA B71 2312	FIAT 9.55535-DS1/ GS1 IVECO 18-1811 CLASSE SC1 LV

Performance upgrades in Specifications, Approvals and FUCHS Recommendations are highlighted in bold.

TITAN

Product name	Description	Specifications	Approvals	FUCHS Recommendations
Engine Oils for Passenger Cars				
TITAN GT1 FLEX 23 SAE 5W-30  NEW	Premium Performance, extreme fuel-economy engine oil with optimum cold start ability and outstanding performance reserves. For modern passenger cars and light commercial vehicles with or without extended service intervals. Specially developed for BMW, Mercedes-Benz and Opel vehicles with exhaust after treatment and turbocharger.	ACEA C2/C3 API SN	BMW LONGLIFE-04 dexos2™ (GXXX) MB-APPROVAL 229.31 MB-APPROVAL 229.51 MB-APPROVAL 229.52 VW 505 00/505 01	FIAT 9.55535-S1 / -S3 GM-LL-A-025 GM-LL-B-025 IVECO 18-1811 CLASSE SC1
TITAN GT1 PRO C-3 SAE 5W-30 	Premium Performance, extreme fuel-economy engine oil with new XTL®-Technology for optimum cold start ability and outstanding performance reserves. For modern passenger cars and light commercial vehicles with or without extended service intervals. Specially developed for BMW, VW and Mercedes-Benz vehicles with exhaust after treatment and turbocharger.	ACEA C3 API SN	BMW LONGLIFE-04 MB-APPROVAL 229.51 PORSCHE C30 VW 504 00/507 00	FIAT 9.55535-S3
TITAN GT1 PRO 229.6 SAE 5W-30 	Premium Performance, extreme fuel-economy engine oil with new XTL®-Technology. Specially designed for Mercedes-Gasoline-Vehicles. Optimum cold starting, lower oil consumption and minimized exhaust emissions.	ACEA A5/B5	MB-APPROVAL 229.6	–
TITAN GT1 PRO C-1 SAE 5W-30	Premium Performance, extreme fuel-economy engine oil for modern passenger cars and light commercial vehicles with or without extended service intervals. Specially developed for vehicles with exhaust after treatment and turbocharger. Optimum cold starting, lower oil consumption and minimized exhaust emissions.	–	JAGUAR LAND ROVER STJLR.03.5005	JASO DL-1 FORD WSS-M2C934-B
TITAN GT1 PRO 2290 SAE 5W-30 NEW	Premium Performance, extreme fuel-economy engine oil for modern passenger cars and light commercial vehicles with or without extended service intervals. Specially developed for PSA vehicles with exhaust after treatment and turbocharger. Optimum cold starting, lower oil consumption and minimized exhaust emissions.	ACEA C2	PSA B71 2290	–
TITAN GT1 PRO C-4 SAE 5W-30	Premium Performance, extreme fuel-economy engine oil for modern passenger cars and light commercial vehicles with or without extended service intervals. Specially for Renault engines with exhaust after treatment and turbocharger. Optimum cold starting, lower oil consumption and minimized exhaust emissions.	–	MB-APPROVAL 226.51 RENAULT RN0720	–
TITAN GT1 SAE 5W-40 	Premium Performance, fuel-economy engine oil with new XTL®-Technology for optimum cold start ability and outstanding performance reserves. For modern passenger cars and light commercial vehicles with or without extended service intervals. Specially developed for vehicles with exhaust after treatment and turbocharger.	ACEA C3 API SN/SM FORD WSS- M2C917-A	BMW LONGLIFE-04 dexos2™ (D20311HE075) MB-APPROVAL 226.5 MB-APPROVAL 229.31 PORSCHE A40 RENAULT RN0700/ RN0710 VW 502 00/ 505 00/505 01	API CF FIAT 9.55535-S2 FIAT 9.55535-T2
TITAN Supersyn LONGLIFE PLUS SAE 0W-30	Ultra High Performance, extreme fuel-economy engine oil formulated with fully synthetic base oil for VW engines. Specially developed for VW Longlife Technology. For all passenger car gasoline and diesel engines with or without pump injector technology. Excellent cold starting and lower oil consumption.	–	VW 503 00/506 00/ 506 01	–

Engine Oils

Product name	Description	Specifications	Approvals	FUCHS Recommendations
Engine Oils for Passenger Cars				
TITAN Supersyn LONGLIFE SAE 0W-30	Ultra High Performance, extreme fuel-economy engine oil for a variety of vehicles with or without extended service intervals. Excellent cold starting and lower oil consumption.	ACEA A3/B4 API SL	MB-APPROVAL 229.5 VW 502 00/505 00	BMW LONGLIFE-01
TITAN Supersyn LONGLIFE SAE 0W-40	Ultra High Performance, fuel-economy engine oil for a variety of vehicles with or without extended service intervals. Excellent cold starting and lower oil consumption.	ACEA A3/B4 API SN	BMW LONGLIFE-01 MB-APPROVAL 229.5 PORSCHE A40 VW 502 00/505 00	FORD WSS-M2C937-A
TITAN Supersyn LONGLIFE SAE 5W-40	Ultra High Performance, fuel-economy engine oil for a variety of vehicles with or without extended service intervals. Optimum cold starting and lower oil consumption.	ACEA A3/B4 API SN/SM	BMW LONGLIFE-01 MB-APPROVAL 226.5 MB-APPROVAL 229.5 PORSCHE A40 PSA B71 2296 RENAULT RN0700/ RN0710 VW 502 00/505 00	API CF GM-LL-B-025
TITAN Supersyn FE SAE 0W-30	Ultra High Performance, fuel-economy engine oil for a variety of vehicles with or without extended service intervals. Excellent cold starting properties and low oil consumption.	ACEA A5/B5	VOLVO VCC 95200377	RENAULT RN0700
TITAN Supersyn F Eco-FE SAE 0W-30	Ultra High Performance, extreme fuel-economy engine oil especially developed for modern Ford Diesel engines. Excellent cold starting and lower oil consumption.	ACEA C2 FORD WSS- M2C950-A	–	–
TITAN Supersyn F Eco-B SAE 5W-20	Ultra High Performance, extreme fuel-economy engine oil especially developed for Ford EcoBoost gasoline engines. Optimum cold starting and lower oil consumption.	ACEA C5 API SN FORD WSS- M2C948-B	JAGUAR LAND ROVER STJLR.03.5004	ACEA A1/B1 CHRYSLER MS 6395 FORD WSS-M2C925-A FORD WSS-M2C925-B
TITAN Supersyn F Eco-DT SAE 5W-30	Ultra High Performance, extreme fuel-economy engine oil especially suitable for Ford DuraTorq-Diesel engines. Optimum cold starting and lower oil consumption.	ACEA A5/B5 API SL FORD WSS- M2C913-C FORD WSS- M2C913-D	JAGUAR LAND ROVER STJLR.03.5003	ACEA A1/B1 API CF CHRYSLER MS 6395 FORD WSS-M2C913-A FORD WSS-M2C913-B IVECO 18-1811 CLASSE S1/S2 JAGUAR M2C913-B RENAULT RN0700
TITAN Supersyn D1 SAE 0W-20 NEW	Ultra High Performance, extreme fuel-economy engine oil, specially developed for GM gasoline engines requiring dexos1™ Gen 2 fluid. Optimum cold starting, lower oil consumption and minimised exhaust emissions.	API SN PLUS RC ILSAC GF-5	dexos1™ Gen 2 (D10172GJ075)	CHRYSLER MS 6395 FIAT 9.55535-CR1 FIAT 9.55535-GSX FORD WSS-M2C947-A
TITAN Supersyn D1 SAE 5W-30	Ultra High Performance, extreme fuel-economy engine oil, specially developed for GM gasoline engines requiring dexos1™ Gen 2 fluid. Optimum cold starting, lower oil consumption and minimised exhaust emissions.	API SN PLUS RC ILSAC GF-5	dexos1™ Gen 2 (D10173GJ075)	FORD WSS-M2C929-A FORD WSS-M2C946-A FIAT 9.55535-CR1 CHRYSLER MS 6395 GM 6094M GM 4718M
TITAN Supersyn SAE 5W-30	Ultra High Performance, extreme fuel-economy engine oil for a variety of vehicles with or without extended service intervals. Optimum cold starting and lower oil consumption.	ACEA A3/B4 API SL	MB-APPROVAL 229.3 VW 502 00/505 00	API CF BMW LONGLIFE-98 GM-LL-A-025 GM-LL-B-025 RENAULT RN0700/RN0710
TITAN Supersyn SAE 5W-40	Ultra High Performance, fuel-economy engine oil for a variety of vehicles with or without extended service intervals. Optimum cold starting and lower oil consumption.	ACEA A3/B4 API SN/SM	MB-APPROVAL 229.3 PORSCHE A40 RENAULT RN0700/ RN0710 VW 502 00/505 00	API CF BMW LONGLIFE-98 FIAT 9.55535-H2/M2/N2/Z2 GM-LL-A-025 GM-LL-B-025





Product name	Description	Specifications	Approvals	FUCHS Recommendations
Engine Oils for Passenger Cars				
TITAN Supersyn SAE 5W-50	Ultra High Performance, fuel-economy engine oil for passenger cars. Optimum cold starting behaviour and low oil consumption. Highly durable lubricating film and high oil pressure.	–	–	ACEA A3/B4 API SL/CF
TITAN Supersyn SAE 10W-60	Ultra High Performance, fuel-economy engine oil for passenger cars. Low oil consumption. Highly durable lubricating film and high oil pressure.	–	–	ACEA A3/B3 API SL/CF FIAT 9.55535-H3
TITAN SYN MC SAE 10W-40	Super High Performance, fuel-economy engine oil based on MC-synthesis for a variety of gasoline and diesel engines in passenger cars. Lower oil consumption.	ACEA A3/B4 API SN	MB-APPROVAL 229.1 MB-APPROVAL 229.3 PSA B71 2300 RENAULT RN0700/RN0710 VW 501 01/505 00	API CF FIAT 9.55535-D2/G2
TITAN FORMULA SAE 15W-40	High Performance Engine Oil specially for all normally aspirated and turbocharged gasoline and diesel engines in passenger cars operated under normal conditions.	ACEA A3/B3 API SL	MB-APPROVAL 229.1	API CG-4 FIAT 9.55535-D2/G2 VW 501 01/505 00

Engine Oils

Product name	Description	Specifications	Approvals	FUCHS Recommendations
Engine Oils for Passenger Cars and Commercial Vehicles				
TITAN UNIMAX ULTRA MC SAE 10W-40	Premium Performance Engine Oil based on MC-synthesis for all commercial vehicles, off-highway equipment and passenger cars. Substantial rationalisation opportunities for mixed fleets. Prolongation of drain intervals possible with many manufacturers. Good cold starting and lower oil consumption.	ACEA E7/B4/B3/A3 API CI-4 GLOBAL DHD-1 JASO DH-1	CUMMINS CES 20077/8 DETROIT DIESEL 93K215 DEUTZ DQC III-10 MACK EO-M PLUS MAN M 3275-1 MB-APPROVAL 228.3 MB-APPROVAL 235.27 MTU DDC TYPE 2 RENAULT RLD/RLD-2 VOITH-RETARDER „A“ VOLVO VDS-3	ALLISON C-4 CAT ECF-2 CUMMINS CES 20071/2/6 MB 229.1 VW 500 00/501 01/ 505 00
TITAN UNIMAX PLUS MC SAE 10W-40	Ultra High Performance, fuel-economy engine oil based on MC-synthesis for all commercial vehicles, off-highway equipment and passenger cars. Substantial rationalisation opportunities for mixed fleets. Prolongation of drain intervals possible with some manufacturers. Good cold starting and lower oil consumption.	ACEA E7/B3/A3 API CH-4	DEUTZ DQC II-10 MAN M 3275-1 MB-APPROVAL 228.3 MB-APPROVAL 235.27 MTU DDC TYPE 2 RENAULT RD/RD-2 VOITH-RETARDER „A“ VOLVO VDS-2	ALLISON C-4 CUMMINS CES 20071/2/6/7 MACK EO-M PLUS MB 229.1
TITAN UNIVERSAL HD SAE 15W-40	High Performance Engine Oil for mixed fleets operated under normal conditions. Good performance in normally aspirated and turbocharged diesel engines.	ACEA A3/B3 API SL	DEUTZ DQC I-02 MB-APPROVAL 229.1 MTU DDC TYPE 2	ACEA E2 API CG-4/CF MIL-L-2104 E ALLISON C-4 CASE MS 1120 MACK EO-L MAN 271 NH 330G STEYR A-202 VOLVO VDS VW 501 01/505 00

TITAN

Product name	Description	Specifications	Approvals	FUCHS Recommendations
Engine Oils for Commercial Vehicles				
TITAN CARGO MAXX SAE 5W-30 	Premium MAXX Performance Engine Oil with new XTL®-Technology. Specially developed for vehicles with modern exhaust after treatment and turbocharger. Optimum cold starting properties and ageing stability for extreme fuel-economy over the whole drain-interval.	ACEA E9/E7/E6/E4 API CJ-4 CAT ECF-3 JASO DH-2 SCANIA LA	DEUTZ DQC IV-10 LA DETROIT DIESEL 93K218 MACK EO-O PREMIUM PLUS MAN M 3271-1 MAN M 3477 MAN M 3575 MAN M 3677 MB-APPROVAL 228.31 MB-APPROVAL 228.51 MTU DDC TYPE 2.1 MTU DDC TYPE 3.1 RENAULT RLD-3 SCANIA LDF-4 VOLVO VDS-4	CUMMINS CES 20081 IVECO 18-1804 CLASSE TLS E6
TITAN CARGO MAXX SAE 10W-30 NEW	Premium MAXX Performance Engine Oil. Specially developed for vehicles with modern exhaust after treatment and turbocharger. Optimum cold starting properties and ageing stability for extreme fuel-economy over the whole drain-interval.	ACEA E9/E7/E6 API CK-4/SN CAT ECF-3	DEUTZ DQC IV-10 LA MACK EOS-4.5 MAN M 3477 MAN M 3677 MB-APPROVAL 228.51 MTU DDC TYPE 3.1 RENAULT RLD-3 SCANIA LA VOLVO VDS-4.5	CUMMINS CES 20086 DETROIT DIESEL 93K218 DETROIT DIESEL 93K222 JASO DH-2
TITAN CARGO MAXX SAE 10W-40 	Premium MAXX Performance Engine Oil with new XTL®-Technology. Specially developed for vehicles with modern exhaust after treatment and turbocharger. Good cold starting properties and ageing stability for fuel-economy over the whole drain-interval.	ACEA E9/E7/E6/E4 API CJ-4 JASO DH-2 CAT ECF-3	DEUTZ DQC IV-10 LA MACK EO-O PREMIUM PLUS MAN M 3271-1 MAN M 3477 MAN M 3575 MB-APPROVAL 228.31 MB-APPROVAL 228.51 MTU DDC TYPE 2.1 MTU DDC TYPE 3.1 RENAULT RLD-3 SCANIA LA VOLVO VDS-4	CUMMINS CES 20081 DETROIT DIESEL 93K218 IVECO 18-1804 CLASSE TLS E9 IVECO 18-1809 CLASSE NG2 VOITH-RETARDER „B”

Engine Oils

Product name	Description	Specifications	Approvals	FUCHS Recommendations
Engine Oils for Commercial Vehicles				
TITAN CARGO SL SAE 5W-30	Ultra High Performance, extreme fuel-economy engine oil for a variety of commercial vehicle diesel engines, with optimum cold starting and lower oil consumption. Specially developed for extended service intervals.	ACEA E7/E4 FORD WSS-M2C212-A1	DEUTZ DQC IV-10 MACK EO-N MAN M 3277 MB-APPROVAL 228.5 MB-APPROVAL 235.28 MTU DDC TYPE 3 RENAULT RXD/RLD-2 SCANIA LDF-3 VOITH-RETARDER „B“ VOLVO VDS-3	CUMMINS CES 20077 IVECO 18-1804 CLASSE TFE SCANIA LDF-2
TITAN CARGO LA SAE 5W-30	Ultra High Performance, extreme fuel-economy engine oil, specially developed for commercial vehicles with modern exhaust after treatment systems and turbocharger. Offers good cold starting and lower oil consumption.	ACEA E7/E6 API CI-4 JASO DH-2	DEUTZ DQC III-10 LA MACK EO-N MAN M 3271-1 MAN M 3477 MB-APPROVAL 228.51 MTU DDC TYPE 3.1 RENAULT RLD-2/RXD/RGD VOLVO VDS-3	CUMMINS CES 20076/7/8
TITAN CARGO LA SAE 10W-40	Ultra High Performance, fuel-economy engine oil, specially developed for commercial vehicles with modern exhaust after treatment systems and turbocharger. Offers good cold starting and lower oil consumption.	ACEA E9/E7/E6 API CI-4 JASO DH-2	DEUTZ DQC IV-10 LA MACK EO-N MAN M 3271-1 MAN M 3477 MB-APPROVAL 228.51 MTU DDC TYPE 3.1 RENAULT RLD-2/RXD/RGD VOLVO VDS-3	CUMMINS CES 20076/7
TITAN CARGO 228.61 SAE 5W-30	Ultra High Performance, extreme fuel-economy engine oil. Specially developed for Mercedes Benz commercial vehicles with modern exhaust after treatment systems. Suitable for Euro VI engines. Offers good cold starting and lower oil consumption.	API FA-4	MB-APPROVAL 228.61	CUMMINS CES 20087 DETROIT DIESEL 93K223
TITAN CARGO LD4 SAE 5W-30	Ultra High Performance, fuel-economy engine oil for use in Scania Euro VI vehicles. Specially developed for extended service intervals.	–	SCANIA LDF-4	–
TITAN CARGO LD3 SAE 10W-40	Ultra High Performance, fuel-economy engine oil for use in Scania Euro VI vehicles. Specially developed for extended service intervals.	ACEA E7/E4	MACK EO-N MAN M 3277 MB-APPROVAL 228.5 RENAULT RLD-2 SCANIA LDF-3 VOLVO VDS-3	API CF
TITAN CARGO MC SAE 10W-40	Ultra High Performance, fuel-economy engine oil based on MC-synthesis for a variety of commercial vehicle diesel engines. Specially developed for extended service intervals. Good cold starting and lower oil consumption.	ACEA E7/E4 API CI-4 GLOBAL DHD-1	CUMMINS CES 20077/8 DETROIT DIESEL 93K215 DEUTZ DQC III-10 MACK EO-M PLUS MACK EO-N MAN M 3277 MB-APPROVAL 228.5 MTU DDC TYPE 3 RENAULT RXD/RLD-2 SCANIA LDF-2 VOLVO VDS-3	IVECO 18-1804 SDFG OM-1901A

TITAN

Product name	Description	Specifications	Approvals	FUCHS Recommendations
Engine Oils for Commercial Vehicles				
TITAN CARGO SAE 5W-40 NEW	Ultra High Performance, fuel-economy engine oil, specially developed for commercial vehicle diesel engines with extended service intervals, exhaust after treatment and turbocharger.	ACEA E9 API CK-4/CJ-4/SN CAT ECF-3	CUMMINS CES 20086 DEUTZ DQC III-10 LA FORD M2C171-F1 MACK EOS-4.5 MAN M 3775 MB-APPROVAL 228.31 MTU DDC TYPE 2.1 RENAULT RLD-3 VOLVO VDS-4.5	DETROIT DIESEL 93K222 MAN M 3575
TITAN CARGO SAE 10W-30 NEW	Ultra High Performance, fuel-economy engine oil, specially developed for commercial vehicle diesel engines with extended service intervals, exhaust after treatment and turbocharger.	ACEA E9 API CK-4/CJ-4 CAT ECF-3 JASO DH-2	CUMMINS CES 20086 DEUTZ DQC III-10 LA FORD M2C171-F1 MACK EOS-4.5 MAN M 3775 MB-APPROVAL 228.31 MTU DDC TYPE 2.1 RENAULT RLD-3 VOLVO VDS-4.5	DETROIT DIESEL 93K222 MAN M 3575
TITAN CARGO SAE 15W-40 NEW	Ultra High Performance, fuel-economy engine oil for a variety of commercial vehicle diesel engines. Specially developed for Volvo with extended service intervals, exhaust after treatment and turbocharger.	ACEA E9 API CK-4/CJ-4/SN CAT ECF-3 JASO DH-2	CUMMINS CES 20086 DEUTZ DQC III-10 LA FORD M2C171-F1 MACK EOS-4.5 MAN M 3775 MB-APPROVAL 228.31 MTU DDC TYPE 2.1 RENAULT RLD-3 VOLVO VDS-4.5	DETROIT DIESEL 93K222 MAN M 3575
TITAN TRUCK PLUS SAE 15W-40	Super High Performance Engine Oil for a variety of diesel and gasoline engines. Specially for highly-loaded commercial vehicle diesel engines. Lower oil consumption.	ACEA E7 API CI-4/SL GLOBAL DHD-1 CAT ECF-1-a/ECF-2	CUMMINS CES 20076/7/8 DETROIT DIESEL 93K215 DEUTZ DQC III-10 MACK EO-N MAN M 3275-1 MB-APPROVAL 228.3 MTU DDC TYPE 2 RENAULT RLD/RLD-2 VOLVO VDS-3	ALLISON C-4 CAT TO-2 CASE MS 1121 CUMMINS CES 20071/2 IVECO 18-1804 CLASSE T2 E7 NH 330H
TITAN TRUCK PLUS SAE 20W-50	Super High Performance Engine Oil for a variety of diesel and gasoline engines. Specially for highly-loaded commercial vehicle diesel engines. Lower oil consumption.	ACEA E7 API CI-4/SL GLOBAL DHD-1 CAT ECF-1-a/ECF-2	MB-APPROVAL 228.3	MAN M 3275-1
Engine Oil for Commercial Vehicles with Gas Engines				
TITAN CARGO PRO GAS SAE 10W-40	Premium Performance, extreme fuel-economy engine oil for highly-supercharged commercial vehicle gas engines as well as diesel engines with exhaust gas after treatment systems. Specially developed for gas powered engines with and without turbocharger. Optimum cold starting, lower oil consumption and minimized exhaust emissions. For MAN gas engines extended drain intervals are possible depending on engine type.	ACEA E9/E7/E6	DEUTZ DQC IV-10 LA MACK EO-N MAN M 3271-3 MAN M 3477 MB-APPROVAL 228.51 RENAULT RLD-2 VOLVO VDS-3	–

Engine Oils

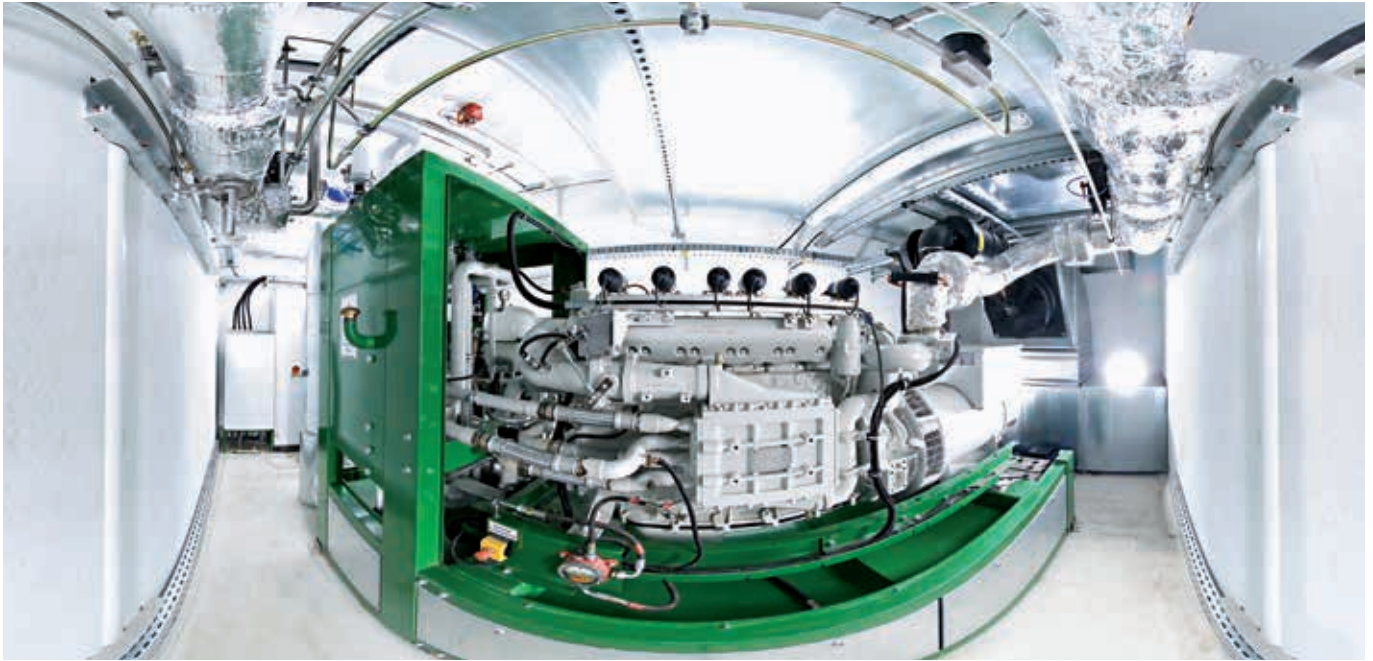


Product name	Description	Specifications	Approvals	FUCHS Recommendations
Railroad Engine Oil				
TITAN RAILGEN 13 SAE 40	High Performance Rail Locomotive Monograde Engine Oil according to API CF utilizing zinc and chlorine free additive technology.	–	GE Generation 4LL GM - EMD GENERATION 5	API CD/CF LMOA GENERATION 5 CATERPILLAR 3600
Monograde Engine Oils for Construction Machinery				
TITAN UNIVERSAL HD SAE 10W	High Performance Monograde Engine Oil for gasoline and diesel engines. Specially developed for off-road vehicles. Depending upon manufacturer regulation also in other aggregates applicable.	–	MAN 270 ZF TE-ML 03B (ZF002013)	ACEA E2 API CF-4/SG MIL-L-2104 D ALLISON C-4 CAT TO-2 MB 228.0 ZF TE-ML 02C
TITAN UNIVERSAL HD SAE 20W-20	High Performance Monograde Engine Oil for gasoline and diesel engines. Specially developed for off-road vehicles. Depending upon manufacturer regulation also in other aggregates applicable.	–	MB-APPROVAL 235.27 VOITH-RETARDER „A“	ACEA E2 API CF-4/SG MIL-L-2104 D ALLISON C-4 CAT TO-2 MAN 270 MB 228.0 ZF TE-ML 02C
TITAN UNIVERSAL HD SAE 30	High Performance Monograde Engine Oil for gasoline and diesel engines. Specially developed for off-road vehicles. Depending upon manufacturer regulation also in other aggregates applicable.	–	DEUTZ DQC I-02 MTU DDC TYPE 2 ZF TE-ML 04B (ZF001189)	ACEA E2 API CF-4/SG MIL-L-2104 D ALLISON C-4 CAT TO-2 MAN 270 MB 228.2 ZF TE-ML 02C



Product name	Description	Specifications	Approvals	FUCHS Recommendations
Monograde Engine Oils for Construction Machinery				
TITAN UNIVERSAL HD SAE 40	High Performance Monograde Engine Oil for gasoline and diesel engines. Specially developed for off-road vehicles. Depending upon manufacturer regulation also in other aggregates applicable.	–	DEUTZ DQC I-02 MB-APPROVAL 235.12 MTU DDC TYPE 2 ZF TE-ML 04B (ZF001190)	ACEA E2 API CF-2/CF-4/SG MIL-L-2104 D ALLISON C-4 CAT TO-2 MAN 270 MB 228.2 ZF TE-ML 02C
TITAN UNIVERSAL HD SAE 50	High Performance Monograde Engine Oil for gasoline and diesel engines. Specially developed for off-road vehicles. Depending upon manufacturer regulation also in other aggregates applicable.	–	DEUTZ DQC I-02 MAN M 3275-2	ACEA E2 API CF-4/SG MIL-L-2104 D ALLISON C-4 CAT TO-2 MB 228.0 ZF TE-ML 02C
TITAN UNIVERSAL HD SAE 30 MTU	High Performance dedicated break in engine oil for MTU diesel and gas engines, developed to improve operating characteristics with enhanced corrosion protection.	–	MTU DDC TYPE 1	–

Engine Oils



Product name	Description	Specifications	Approvals	FUCHS Recommendations
Gas Engine Oils for Stationary Gas Engines				
TITAN GANYMET ULTRA	Premium Performance Engine Oil, zinc-free, for stationary gas engines.	–	2G TA-003 agenitor series 2,3 AGROGEN CAT CG132, CG170, CG260 CAT / MWM TR 0199-99-02105 GE JENBACHER TA 1000-1109 - A, CAT: series 2, 3, 4 (Version B), 6 (Version C, E) - B, CAT: series 2, 3 MAN M 3271-4 MTU Onsite Energy DK-BS-0001 (E, P, B) MTU Onsite Energy DK-BS-0002 (B) SEVA TRS-07 SPANNER RE2 TEDOM 61-0-0281.1/L, B, S	–
TITAN GANYMET PLUS	Super High Performance Engine Oil, zinc-free, for stationary gas engines.	–	CAT CG132, CG170, CG260 CAT / MWM TR 0199-99-02105 DREYER & BOSSE GE JENBACHER TA 1000-1109 - B: series 2, 3 MTU Onsite Energy DK-BS-0001 (B) SEVA TRS-07	–
TITAN GANYMET PLUS LA	„Low Ash“ Super High Performance Engine Oil, zinc-free, for stationary gas engines.	–	CAT CG132, CG170, CG260 CAT / MWM TR 0199-99-02105 DEUTZ TR 0199-99-01213 SEVA TRS-07 TEDOM 61-0-0281.1/G, P	CATERPILLAR CUMMINS WAUKESHA
TITAN GANYMET PRO MA	High Performance Engine Oil for stationary gas engines.	–	GE JENBACHER TA 1000-1109 - B, C: series 2, 3, 4 (Version B), 6 (Version C, E) MAN M 3271-4	CATERPILLAR (special gas)
TITAN GANYMET PRO LA	High Performance Engine Oil with low sulphated ash content for stationary gas engines.	–	CAT CG132, CG170, CG260 CAT / MWM TR 0199-99-02105 GE JENBACHER TA 1000-1109 - A, B: series 2, 3, 4 (Version B), 6 (Version C, E)	CATERPILLAR CUMMINS WAUKESHA WÄRTSILÄ



Product name	Description	Specifications	Approvals	FUCHS Recommendations
Gas Engine Oils for Stationary Gas Engines				
TITAN GANYMET	High Performance Engine Oil for stationary gas engines.	–	ASJA AMBIENTE ITALIA GE JENBACHER TA 1000-1109 - C: series 2, 3 MAN M 3271-4 MTU Onsite Energy DK-BS-0001 (B,K) SEVA TRS-07	–
TITAN GANYMET LA	High Performance Engine Oil with low sulphated ash content for stationary gas engines.	–	CAT CG132, CG170, CG260 CAT / MWM TR 0199-99-02105 DEUTZ TR 0199-99-01213 GE JENBACHER TA 1000-1109 - A, CAT: series 2, 3, 4 (Version B), 6 (Version C, E) MAN M 3271-2 MTU Onsite Energy DK-BS-0001 (E, P, K) SEVA TRS-07	CATERPILLAR CUMMINS WAUKESHA

Engine Oils

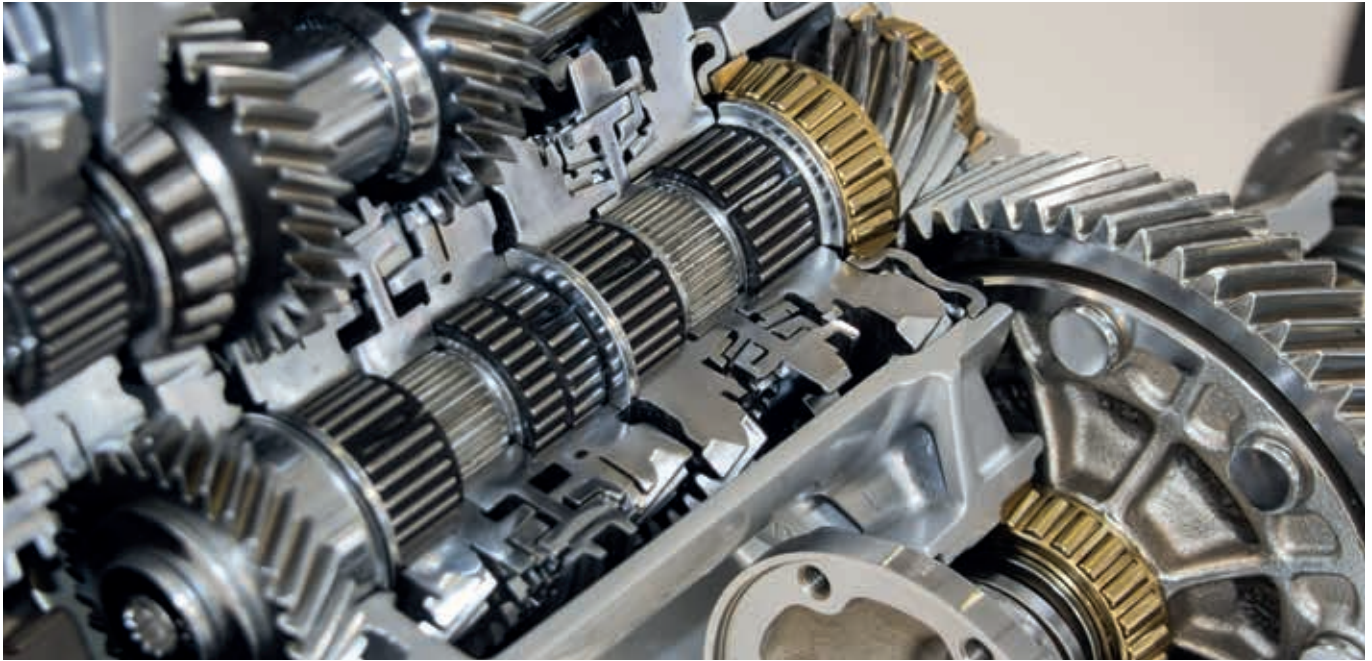



Product name	Description	Specifications	Approvals	FUCHS Recommendations
4-Stroke Marine Engine Oil				
TITAN MARINE FC-W SAE 10W-30	Super High Performance Engine Oil for marine leisure four-stroke gasoline engines, in accordance with the latest requirements of NMMA.	–	NMMA FC-W	BOMBARDIER EVINRUDE HONDA JOHNSON MERCURY SEADOO SUZUKI YAMAHA

TITAN

Product name	Description	Specifications	Approvals	FUCHS Recommendations
2-Stroke Engine Oils				
TITAN 2T 100S	Ultra High Performance two-stroke engine oil for Autolube and Premix systems formulated with fully synthetic base oils. Product dyeing: blue.	API TC JASO FD ISO L-EGD	–	TISI
TITAN 2T S	Super High Performance two-stroke engine oil. Mixes rapidly. Suitable for Autolube as well as Premix systems. Product dyeing: blue.	API TC JASO FC ISO L-EGC	–	–
TITAN 2T M	High Performance two-stroke engine oil. Mixes rapidly. Suitable for Autolube as well as Premix systems. Product dyeing: blue.	API TC	–	–

Transmission Fluids



Product name	Description	Specifications	Approvals	FUCHS Recommendations
Gear Oils for Passenger Cars				
TITAN SINTOFLUID FE SAE 75W	Premium Performance Manual Transmission Fluid offering increased gear box efficiency in passenger cars due to low viscosity level. Reduces fuel consumption and offers best properties at low temperature. Suitable as fill for life fluid according to manufacturer.	API GL-4	–	VW TL 521 71 (G 052 171 A1/A2) VW TL 521 78 (G 052 178 A2) VW TL 525 12 (G 052 512 A2) VW TL 525 27 (G 052 527 A2) VW TL 726 (G 052 726 A2/G 055 726 A2/ G 060 726 A2/G 070 726 A2)
TITAN SINTOFLUID SAE 75W-80	Premium Performance Manual Transmission Fluid for passenger cars. Offering good gear box efficiency. Suitable as fill for life fluid according to manufacturer.	API GL-5	–	MIL-L-2105 D BMW 83 22 0 309 031 BMW 83 22 0 403 247 BMW 83 22 2 339 219 BMW 83 22 7 533 818 BMW 2300 1434 404 BMW 2300 7533 513 BMW 2300 7533 818 FORD WSS-M2C200-C3 OPEL 19 40 182 OPEL 19 40 757 OPEL 19 40 768 OPEL 19 40 776 VOLVO 97308 VW 501 50 (G 005 000 05/G 005 000/ G 005 000 20/G 052 911 A1/A2)
TITAN SINTOPOID FE SAE 75W-85 	Premium Performance fuel-economy passenger car axle fluid offering increased gear box efficiency in passenger cars due to low viscosity level. Reduces fuel consumption and offers best properties at low temperature. Suitable as fill for life fluid according to manufacturer.	API GL-5	MB-APPROVAL 235.7 MB-APPROVAL 235.74 ZF TE-ML 18 (ZF002195)	MB 239.71 MB 239.72 VW TL 521 45-X (G 052 145 A1) VW TL 521 90 (G 052 190 A2/ G 055 190 A2)



Product name	Description	Specifications	Approvals	FUCHS Recommendations
Gear Oils for Passenger Cars				
TITAN SINTOPOID SAE 75W-90	Premium Performance Axle Gear Oil for passenger cars, also for high-offset hypoid drives offering good gear box efficiency. Suitable as fill for life fluid according to manufacturer.	API GL-5	–	MIL-L-2105 D VW TL 521 45-Y (G 052 145 A2)
TITAN SINTOPOID LS SAE 75W-90	Premium Performance, fully-synthetic multifunctional gear oil, formulated with fully-synthetic base oils. Suitable for axles and transfer gear-boxes with or without self-locking differentials and also as trouble shooter for conventional manual transmissions.	API GL-4/-5/-5 incl. LS	–	FORD WSS-M2C200-C/C2 VW G50/G51
TITAN SINTOPOID LS SAE 75W-140	Premium Performance Gear Oil for axle and transfer gear boxes, formulated with fully-synthetic base oils. Suitable for axle and transfer gear boxes with and without limited slip differential.	API GL-5	–	BMW 83 22 2 282 583 BMW 83 22 9 407 870 CHRYSLER MS-8985 FORD WSL-M2C192-A GM 12346140 JOHN DEERE JDM J11G SCANIA STO 1:0
Gear Oils for Passenger Cars and Commercial Vehicles				
TITAN SUPERGEAR MC SAE 80W-90	Super High Performance Gear Oil based on MC-Synthesis for extended oil change intervals.	API GL-4/GL-5 SCANIA STO 1:0	MAN 341 TYPE Z2 MAN 342 TYPE M2 MB-APPROVAL 235.0 ZF TE-ML 02B, 05A, 12L, 12M, 16B, 17H, 19B, 21A (ZF000722)	CASE MS 1316 FORD WSP-M2C197-A JOHN DEERE JDM J11E MAN M 3343 TYPE M MAN 341 TYPE E2 NH 520A SDFG OP 1705 STEYR B-101 VOLVO 97310 ZF TE-ML 07, 08
TITAN SUPERGEAR MC SAE 80W-140	Super High Performance Gear Oil based on MC-Synthesis for extended oil change intervals.	API GL-4/GL-5 SCANIA STO 1:0	–	JOHN DEERE JDM J11E OPEL 19 42 386 RENAULT VI VOLVO 97310 ZF TE-ML 08
TITAN SUPERGEAR SAE 80W-90	High Performance Gear Oil for extended oil change intervals.	API GL-4/GL-5	MAN 342 TYPE M2 ZF TE-ML 05A, 12E, 17B, 19B, 21A (ZF000647)	MIL-L-2105 D VOLVO 97310 NH 520A STEYR B-101
TITAN SUPERGEAR SAE 85W-140	High Performance Gear Oil for extended oil change intervals.	API GL-4/GL-5	ZF TE-ML 05A, 12E, 16D, 21A (ZF000650)	MIL-L-2105 D VOLVO 97310
TITAN GEAR LS SAE 90	High Performance LS (Limited Slip) hypoid gear oil for axles with or without limited slip differentials.	API GL-5 SAE J306: 85W-90	ZF TE-ML 05C, 12C, 16E, 21C (ZF000651)	MIL-L-2105 D FORD M2C104-A JOHN DEERE JDM J11F NH 520B VOLVO 97310
TITAN GEAR MP SAE 80	High Performance Gear Oil for synchronized and non-synchronized manual gear boxes as well as auxiliary drives, axles and differentials in commercial vehicles and passenger cars.	API GL-4	MB-APPROVAL 235.1 ZF TE-ML 17A (ZF000654)	BMW 81 22 9 407 052 BMW 81 22 9 407 053 FORD M2C9008-A VW TL 726 ZF TE-ML 08
TITAN GEAR MP SAE 90	High Performance Gear Oil for synchronized and non-synchronized manual gear boxes as well as auxiliary drives, axles and differentials in commercial vehicles and passenger cars.	API GL-4	–	MAN 341 TYPE E1, Z1 MB 235.1 ZF TE-ML 02A, 16A, 17A, 19A

Transmission Fluids

Product name	Description	Specifications	Approvals	FUCHS Recommendations
Gear Oils for Passenger Cars and Commercial Vehicles				
TITAN GEAR HYP SAE 90	High Performance Gear Oil for highly-stressed differentials in commercial vehicles and passenger cars.	API GL-5 SAE J306: 85W-90	MB-APPROVAL 235.0 ZF TE-ML 16C, 17B, 19B, 21A (ZF000656)	FORD SR-M2C9102-A JOHN DEERE JDM J11E MAN 342 TYPE M1 OPEL 19 42 387 VOLVO 97310 VW TL 727 ZF TE-ML 07, 08
Gear Oils for Commercial Vehicles				
TITAN CYTRAC TD SAE 75W-90	Premium Performance Gear Oil for highly-stressed manual transmissions and hypoid axles in commercial vehicles formulated with fully-synthetic base oils. Developed for the longest oil change intervals.	API GL-4/GL-5 API MT-1 SAE J2360 SCANIA STO 1:0 SCANIA STO 2:0A FS	DETROIT DIESEL 93K219.01 MAN 341 TYPE Z2 MAN 342 TYPE M3 MAN 342 TYPE S1 MB-APPROVAL 235.8 VOLVO 97312 ZF TE-ML 02B, 05A, 12L, 12N, 16F, 17B, 19C, 21A (ZF003341)	JOHN DEERE JDM J11E JOHN DEERE JDM J11G MAN 341 TYPE E3
TITAN CYTRAC SL SAE 75W-90	Premium Performance Gear Oil for highly-stressed hypoid axles in commercial vehicles formulated with fully-synthetic base oils. Developed for the longest oil change intervals in commercial vehicle axle drives.	API GL-5 SCANIA STO 1:0	MAN 342 TYPE S1	JOHN DEERE JDM J11E JOHN DEERE JDM J11G MB 235.8 VOLVO 97312 ZF TE-ML 05B, 07, 08, 12B, 16F, 17B
TITAN CYTRAC RR SAE 75W-90	Fully synthetic Premium Performance Hypoid Gear Oil for axle drives in railcars and heavy duty vehicles.	API GL-5 API MT-1 SCANIA STO 1:0	SAE J2360 SIEMENS FLENDER Gear Units for Railway Vehicles VOITH TURBO 132.00374401 (3.325-340) VOITH TURBO 132.00374402 (3.325-342) ZF TE-ML 05A, 12L, 12N, 16F, 17B, 19C, 21A (ZF000732)	Gmeinder Getriebebau railway applications ZF TE-ML 05B, 21B
TITAN CYTRAC FE SYNTH SAE 75W-85	Premium Performance Gear Oil for gear boxes in commercial vehicles, specially for the latest version of Mercedes-Benz CO ₂ transmissions, formulated with fully-synthetic base oils. Most fuel efficient by improving gear box efficiency. Suitable for the longest oil change intervals.	API GL-4	MB-APPROVAL 235.16	–
TITAN CYTRAC MB SYNTH SAE 75W-90	Premium Performance Gear Oil for gear boxes in commercial vehicles, specially developed for Mercedes-Benz Actros vehicles, formulated with fully-synthetic base oils. Reduces fuel consumption by improving gear box efficiency. Suitable for the longest oil change intervals.	API GL-4	MAN 341 TYPE MB MB-APPROVAL 235.11	ZF TE-ML 08
TITAN CYTRAC ULTRA SYNTH SAE 75W-80	Premium Performance Gear Oil for gear boxes in commercial vehicles, especially developed for ZF heavy duty transmissions with and without Intarder. Reduces fuel consumption by improving gear box efficiency. Suitable for longest oil change intervals.	API GL-4 VOLVO 97307	MAN 341 TYPE Z5 ZF TE-ML 01E, 02E, 16P (ZF001457)	–



Product name	Description	Specifications	Approvals	FUCHS Recommendations
Gear Oils for Commercial Vehicles				
TITAN CYTRAC MAT SAE 75W-80	Premium Performance Gear Oil for gear boxes in commercial vehicles, specially developed for manual and automatic ZF-gear boxes, formulated with selected base oils. Reduces fuel consumption by improving gear box efficiency. Suitable for the longest oil change intervals and compatible with Carbon-Synchronizers.	API GL-4	MAN 341 TYPE Z4 VOLVO 97307 ZF TE-ML 01L, 02L, 16K (ZF003373)	–
TITAN CYTRAC LD SAE 75W-80	Ultra High Performance Gear Oil for extended oil change intervals in commercial vehicles fitted with integral retarders or supplementary retarders.	API GL-4	EATON	MAN 341 TYPE E3 MAN 341 TYPE Z3 VOLVO 97305 ZF TE-ML 02D, 08
TITAN CYTRAC HSY SAE 75W-90	Ultra High Performance Gear Oil for commercial vehicle manual transmissions and axle drives formulated with fully-synthetic base oils.	API GL-4/GL-5	ZF TE-ML 05A, 12L, 12N, 16F, 17B, 19C, 21A (ZF000642)	MAN 341 TYPE E3 MAN 341 TYPE Z2 MAN 342 TYPE M3 MAN M 3343 TYPE S JOHN DEERE JDM J11E JOHN DEERE JDM J11G SCANIA STO 1:0 ZF TE-ML 05B, 07, 21B
TITAN GEAR HYP LD SAE 80W-90	Super High Performance Gear Oil specially developed for Mercedes-Benz commercial vehicles. Offering enhanced thermal stability and fuel-economy potential.	API GL-5 API MT-1 SAE J2360 SCANIA STO 1:0	DETROIT DIESEL 93K219.02 MAN 341 TYPE GA1 MAN 342 TYPE M3 MB-APPROVAL 235.20 ZF TE-ML 05A, 12L, 12M, 16B, 17B, 19B, 21A (ZF000645)	MIL-PRF-2105 E ARVIN MERITOR 0-76-D MACK GO-J JOHN DEERE JDM J11E ZF TE-ML 07A

Transmission Fluids

Product name	Description	Specifications	Approvals	FUCHS Recommendations
Multifunctional Gear Oils for Construction Machinery				
TITAN UTTO PRO	Ultra High Performance Multifunctional Oil for gears, axles and hydraulic systems with improved wear protection and wide range of application temperatures.	API GL-4 SAE J 306: 75W-80	VOLVO WB 101	ALLISON C-4 CASE MS 1207/1209/1210 FORD M2C86-C FORD ESN-M2C134-D JOHN DEERE JDM J20C JOHN DEERE JDM J20D KOMATSU AXO 80 (KES 07.866) KUBOTA UDT FLUID MASSEY FERGUSON CMS M 1143, 1135 VOLVO WB 102 ZF TE-ML 03E, 03F, 05F, 06K
TITAN UTTO PLUS	Ultra High Performance Multifunctional Oil for gears, axles and hydraulic systems on construction and agricultural machinery with or without wet brakes and limited slip differentials.	SAE J300: 5W-30	–	SAE J306: 75W-80 CASE MS 1207/1209/1210 FORD M2C86-C, ESN-M2C134-D JOHN DEERE JDM J20C JOHN DEERE JDM J20D JOHN DEERE JDM J14 KOMATSU KES 07.866 KUBOTA UDT FLUID MASSEY FERGUSON CMS M 1143, 1135 STEYR 397.88.0001 VOLVO WB 101
TITAN UTTO ZF	Super High Performance Gear Oil for ZF axles with limited slip differentials. Recommended for construction machinery and material-handling vehicles axles.	–	ZF TE-ML 05F, 06K, 17E, 21F (ZF000661)	VOLVO WB 101 ZF TE-ML 03E
TITAN UTTO TO-4 SAE 10W	Super High Performance multifunctional lubricant for hydraulics in construction machinery.	API GL-4 CAT TO-4	ZF TE-ML 03C (ZF002186)	ALLISON C-4 KOMATSU KES 07.868.1
TITAN UTTO TO-4 SAE 30	Super High Performance multifunctional transmission lubricant for construction machinery.	API GL-4 CAT TO-4	ZF TE-ML 03C, 07F (ZF002185)	ALLISON C-4 ALLISON TES-439 KOMATSU KES 07.868.1
TITAN UTTO TO-4 SAE 50	Super High Performance multifunctional lubricant for final drives in construction machinery.	API GL-4 CAT TO-4	–	KOMATSU KES 07.868.1

TITAN, PENTOSIN

Product name	Description	Specifications	Approvals	FUCHS Recommendations
Double Clutch Transmission Fluids (DCTF)				
PENTOSIN FFL-52529 XTL TECHNOLOGY	Premium Performance DCTF with XTL®-Technology for ultimate friction stability and best fuel-economy properties. Specially developed for the wet clutch of the DL382 (0CK) transmission of VW group.	–	VW TL 52 529-C (G 055 529)	–
PENTOSIN FFL-2	Premium Performance DCTF. Specially developed for VW Double Clutch Transmission with wet clutch.	–	JAC DTF630 VW TL 52 182 (G 052 182)	–
PENTOSIN FFL-3	Premium Performance DCTF. Specially developed for ZF/Porsche Double Clutch Transmission with wet clutch.	–	MB-APPROVAL 236.24 ZF TE-ML 11 (ZF001747)	BMW 83 22 2 167 666 (MTF-LT-5) JAGUAR LAND ROVER GX73- M1R564-AA PORSCHE 999 917 080 00
PENTOSIN FFL-4	Premium Performance DCTF. Specially developed for GETRAG/BMW Double Clutch Transmission with wet clutch.	–	GETRAG (PWA05043)	BMW 83 22 0 440 214 BMW 83 22 2 147 477 BMW 83 22 2 148 578 BMW 83 22 2 148 579 BMW 83 22 2 446 673 McLaren: MP4-12C
PENTOSIN FFL-6	Premium Performance DCTF. Specially developed for BYD Double Clutch Transmission with wet clutch.	–	BYD 6DT35 (Q/BYD-A1909.0058- 2013)	–
PENTOSIN FFL-8	Premium Performance DCTF. Specially developed for ZF / Porsche Double Clutch Transmission with wet clutch. Provides optimized friction properties and best load carrying capacity even under hard conditions over the whole lifetime.	–	ZF TE-ML 11 (ZF002271)	PORSCHE 000 043 210 44 PORSCHE 971 094 307 02A

Transmission Fluids

Product name	Description	Specifications	Approvals	FUCHS Recommendations
Double Clutch Transmission Fluids (DCTF)				
PENTOSIN FFL-10	Premium Performance DCTF. Specially developed for Mercedes-Benz-8-speed Double Clutch Transmissions with wet clutch. Provides optimum wear protection and excellent friction properties over the whole lifetime and offers best shifting performance even under hard conditions.	–	MB-APPROVAL 236.22	–
PENTOSIN FFL-RACING	Premium Performance DCTF. Specially developed for highly stressed double clutch transmissions.	–	–	NISSAN GT-R (R35)
Automatic Transmission Fluids (ATF)				
TITAN ATF 7134 FE	Premium Performance ATF with reduced viscosity, especially developed to further optimize fuel-economy and gear box efficiency of latest generation Mercedes-Benz 7-speed automatic transmissions. Not downwards compatible with previous MB-ATF-Specifications. Product dyeing: blue.	–	MB-APPROVAL 236.15	–
TITAN ATF 6009 NEW	Premium Performance ATF, specially developed to optimize the shifting performance of latest generation ZF automatic transmissions. Product dyeing: green.	–	–	BMW 83 22 2 289 720 (ATF 3+) HONDA ATF TYPE 3.1 ZF AA01.500.001
TITAN ATF 6008 NEW	Premium Performance ATF, specially developed to optimize the shifting performance of ZF automatic transmissions. Product dyeing: green.	–	–	BMW 83 22 2 289 720 (ATF 3+) CHRYSLER 68157995AA JAGUAR 02JDE 26444 LAND ROVER LR023288 VW G 055 162 VW G 060 162 ZF S671 090 312
TITAN ATF 6006 NEW	Ultra High Performance ATF, specially developed to optimize the shifting performance of ZF automatic transmissions. Product dyeing: none.	–	–	BENTLEY PY112995PA BMW 83 22 0 142 516 HYUNDAI 040000C90SG JAGUAR FLUID 8432 LAND ROVER TYK500050 MASERATI 231603 VW G 055 005 ZF S671 090 255
TITAN ATF 6000 SL	Premium Performance ATF offering maximum performance in passenger car applications such as automatic transmissions with torque converters or wet clutches as well as power steering systems. Formulation is licensed according to DEXRON VI and downwards compatible to any former DEXRON-specification. Product dyeing: red.	–	DEXRON VI VOITH H55.6335.xx ZF TE-ML 09	BMW 81 22 9 400 272 BMW 81 22 9 400 275 BMW 81 22 9 407 738 BMW 83 22 0 397 114 BMW 83 22 0 403 248 BMW 83 22 0 403 249 BMW 83 22 0 432 807 BMW 83 22 9 407 858 BMW 83 22 9 407 859
TITAN ATF 5500	Premium Performance ATF for automatic transmission in motor vehicles. Outstanding base oil quality for optimal cold temperature properties and high ageing stability. Durable friction properties for excellent wet clutch performance. Product dyeing: none.	–	MAN 339 TYPE V1 MAN 339 TYPE V2 MAN 339 TYPE Z3 MAN 339 TYPE Z12 MB-APPROVAL 236.9 VOITH 150.014524.xx VOLVO 97341 ZF TE-ML 04D, 14C, 16M, 16S, 20C, 25C (ZF001797)	DEXRON III (H) ALLISON TES 295 ALLISON TES 389 MAN 339 TYPE Z4

TITAN, PENTOSIN

Product name	Description	Specifications	Approvals	FUCHS Recommendations
Automatic Transmission Fluids (ATF)				
TITAN ATF 5005	Premium Performance ATF for automatic transmission in motor vehicles. Outstanding base oil quality for optimal cold temperature properties and high ageing stability. Durable friction properties for excellent wet clutch performance. Product dyeing: red.	–	MAN 339 TYPE L1 MAN 339 TYPE V2 MAN 339 TYPE Z2 MB-APPROVAL 236.6 VOITH H55.6336.xx ZF TE-ML 04D, 14B, 16L, 17C (ZF000717)	DEXRON III (H) ALLISON TES 295 ALLISON TES 389 BMW 81 22 9 400 272 BMW 81 22 9 400 275 BMW 83 22 0 403 248 BMW 83 22 9 407 738 BMW 83 22 9 407 807 BMW 83 22 9 407 858 BMW 83 22 9 407 859 FORD MERCON V MAN 339 TYPE Z3 OPEL 19 40 707 VOLVO 97341 VW TL 521 62 (G 052 162) ZF TE-ML 02F, 11B, 14C
TITAN ATF 1	Ultra High Performance ATF especially developed for highly stressed step automatic transmissions in passenger cars as well as in commercial vehicles. Product dyeing: none.	–	VOITH 150.014524.xx ZF TE-ML 04D, 11B, 14B, 16L, 17C (ZF000734)	BMW 83 22 9 407 807 CHRYSLER MS 9602 (ATF +4) CITROËN/PEUGEOT Z 000 169756 DEXRON III JAGUAR JLM 20238 MB 236.11 PORSCHE 999.917.547.00 VW TL 521 62 (G 052 162)
TITAN ATF 4400	Ultra High Performance ATF specifically formulated for Japanese passenger cars and light commercial vehicles, as well as for several European and American manufacturers. The high torque capacity exceeds the performance of many original fluids. Product dyeing: red.	JASO M315 TYPE 1A	–	DEXRON III AISIN WARNER/AW-1 BMW MINI 83 22 0 402 413 BMW MINI 83 22 7 542 290 DAIHATSU ALUMIX ATF MULTI FIAT 9.55550-AV1/AV2/AV4 FORD MERCON FORD M2C924-A/M2C922-A1 GM 9986195 HONDA ATF Z-1 HYUNDAI SP III, SP IV ISUZU BESCO ATF -II/ATF -III JATCO 3100 PL085/FWD (N402)/JF506E (K17) JWS 3309/TYP T-IV KIA SP-IV MAZDA ATF D-III/ATF M-3 MITSUBISHI SP-II-III NISSAN MATIC C/D/J/S SAAB 3309 SUBARU ATF OIL/ATF OIL SPECIAL/ATF HP SUZUKI ATF 3309/3317 TOYOTA TYPE D-2/T-T-II/T-III/T-IV/WVS VW G 052 990/055 025
TITAN ATF 4134	Ultra High Performance ATF, specially developed to optimise shifting performance of Mercedes automatic transmissions. Product dyeing: red.	–	MB-APPROVAL 236.14 SSANG YONG (MB-automatic transmissions)	–

Transmission Fluids



Product name	Description	Specifications	Approvals	FUCHS Recommendations
Automatic Transmission Fluids (ATF)				
TITAN ATF 4000	Ultra High Performance ATF for use in automatic transmissions as well as other ATF applications. Licensed according to DEXRON III (H). Improved low-temperature shifting compared to DEXRON II. Product dyeing: red.	–	ALLISON C-4 ALLISON TES 389 DEXRON III (H) MAN 339 TYPE L1 MAN 339 TYPE V1 MAN 339 TYPE Z1 MB-APPROVAL 236.1 MB-APPROVAL 236.9 VOITH H55.6335.xx VOLVO 97341 ZF TE-ML 04D, 14A (ZF000728)	BMW 81 22 9 400 272 BMW 81 22 9 400 275 BMW 81 22 9 407 738 BMW 83 22 0 403 248 BMW 83 22 9 407 765 BMW 83 22 9 407 807 BMW 83 22 9 407 858 BMW 83 22 9 407 859 CAT TO-2 FORD MERCON OPEL 19 40 707; OPEL 19 40 767 VW TL 521 62 (G 052 162) ZF TE-ML 02F, 03D, 09, 11B, 17C
TITAN ATF CVT	Ultra High Performance ATF specially designed for use in many CVT-gearboxes using push-belts or transmission chains made of steel. Product dyeing: none.	–	MB-APPROVAL 236.20 FORD WSS-M2C928-A	BMW 83 22 0 136 376 BMW 83 22 0 429 154 CHRYSLER CVTF+4 DAIHATSU AMMIX CVTF-DC/DFE DODGE/JEEP NS-2/CVTF+4 FORD WSS-M2C933-A/MERCON C GM 19260800 GM DEX-CVT HONDA HCF-2 HYUNDAI/KIA SP-CVT1 MAZDA CVTF 3320 MITSUBISHI CVTF-J1/J4 NISSAN NS-1/NS-2/NS-3 SUBARU Lineartronic CV-30/CVTF/CVTF II/E-CVT/iCVT SUZUKI TC/NS-2/CVT Green 1/CVT Green 2/CVTF 3320 TOYOTA TC/CVT FE VW TL 521 80 (G 052 180) VW TL 525 16 (G 052 516)
TITAN ATF 3353	Ultra High Performance DEXRON III-generation-ATF for automatic transmissions as well as any other ATF-applications. Developed for the MB automatic transmissions and transfer cases according manufacturer. Offers fuel-efficiency potential. Product dyeing: red.	–	MB-APPROVAL 236.12 VW TL 52533 (G 052 533)	DEXRON III BMW 83 22 9 407 765 FORD WSA-M2C195-A FORD WSS-M2C202-B FORD WSS-M2C922-A1 SSANG YONG
TITAN ATF 3000	Super High Performance DEXRON II (D) ATF for automatic transmissions in commercial vehicles, machinery and passenger cars according to manufacturer's documentation. Product dyeing: red.	–	MAN 339 TYPE L2 MAN 339 TYPE V1 MAN 339 TYPE Z1 MB-APPROVAL 236.1 VOITH H55.6335.xx ZF TE-ML 04D, 14A (ZF000720)	DEXRON II (D) ALLISON C-4 BMW 81 22 9 400 272 BMW 81 22 9 400 275 BMW 81 22 9 407 738 CAT TO-2 FORD MERCON FORD M2C185-A FORD ESP-M2C138-CJ FORD ESP-M2C166-H FORD M2C9010-A OPEL 19 40 700 OPEL 19 40 707 RENK-DOROMAT ZF TE-ML 02F, 03D, 09, 11A, 17C
TITAN ATF 10	High Performance ATF for transmissions, power steering systems and hydraulic drives which require a GM-specification TYPE A, Suffix A fluid. Product dyeing: red.	–	MB-APPROVAL 236.2	TASA MAN 339 TYPE A

Hydraulic Fluids

PENTOSIN


Product name	Description	Specifications	Approvals	FUCHS Recommendations
Central Hydraulic / Power Steering Fluids				
PENTOSIN CHF 115	Premium Performance Power Steering and Central Hydraulic Fluid with a wide application and approval profile for various manufacturers. Product dyeing: green.	FORD WSS-M2C204-A	CHRYSLER MS-11655B MAN M 3289 MB-APPROVAL 345.0 PSA S712710 ZF TE-ML 02K (ZF000832) VW TL 52 146 (G 002 000)	BENTLEY JNV862564F BMW 81 22 9 407 758 BMW 82 11 1 468 041 BMW 83 29 0 429 576 FENDT X 902 011 622 OPEL B 040 0070 PORSCHE 000 043 203 33 SAAB 3032 380 VOLVO 1161529
PENTOSIN CHF 202	Premium Performance Power Steering and Central Hydraulic Fluid with a wide application and approval profile for various manufacturers. Product dyeing: green.	FORD WSS-M2C204-A2	OPEL B 040 2012 HYUNDAI 00232-19017 VW TL 52 146.01 (G 004 000)	AUDI/VW G 004 012 PORSCHE 000 043 206 56 SAAB 93160548 VOLVO 30741424 LAND ROVER LR003401
PENTOSIN CHF 5364 B	Premium Performance Central Hydraulic Fluid approved by Mercedes-Benz for level control systems in passenger cars formulated with fully-synthetic base oils. Product dyeing: none.	–	MB-APPROVAL 344.0	–
PENTOSIN LHM+	Ultra High Performance Central Hydraulic Fluid for use in the comfort and safety area of PSA vehicles. Product dyeing: green-yellow.	–	PSA B71 2710	IVECO 18-1823 MASSEY FERGUSON NH 610A SDFG OF16115
PENTOSIN PSF	Super High Performance Power Steering Fluid approved by Mercedes-Benz for passenger cars and commercial vehicles. Product dyeing: none.	–	MB-APPROVAL 236.3	–

Lubricants for Agricultural Machinery



Product name	Description	Specifications	Approvals	FUCHS Recommendations
STOU Oils				
AGRIFARM STOU MC PRO SAE 10W-40	Ultra High Performance Multi-functional Oil (STOU/MFO) of the latest generation for agricultural vehicles.	SAE J300: SAE 10W-40	DEUTZ DQC III-10	ACEA E7(E5/E3),E4, API CI-4, API GL-3/GL-4/API GL-5 in tractors* MAN 3275 AFNOR NFE 48603 HV, ALLISON C-4 CASE MS 1207, 1209, 1210, 1230 CNH MAT 3505, 3509, 3525, 3526 DIN 51524-3: HVLP (-D) FNHA 2C-200.00, 201.00 FORD M2C48-C3, M2C86-B, M2C134-D, M2C159-B/C JOHN DEERE JDM J20C NEW HOLLAND 82009201/2/3 NH 030C, 330G, 330H, 410B, 420A, 526C MASSEY FERGUSON CMS M 1145, 1144, 1143, 1139, 1135 SAE J306: SAE 80W-90 ZF TE-ML 06A, 06B, 06C, 06F, 06L, 07B * without HOLMER
AGRIFARM STOU MC SAE 10W-30	MC-synthesis Super High Performance Multifunctional, Oil (STOU/MFO) for engines, manual gear boxes, wet brakes, hydraulics and turbo-drives in tractors and other agricultural machinery.	API GL-4 SAE J300: SAE 10W-30	DEUTZ DQC I-02 ZF TE-ML 06B, 06F, 07B (ZF000733)	AFNOR NFE 48603 HV DIN 51524-3: HVLP (-D) ACEA E3 API CG-4 ALLISON C-4 CASE MS 1207, 1209, 1210, 1230 CNH MAT 3505, 3509, 3525, 3526 FORD M2C48-C3, M2C86-B, M2C134-D, M2C159-B/C JOHN DEERE JDM J20 C NEW HOLLAND 82009201/2/3 NH 410B, 420A MASSEY FERGUSON CMS M 1145, 1144, 1143, 1139, 1135 SAE J306: SAE 75W-80 ZF TE-ML 06A, 06C

AGRIFARM

Product name	Description	Specifications	Approvals	FUCHS Recommendations
STOU Oils				
AGRIFARM STOU MC SAE 10W-40	Super High Performance Multifunctional Oil (STOU / MFO) based on MC-base-oil technology for engines, manual gear boxes, wet brakes, hydraulics and turbo-drives in tractors and other agricultural and other commercial vehicles.	API GL-4 SAE J300: SAE 10W-40	DEUTZ DQC I-02 FENDT KDM 17/2012 ZF TE-ML 06B, 06F, 07B (ZF000729)	API GL-5 in tractors* ACEA E3 API CG-4 MAN 271 AFNOR NFE 48603 HV ALLISON C-4 CASE MS 1207, 1209, 1210, 1230 CNH MAT 3505, 3509, 3525, 3526 DIN 51524-3: HVLP (-D) FORD M2C 134-D, M2C 159-B/C FNHA 2C-200.00, 201.00, FORD M2C48-C3, M2C-86 B JOHN DEERE JDM J20C NEW HOLLAND 82009201/2/3 NH 030C, 330G, 410B, 420A, 526C MASSEY FERGUSON CMS M 1145, 1144, 1143, 1139, 1135 SAE J306: SAE 80W-90 ZF TE-ML 06A, 06C, 06L * without HOLMER
AGRIFARM STOU SAE 15W-40	High Performance Multifunctional Oil (STOU / MFO) for engines, manual gear boxes, wet brakes, hydraulics in tractors and other agricultural equipment.	API GL-4	FENDT KDM 17/2012	ACEA E2 API CF-4 CNH MAT 3525, 3526 DIN 51524 : HLP (-D) FNHA 200.00, 201.00 FORD M2C 134-D, M2C 159-B/C JOHN DEERE JDM J20C MASSEY FERGUSON CMS M 1145, 1144, 1143, 1139, 1135 NEW HOLLAND 82009201/2/3 NH 420A SAE J306: 80W-90 SDFG OU 1391, OT 1891 STEYR D-401 ZF TE-ML 06A, 06B, 06C, 07B
Engine Oils				
AGRIFARM MOT X-LA SAE 10W-40	Premium Performance Engine Oil for agricultural vehicles. Universal engine oil for application in modern vehicles with exhaust after treatment as well as in older vehicles. Best engine cleanliness and outstanding wear protection.	ACEA E9/E7/E6/E4 API CJ-4/ CI-4 PLUS/ CI-4/ CH-4 CAT ECF-3	DEUTZ DQC IV-10 LA (incl. TTCD) MB-APPROVAL 228.51	CNH MAT 3521 CUMMINS CES 20081
AGRIFARM MOT SAE 10W-40	Ultra High Performance Engine Oil of the latest conception of the SAE grade 10W-40. It was developed for advanced diesel engines which made high demands on service intervals and engine cleanliness. Specially recommended for normally aspirated and turbo-charged engines.	ACEA E7 API CI-4 GLOBAL DHD-1 JASO DH-1	–	ALLISON C-4 CAT ECF-2 CUMMINS CES 20071/2/6/7/8 DAF DEUTZ DQC III MACK EO-M PLUS MAN M 3275-1 MTU DDC TYPE 2 RENAULT RLD/RLD-2 VOLVO VDS-3

Lubricants for Agricultural Machinery

Product name	Description	Specifications	Approvals	FUCHS Recommendations
Engine Oils				
AGRIFARM MOT SAE 15W-40	Super High Performance Engine Oil for normally aspirated and turbocharged diesel engines in tractors and other machinery which make high demands on service intervals and engine cleanliness.	ACEA E7 API CI-4/SL GLOBAL DHD-1 CAT ECF-1-a/ ECF-2	DEUTZ DQC III-10 MB-APPROVAL 228.3	ALLISON C-4 CAT TO-2 CASE MS 1121 CUMMINS CES 20071/2/6/7/8 DETROIT DIESEL 93K215 IVECO 18-1804 CLASSE T2 E7 MACK EO-N MAN M 3275-1 MTU DDC TYPE 2 NH 330H RENAULT RLD/RLD-2 STEYR A-201 VOLVO VDS-3
UTTO Oils				
AGRIFARM UTTO VT	Ultra High Performance Multi-functional Oil (UTTO/MFO) for use in transmission and hydraulic systems with integrated wet brakes, clutches and differentials for agricultural and construction machinery.	API GL-4	ZF TE-ML 06B, 06D, 06N, 07B (ZF002035)	ACEA E2 API CF-4/ CG-4/SF ALLISON C-4 CAT TO-2 FORD M2C159-B/C JOHN DEERE JDM J20C JOHN DEERE JDM J27 MASSEY FERGUSON CMS M 1145 (1144, 1143, 1139, 1135) SAE J300: 10W-30; SAE J306: 80W-80 ZF TE-ML 06C, 06F, 06Q, 06R
AGRIFARM UTTO MP	Super High Performance Multi-functional Oil (UTTO/MFO) for use in transmission and hydraulic systems with integrated wet brakes, clutches and differentials for agricultural and construction machinery.	API GL-4	ZF TE-ML 03E, 05F, 06K, 17E, 21F (ZF002183)	AGCO Powerfluid 821 XL AGCO Q-186 (Whitefarm) ALLISON C-4 CASE MS 1230, 1210, 1209, 1207, 1206 CLAAS / LANDINI / SAME-Transmission CNH MAT 3505, 3506, 3509, 3525, 3526, 3540 FNHA-2-C-200.00 / -201.00 FORD M2C48-C3, ESN M2C86-B/C, M2C134-D JOHN DEERE JDM J20C KUBOTA UDT FLUID MASSEY FERGUSON CMS M 1145, 1143, 1141, 1135 NH 410B SAE J300: 10W-30; SAE J306: 75W-80 SDFG OT 1891 A VALTRA G2-08, G2-B10
AGRIFARM UTTO LN	Super High Performance Transmission Hydraulic Fluid developed as a problem-solver for tractors in which conventional UTTO oils led to noisy wet brakes.	API GL-4 SAE J300: 20W-30	–	AGCO Powerfluid 821 XL AGCO Q-186 (Whitefarm) ALLISON C-4 CASE MS 1206, 1207, 1209, 1210, 1230 CNH MAT 3505, 3506, 3509, 3525, 3526 FNHA-2-C-200.00 / -201.00 FORD M2C48C3, ESN M2C86-B/C, M2C134-D JOHN DEERE JDM J20C MASSEY FERGUSON CMS M 1141, 1135 SAE J306: 80W-85 CLAAS / LANDINI / SAME-Transmission / DEUTZ-FAHR FENDT (non Vario)

AGRIFARM, PLANTO

Product name	Description	Specifications	Approvals	FUCHS Recommendations
Rapidly Biodegradable Lubricant				
PLANTO HYTRAC PLUS	Biodegradable Super High Performance Multifunctional Oil (UTTO) for tractor gear boxes with or without wet brakes.	SAE 10W-30 SAE 80	–	CASE MS 1207, 1209 FORD M2C 134-D JOHN DEERE JDM J20C NEW HOLLAND NH 410 BS MASSEY FERGUSON CMS M1127, 1135, 1143 HLP/HVLP ISO VG 32, 46, 68, 100 according to DIN 51 524-2 (-3)
Gear Oil				
AGRIFARM GEAR LS SAE 90	Super High Performance EP Gear Oil for axles fitted with limited-slip differentials in agricultural and other machinery.	API GL-5	–	NH 520B SDFG OP 1705LS VOLVO 97310 ZF TE-ML 05C, 12C, 16E
Milking Machine Oil				
AGRIFARM MILKING MACHINE OIL	Ultra High Performance Milking Machine Oil specially developed for use in the vacuum pumps of milking machines. It contains additives which protect against wear and corrosion and foaming. These features increase the functional reliability of such systems.	–	–	ALFA LAVAL WESTFALIA

Motorcycle Lubricants



Product name	Description	Specifications	Approvals	FUCHS Recommendations
RACE Engine Oils – For professional racers and everybody who rides at the limit				
SILKOLENE PRO 4 SAE 5W-40 XP SAE 10W-40 XP SAE 10W-50 XP SAE 15W-50 XP SAE 10W-60 XP	Premium Performance four-stroke engine oil for all high performance motorcycles with latest XP Technology.	API SM/SN	JASO MA2	–
SILKOLENE PRO KR2	Two-stroke race cart oil formulated with synthetic base oils and castor oil. Use manufacturer's recommended mixing ratios. Not miscible with other lubricants.	–	CIK-FIA	–
SILKOLENE PRO 2	Fully-synthetic two-stroke racing engine oil. Specially formulated for extreme conditions. Not miscible with conventional two-stroke oils. Only suitable for Premix systems.	–	CIK-FIA	–
SILKOLENE COMP 2 PLUS	Fully-synthetic two-stroke racing engine oil. Perfect for GP racing engines. Suitable for Premix and Autolube systems.	API TC JASO FC/FD ISO-L-EGD	–	–
RIDE Engine Oils– For the tourer and street rider				
SILKOLENE COMP 4 SAE 10W-30 XP SAE 15W-50 XP	Ultra High Performance four-stroke engine oil for all high performance motorcycles with latest XP Technology.	API SL	JASO MA2	–
SILKOLENE SUPER 4 SAE 15W-40	Four-stroke engine oil formulated with selected base oils. Specially for use in BMW motorcycles with and without wet clutches.	–	–	API SF/SG BMW Motorrad JASO MA
SILKOLENE SUPER 4 SAE 10W-40	MC-synthesis four-stroke engine oil. High-quality standard product offering excellent protection.	API SJ	JASO MA2	–

Silkolene®

Product name	Description	Specifications	Approvals	FUCHS Recommendations
RIDE Engine Oils– For the tourer and street rider				
SILKOLENE SUPER 4 SAE 20W-50	MC-synthesis four-stroke engine oil. High-quality standard product offering excellent protection.	–	JASO MA2	API SF/SG
SILKOLENE V-TWIN SAE 20W-50	Mineral four-stroke engine oil. Specially developed for Harley-Davidson and European/ Japanese Metric V-Twins.	API SL	JASO MA2	–
SILKOLENE COMP 2	Synthetic two-stroke engine oil. Reliable protection against seizures, ring sticking and coking. Suitable for Premix and Autolube systems.	API TC JASO FC/FD ISO-L-EGD	–	–
SCOOT Engine Oils – The name says it all				
SILKOLENE SCOOT SPORT 2	Synthetic two-stroke engine oil for highly-stressed scooter engines. Suitable for Premix and Autolube systems.	API TC JASO FC/FD ISO-L-EGD	–	–
SILKOLENE SCOOT 2	MC-synthesis two-stroke engine oil for scooters and mopeds. Suitable for Premix and Autolube systems.	API TC JASO FC	–	–
MAINTAIN – Maintenance and protection for your bike				
SILKOLENE PRO SRG 75	Fully-synthetic, ester-based racing gear oil. Excellent protection against wear and easy shifting even at extreme temperatures.	–	–	–
SILKOLENE COMP GEAR OIL SAE 80W-90	Synthetic, high-performance, ester-based gear oil. Particularly recommended when the gear box contains aluminium components.	API GL-4/GL-3	–	–
SILKOLENE MAG COOL	Ready to use, powerful engine coolant for all year round use. Anti-cavitation performance exceeds that of conventional ethylene glycol based anti-freezes, providing the user with superior protection against engine and coolant pump damage due to this phenomenon.	–	–	–
SILKOLENE RSF 2.5 / 5 / 7.5 / 10 / 15	Fully-synthetic shock-absorber fluids and special fork oils with a high viscosity index in diferent viscosity ranges. Specially developed for racing.	–	–	–
SILKOLENE FOAM FILTER CLEANER	Special water-soluble cleaner used to wash foam filter elements.	–	–	–
SILKOLENE PRO CHAIN	Fully-synthetic racing chain lube spray for high-performance road, racing and motocross applications. For all chains with or without O-rings.	–	–	–
SILKOLENE TITANIUM DRI GEL	Advanced chain lubricating gel: Effectively resists fling-off and appears whitish when applied.	–	–	–
SILKOLENE CHAIN LUBE	Synthetic chain lube spray for optimum wear and rust protection. For all motorcycle chains with or without O-rings.	–	–	–
SILKOLENE PRO PREP	Special conditioning spray for plastics and painted surfaces restores the „brand-new“ look.	–	–	–

Motorcycle Lubricants

Silkolene®

Product name	Description	Specifications	Approvals	FUCHS Recommendations
MAINTAIN – Maintenance and protection for your bike				
SILKOLENE ALL-IN-ONE	Multipurpose maintenance spray with a multitude of uses: SILKOLENE ALL-IN-ONE can be used to dry out damp ignitions or free rusted fasteners. It has excellent dewatering properties, repels moisture, penetrates corroded threads, lubricates and even offers protection against corrosion.	–	–	–
SILKOLENE BRAKE & CHAIN CLEANER	Highly effective cleaner for brakes and drive chains. Effectively removes caked residue.	–	–	–

Service Products

MAINTAIN



Product name	Description	Specifications	Approvals	FUCHS Recommendations
Antifreezes				
MAINTAIN FRICOFIN LL	Premium Performance Coolant Additive based on monoethylene glycol. Free from nitrite, amine, phosphate and silicates. Product dyeing: orange.	ASTM D 3306 TYPE I ASTM D 6210 TYPE I-FF BS 6580:2010 SAE J814 FORD WSS-M97-B44-D JAGUAR LAND ROVER STJLR.651.5003 FVV Heft R443 KSM 2142 UNE 26-361-88/1	Bez.Reg.Arnsbg. E62.12.22.64-2011-1 CAT / MWM TR 0199-99-2091 DAF 74002 DEUTZ DQC CB-14 MAN 324 TYPE SNF MB-APPROVAL 325.3	AFNOR NFR 15-601 TYPE I AS/NZS 2108:2004 TYPE A ASTM D 4985 SAE J1034 ADE (ATLANTIS DIESEL ENGINES) BAIC GROUP FOTON Q-FPT 2313005-2013 CATERPILLAR MAK A4.05.09.01 CHRYSLER MS 12106 CNH MAT 3624 CUMMINS (ISBe engines at DAF and Leyland) CUMMINS CES 14603, CES 14439 DETROIT DIESEL 93K217 FIAT 9.55523 GM GMW 3420 (6277M)/ GME L 1301 HYUNDAI MS 591-08 JASO M325 JIS K2234 JOHN DEERE JDM H5 KOMATSU AF-NAC (07.892 (2009)) LIEBHERR MD 1-36-130 MACK 014 GS 17009 MAZDA MEZ MN 121 D PSA B 71 5110 RENAULT 41-01-001/- -S Type D SAAB B 040 1065 SKODA 61-0-0257 TOYOTA TSK 2601G-8A VW TL 774-D/F (G12+ / different colour) VOLVO COOLANT VCS (STD 418-0001)

Service Products

Product name	Description	Specifications	Approvals	FUCHS Recommendations
Antifreezes				
MAINTAIN FRICOFIN V	Ultra High Performance Coolant Additive based on monoethylene glycol. Free of nitrites, amines and phosphates. Product dyeing: pink-violet.	ASTM D 3306 TYPE I BS 6580:2010	VW TL 774-J (G13)	–
MAINTAIN FRICOFIN DP	Ultra High Performance Coolant Additive based on monoethylene glycol. Free from nitrite, amine and phosphate. Product dyeing: pink-violet.	AFNOR NF R 15-601 TYPE 1 AS/NZS 2108:2004 TYPE A ASTM D 3306 TYPE I ASTM D 4985 BS 6580:2010 SAE J814 CUMMINS CES 14603	DEUTZ DQC CC-14 MAN 324 TYPE Si-OAT MB-APPROVAL 325.5 MB-APPROVAL 325.6	DETROIT DIESEL 93K217 SCANIA TB 1451 VW TL 774-G (G12++)
MAINTAIN FRICOFIN DP -35	Ultra High Performance Coolant Ready-Mix based on monoethylene glycol. Offers frost protection down to -35°C. Free from nitrite, amine and phosphate. Product dyeing: pink-violet	AFNOR NF R 15-601 TYPE 3 ASTM D 3306 TYPE III ASTM D 4985 BS 6580:2010 SAE J814 CUMMINS CES 14603	DEUTZ DQC CC-14 MB-APPROVAL 326.5 MB-APPROVAL 326.6	DETROIT DIESEL 93K217 MAN 324 TYPE Si-OAT SCANIA TB 1451 VW TL 774-G (G12++)
MAINTAIN FRICOFIN HDD	Ultra High Performance Engine Coolant concentrate based on monoethylene glycol. Free of amines and phosphates with low silicate technology. Product dyeing: yellow.	ASTM D 3306 TYPE I ASTM D 4985 ASTM D 6210 TYPE I-FF ASTM D 7583 AS/NZS 2108:2004 TYPE A BS 6580:2010 SAE J814 CHRYSLER MS 7170 CHRYSLER MS 9769 DETROIT DIESEL 7SE298 FORD ESE-M97B44-A FORD ESE-M97B18-C FORD WSS M97B51-A1 GM 1825M & GM 1899M JIS K2234 MACK 014GS17004	MTU MTL 5048	CASE MS 1710 CAT EC-1 CUMMINS CES 14603 DETROIT DIESEL 93K217 (NOAT) FREIGHTLINER 48-2288D IVECO 18-1830 KENWORTH R026-170-97 MAN 324 TYPE N NEW HOLLAND WSN-M97B18-D PACCAR CS 0185 TOYOTA Motor Corp. RP 329
MAINTAIN FRICOFIN	Super High Performance Coolant Additive based on monoethylene glycol. Free from nitrite, amine and phosphate. Product dyeing: blue-green.	AFNOR NF R 15-601 TYPE 1 AS/NZS 2108:2004 TYPE A ASTM D 3306 TYPE I ASTM D 4985 BS 6580:2010 CUNA NC 956-16 SAE J814 SAE J1034	BMW GS 94000 (BMW N 600 69.0) CAT / MWM TR 0199-99-2091 DEUTZ DQC CA-14 GE JENBACHER TA 1000-0201 MAN 324 TYPE NF MAN 324 TYPE NF PRITARDER MB-APPROVAL 325.0 MTU MTL 5048 PN-C 40007:2000 VOITH TURBO 172.00225010	DAF 74001 LIEBHERR TLV 035/TLV 23009 A OPEL/GM B 040 0240 VW TL 774-C (G11)

MAINTAIN

Product name	Description	Specifications	Approvals	FUCHS Recommendations
Antifreezes				
MAINTAIN FRICOFIN -35	Super High Performance Coolant Ready-Mix based on monoethylene glycol. Offers frost protection down to -35 °C. Free from nitrite, amine and phosphate. Product dyeing: blue-green.	AFNOR NF R 15-601 TYPE 3 ASTM D 3306 TYPE III ASTM D 4985 BS 6580:2010 SAE J814	DEUTZ DQC CA-14 MB-APPROVAL 326.0	BMW GS 94000 (BMW N 600 69.0) DAF 74001 JENBACHER TA 1000-0201 LIEBHERR TLV 035/TLV 23009 A MAN 324 TYPE NF MAN 324 TYPE NF PRITARDER MTU MTL 5048 CAT / MWM TR 0199-99-2091 OPEL/GM B 040 0240 PN-C 40007:2000 VOITH TURBO 172.00225010 VW TL 774-C (G11)
MAINTAIN FRICOFIN S	High Performance Coolant Additive based on monoethylene glycol. Free from nitrite, amine and phosphate. Product dyeing: light green.	ASTM D 3306 TYPE I BS 6580:2010	–	–
Brake Fluids				
MAINTAIN DOT 5.1	Ultra High Performance Brake Fluid for hydraulic brake systems and clutch actuation in passenger cars, trucks and motorcycles.	FMVSS NR. 116 DOT 5.1 ISO 4925 CLASS 3/4/5.1 SAE J 1703/J 1704	–	–
MAINTAIN DOT 4	Super High Performance Brake Fluid for hydraulic brake systems and clutch actuation in passenger cars, trucks and motorcycles.	FMVSS NR. 116 DOT 3/ DOT 4 ISO 4925 CLASS 3/4 SAE J1703/J1704	–	FORD M6C62-A FORD M6C9103-A NH 800A OPEL 19 42 421
Fuel Additives				
MAINTAIN DIESEL EFFECT	Super High Performance Fuel Additive improving diesel fuel properties for singular as well as constant treatment.	–	–	–
MAINTAIN GASOLINE PLUS	Super High Performance Fuel Additive designed to clean the entire fuel system of gasoline engines. Recommended for constant use.	–	–	–
MAINTAIN WINTERFIT	Super High Performance Diesel Fuel and Heating Oil Additive to prevent waxing and plugging at low temperatures.	–	–	–
Oil Binder				
MAINTAIN ABSORPEX	Oil Binder Type III R, Chemical Binder	Reported by Hygiene Institut Gelsenkirchen MPL	–	–

Specialities



Product name	Description	Density at 15 °C kg/m ³	Flash point Clev. °C	Kin. visc. at 40 °C mm ² /s	Kin. visc. at 100 °C mm ² /s	VI	Pour-point °C	Main application area
Multigrade Hydraulic Oils								
TITAN HYD MR 530 MC	Ultra High Performance multigrade hydraulic oil for working machines (construction machines) as well as other automotive passenger car applications. Fulfils and surpasses the requirements on hydraulic oils HVLPD acc. to DIN 51524-3 (except: detergent / dispersant) HVLPD covers SAE 5W until 30 resp. ISO VG 32 until 68 (100).	864	234	46	8.3	154	-48	For application in working machines (construction machines) as well as other automotive vehicles.
TITAN HYD 1030	Super High Performance multigrade hydraulic oil for hydraulic systems in vehicles and working machines. Fulfils and surpasses the requirements on hydraulic oils HVLP acc. to DIN 51524-3 resp. HV acc. to ISO 11158.	885	240	100	11.8	107	-24	For application in hydraulic systems in vehicles and working machines. Approved for Denison HFO. Recommended for CASE MS 1216.

TITAN, RENOLIN

Product name	Description	Density at 15 °C kg/m ³	Flash point Clev. °C	Kin. visc. at 40 °C mm ² /s	Kin. visc. at 100 °C mm ² /s	VI	Pour-point °C	Main application area
Hydraulic and Industrial Gear Oils								
RENOLIN XtremeTemp 46	Universal, high-performance hydraulic oil with high viscosity index and increased shear stability (VI 180). Based on special hydrogenated base oils, very good ageing behaviour, long lifetime, excellent corrosion protection and very good wear protection, fulfils and surpasses DIN 51524-3: HVLV ISO 6743-4: HV ISO 11158: HV zinc containing AW/EP additive system	853	230	48	9.3	180	-34	Universal high-performance multigrade hydraulic oil for stationary and mobile hydraulic systems, improvement of efficiency. Allows oil drain intervals to be extended. Energy and fuel saving through high efficiency. Denison HF0, HF1, HF2 Bosch Rexroth RD90235/ RDE90245
RENOLIN XtremeTemp 46 Plus	As RENOLIN XtremeTemp, but with additives which help to avoid stick-slip phenomena. For high-pressure applications; helps to reduce friction under mixed friction conditions DIN 51524-3: HVLV ISO 6743-4: HV	855	234	48	9.3	181	-34	Slightly detergent, multigrade hydraulic oil for stationary and mobile hydraulic systems if the use of HVLV fluids acc. to DIN 51524-3, with wide temperature application range and excellent shear stability, is recommended. Helps to avoid stick-slip problems, especially at low speed and high load. Energy and fuel saving through high efficiency.
RENOLIN UNISYN XT 220	Fully-synthetic industrial gear oils based on new, innovative polyalphaolefins with very high, natural, shear stable viscosity index and excellent low temperature behaviour. Excellent wear protection, high micropitting resistance. RENOLIN UNISYN XT oils exceed the requirements on industrial gear oils CLP-HC acc. to DIN 51517-3, ISO 6743-6, ISO 12925-1: CKC, CKD, CKE and AGMA 9005/E02: EP.	860	242	220	29.4	174	-42	For the use in applications with high requirements on wide temperature range.
RENOLIN UNISYN XT 320		860	242	320	40.2	179	-42	Approved by leading gear box manufacturers.
RENOLIN UNISYN XT 460		860	242	460	54.4	188	-39	Based on PAO

Specialities


RENISO

Product name	Description	Density at 15 °C kg/m ³	Flash point Clev. °C	Kin. visc. at 40 °C mm ² /s	Kin. visc. at 100 °C mm ² /s	VI	Pour-point °C	Main application area
Refrigeration Oils								
RENISO PAG 46	Synthetic refrigeration oils based on special polyalkylene glycols (PAG) for automotive air conditioning units with R134a. NH ₃ – partly miscible refrigeration oils. Also suitable for hydrocarbon applications. DIN 51503: KAB, KD, KE.	992	240	55	10.6	187	-45	Refrigeration oils based on polyalkylene glycols for application with the refrigerant R134a used in car and truck air conditioning systems (a/c systems). RENISO PAG 100 is especially suitable for vane compressors. RENISO PAG 46 and PAG 100 are also recommended for the use with hydrocarbon refrigerants and ammonia.
RENISO PAG 100		996	240	120	21.0	202	-45	
RENISO PAG 1234	Synthetic refrigeration oil based on double-end-capped polyalkylene glycols (PAG). For vehicle a/c systems with R1234yf. Also suitable for R134a. DIN 51503: KD.	993	224	44	9.8	218	-45	RENISO PAG 1234 has been newly developed for car air-conditioning systems with R1234yf. The product combines both good miscibility properties and high thermo-chemical stability in contact with the refrigerant. Basic fluid and additivation of RENISO PAG 1234 guarantee best lubrication properties and wear protection.
RENISO ACC HV	Synthetic refrigeration oil based on special, double-end capped PAGs for trans-critical CO ₂ applications (industrial and commercial applications). DIN 51503: KB.	991	229	65	13.5	216	-45	RENISO ACC HV was developed in close collaboration with leading compressor manufacturers and OEMs specific for CO ₂ air conditioning systems in vehicles. RENISO ACC HV is based on chemical and thermal extremely stable double end-capped PAG fluids with efficient additivation – especially with regard to wear protection.

Rapidly Biodegradable Lubricants



PLANTO



Product name	Description	Density at 15 °C kg/m ³	Flash point Clev. °C	Kin. visc. at 40 °C mm ² /s	Kin. visc. at 100 °C mm ² /s	VI	Pour-point °C	Main application area
Environmentally Friendly Hydraulic and Lubricating Oils								
PLANTOSYN 3268 	PLANTOSYN 3268 is a biodegradable hydraulic and lubricating oil based on fully saturated synthetic esters. Biodegradable acc. to OECD 301 B >60%. High wear protection, good elastomer and yellow metal compatibility, very good oxidation stability. Surpasses the requirements on hydraulic oils HEES acc. to ISO 15380 and HVLP acc. to DIN 51524-3 (except: Dry TOST test). Awarded the EU Ecolabel: DE / 027 / 149	913	280	46	8.2	150	-36	Suitable for all mobile and stationary hydraulic systems for which the use of a rapidly biodegradable HEES hydraulic oil according to DIN ISO 15380 is recommended (e.g. in agriculture and forestry). Can be used where unsaturated, synthetic esters have failed. Extension of oil changing intervals possible. Oil sump temperature: -30 °C to 100 °C. Observe DIN ISO 15380 when making changeovers. Approved by: MANNESMANN REXROTH Sauer SUNDSTRAND FENDT KDM 28/2006, O&K Baumaschinen Recommended for CAT BF-1, KRAMER ALLRAD; PLAFINGER; SAUER DANFOSS; TIMBERJACK; VALMET/ KOMATSU; FOREST; PONSSE

Rapidly Biodegradable Lubricants




PLANTO

Product name	Description	Density at 15 °C kg/m ³	Flash point Clev. °C	Kin. visc. at 40 °C mm ² /s	Kin. visc. at 100 °C mm ² /s	VI	Pour-point °C	Main application area
Environmentally Friendly Hydraulic and Lubricating Oils								
PLANTOSYN 3268 ECO 	PLANTOSYN 3268 ECO – hydraulic oil based on synthetic esters with additives to increase ageing stability. Biodegradable acc. to OECD 301 B >60%. High wear protection. Surpasses the requirements acc. to ISO 15380: HEES DIN 51524-3: HVLP (except: Dry TOST test). Awarded the EU Ecolabel: DE / 027 / 160	920	300	47	9.5	191	-33	Universally recommended for hydraulic systems from -30 °C to +90 °C (oil sump temperature). The changeover guidelines according to DIN ISO 15380 must be observed. Approved by FENDT KDM 28/2006
PLANTOLUBE KS 32-N	Biodegradable tacky and lubricating oil based on rapeseed oils. For chains and other so-called loss lubrication points.	921	205	32	7.6	230	-36	Universally usable as lubricating oil in chains and other so-called loss lubrication points in the agriculture and forestry sector. For the lubrication of conveyor machines in saw mills and in the animal feed stuff industry. For the use in applications where a biodegradable chain oil is required.
PLANTO TAC 68 	Biodegradable high performance chain saw oil based on rapeseed oils. Excellent lubrication behaviour, good ageing resistance. Awarded the EU Ecolabel.	924	>270	68	12.0	216	-39	For the professional use in chain saws. KWF Approvals Recommendations: Husqvarna, Stihl, Solo, Dolmar



Greases

PLANTO



Product name	Classification DIN 51502 ISO 6743-9	Thickener Base oil	Solid lubri- cants	NLGI grade	Base oil viscosi- ty at 40 °C [mm ² /s]	Tem- pera- ture range [°C]	Approvals, recommen- dations	Main application area
Rapidly Biodegradable Greases								
PLANTOGEL ECO 1 N 	–	Calcium Rape seed oil	–	1	36	-20 / +70	EU Ecolabel	Rapidly biodegradable lubricating grease with Ecolabel, e.g. for lock gates or in agriculture and forestry.
PLANTOGEL ECO 2 N 	–	Calcium Rape seed oil	–	2	36	-20 / +70	EU Ecolabel	Rapidly biodegradable lubricating grease with Ecolabel, e.g. for lock gates or in agriculture and forestry.
PLANTOGEL ECO 000 S	–	Li/Ca synth. ester	–	00-000	55	-40 / +120	–	Rapidly biodegradable semi-fluid grease for lubrication of plain and roller bearings in commercial vehicles and construction machinery with central lubrication systems. Also for gear systems which are exposed to low to medium loads.
PLANTOGEL ECO 2 S (Spray can: PLANTO MULTISPRAY S) 	–	Li/Ca synth. ester	–	2	105	-40 / +120	EU Ecolabel	Rapidly biodegradable EP multipurpose grease for plain and roller bearing lubrication, e.g. water turbines or in agriculture and forestry. Good pumpability in central lubricating systems.

Greases

Product name	Classification DIN 51502 ISO 6743-9	Thickener Base oil	Solid lubri- cants	NLGI grade	Base oil viscosi- ty at 40 °C [mm ² /s]	Tem- pera- ture range [°C]	Approvals, recommen- dations	Main application area
Rapidly Biodegradable Greases								
PLANTOGEL ECO 2 FS	–	Li/Ca synth. ester	•	2	200	-30 / +120	–	Rapidly biodegradable EP multipurpose grease with solid lubrications for lubrication of plain and roller bearings, e.g. commercial vehicles and construction machinery.
PLANTOGEL ECO 402 S 	–	Ca synth. ester	–	2	390	-40 / +120	EU Ecolabel	High performance bio-grease, water (salt water) resistant.
Greases in Spray Cans or Rattle Cans								
DUOTAC ZAHNRADSPRAY	–	Wax Mineral oil	•	–	–	-20 / +150	–	Dry, tenacious lubricating film. Open gears, gear rims, racks, chains, outer lubrication of wire ropes in crane installations, excavators, agricultural machines, rack and pinion railways; to be applied in cold condition, for open toothed-wheel gearing, transportation and conveying systems in the metallurgical industry and roller mills, lubrication/conservation of drag ropes and chains, e.g. in non-metallic mineral processing, solid lubricating film up to +300 °C; Bitumen-free special lubricant with graphite
PLANTO MULTISPRAY S (Grease: PLANTOGEL ECO 2 S) 	–	Li/Ca synth. ester	–	2	105	-40 / +120	EU Ecolabel	Rapidly biodegradable EP multipurpose grease for plain and roller bearing lubrication, e.g. water turbines or in agriculture and forestry. Good pumpability in central lubricating systems.
RENAX GLEITSPRAY (Grease: RENOLIT GL 1)	–	Lithium Semi- synth. base oil	–	1	–	-30 / +140	–	Very adhesive, reduces friction and wear, protects from corrosion, temperature stable, noise-suppressing, suitable for plain and roller bearings and for gear boxes, bowden cables, guide rails, sun roofs, etc.
RENOLIT CA-LZ SPRAY	KP2K-30 ISO-L-X- CCHB2	Calcium Mineral oil	–	2	700	-30 / +120	–	Strongly adhesive, protects from wear even under extreme conditions, very resistant to water wash-out from metallic surfaces, long-term lubrication of passenger cars and commercial vehicles, construction industry, industrial and agricultural machines
RENOLIT UNILOAD (Grease: RENOLIT CX-HT 2)	–	CaSX Mineral oil	•	2	400	-20 / +180	–	Lubrication of high loaded, low speed plain and roller bearings, e.g. for kiln cars, construction machinery, steel mills, coal and ore mills.

PLANTO, RENOLIT

Product name	Classification DIN 51502 ISO 6743-9	Thickener Base oil	Solid lubri- cants	NLGI grade	Base oil viscosi- ty at 40 °C [mm ² /s]	Tem- pera- ture range [°C]	Appro- vals, re- commen- dations	Main application area
Assembly Pastes								
RENOLIT CHUCK PASTE	–	Li/Ca Mineral oil	•	2-3	166	-30 / +155	–	Chucks for machine tools and as mounting aide for gears and electrical motors, etc., ejectors of plastic injection moulding machines (up to +100 °C), prevent corrosion and fretting corrosion
RENOLIT PASTE PW	–	CaSX Mineral oil	•	2	350	-20 / +1200	–	Assembly paste for prevent fretting corrosion, e.g. gears, electrical motors, etc., chucks, superheated steam valves, bearing seats on knuckle pins, or spline connections in length adjusters of car-dan shafts
RENOLIT SI 300 M	MSI2P-70	Lithium Silicone oil	–	2	75	-70 / +160	DBL 6812.10 VW TL 767 X	Low temperature grease for electric and electronic equipment, precision machines, sealing grease for radial waves sealing rings, groove rings, sealing rings; lubrication of sealing bellows
Automotive Applications								
RENOLIT CA-LZ (Spray can: RENOLIT CA-LZ SPRAY)	KP2K-30 ISO-L-X- CCHB2	Calcium Mineral oil	–	2	700	-30 / +120	–	Strongly adhesive, protects from wear even under extreme conditions, very resistant to water wash-out from metallic surfaces, long-term lubrication of passenger cars and commercial vehicles, construction industry, industrial and agricultural machines
RENOLIT CX-HT 0	–	CaSX Mineral oil	•	0	400	-20 / +160	–	Lubrication of high loaded, low speed plain and roller bearings, open gears and gear boxes, e.g. in construction machinery, steel mills, coal and ore mills; can be used in spray and dipping applications.
RENOLIT CX-HT 2 (Spray can: RENOLIT UNILOAD)	–	CaSX Mineral oil	•	2	400	-20 / +180	–	Lubrication of high loaded, low speed plain and roller bearings, e.g. for kiln cars, construction machinery, steel mills, coal and ore mills.
RENOLIT CXI 2	–	CaSX Mineral oil	–	2	400	-20 / +160	–	Lubrication of high loaded, low speed plain and roller bearings and can be applied when the grease has to meet high demands on corrosion protection and working stability. Typical applications are plain and roller bearings in steel mills, paper industry, mining, concrete industry, quarries and construction equipment.
RENOLIT DURAPLEX EP 1	–	Li-X Mineral oil	–	1	105	-30 / +160	–	Roller bearings, electric motor bearings, coupling bearings in the automotive sector, construction machines, forging presses by EUMUCO
RENOLIT DURAPLEX EP 2	–	Li-X Mineral oil	–	2	105	-30 / +160	–	Roller bearings, electric motor bearings, coupling bearings in the automotive sector, construction machines, forging presses by EUMUCO, wheel bearings of commercial vehicles, machine tools

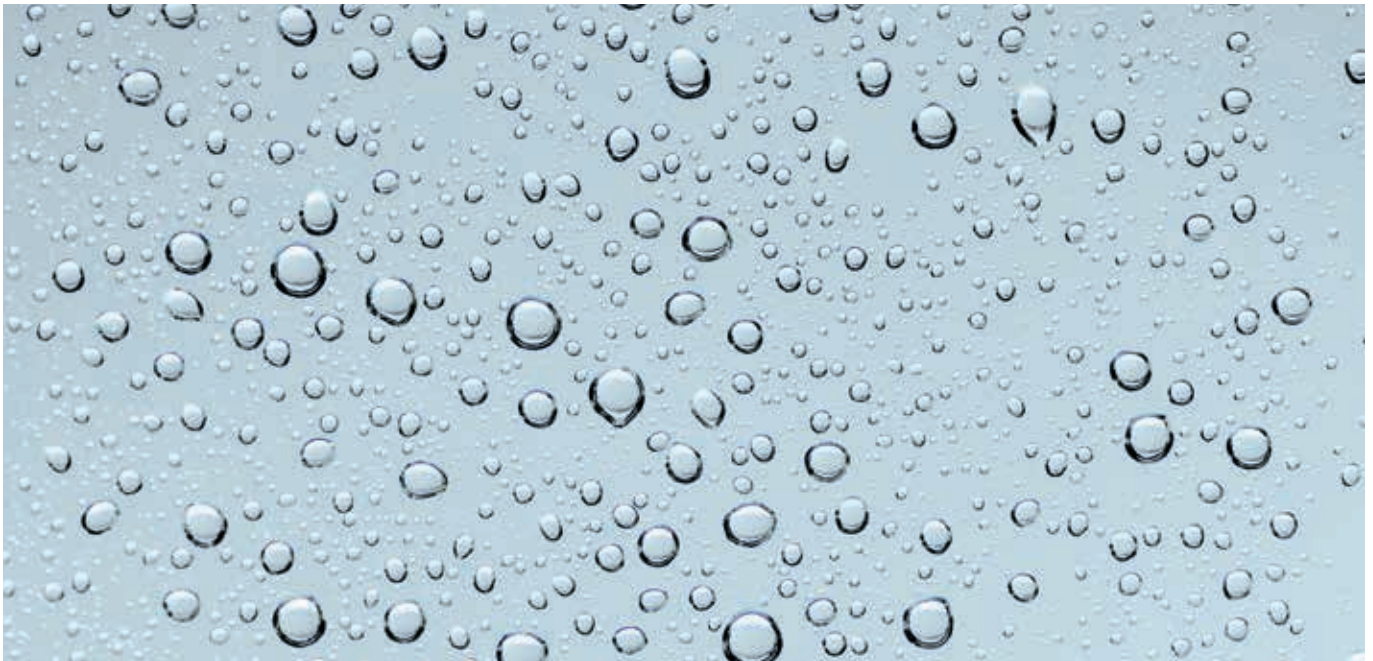
Greases

Product name	Classification DIN 51502 ISO 6743-9	Thickener Base oil	Solid lubri- cants	NLGI grade	Base oil viscosity at 40 °C [mm ² /s]	Tem- pera- ture range [°C]	Appro- vals, re- commen- dations	Main application area
Automotive Applications								
RENOLIT DURAPLEX EP 3	–	Li-X Mineral oil	–	3	105	-20 / +160	–	Roller bearings, electric motor bearings, coupling bearings in the automotive sector, construction machines, forging presses by EUMUCO, wheel bearings of commercial vehicles
RENOLIT FLM 0	–	Lithium Mineral oil	•	0	100	-30 / +120	–	For mechanically loaded lubricating points, grease with MoS ₂ , and additives to improve corrosion protection, EP and AW
RENOLIT FLM 2	KP2N-30 ISO-L-X- CDEB 2	Lithium Mineral oil	•	2	100	-30 / +140	MAN 285 LI-PF 2	For mechanically loaded lubricating points, grease with MoS ₂ , agricultural machines, commercial vehicles, construction industry, quarries and mining, rubber and concrete factory
RENOLIT LZR 000	GP00- 000G-40	Li/Ca Mineral oil	–	00-000	43	-40 / +110	MB-Sheet 264.0 MAN 283 LI-P 00/000	Semi-fluid grease for central lubricating systems of commercial vehicles
RENOLIT LZR 2 H	KP2N-30 ISO-L-X- CDIB 2	Lithium Mineral oil	–	2	230	-30 / +140	Baier & Köppel	Premium multipurpose grease, long-term rust prevention, sealing grease, central lubricating systems, sugar refineries, roof tile factories, paper industry, prevent standstill corrosion, hytrel compatible
RENOLIT LX-OTP 2	–	Li-X Polyglycol	•	1-2	360	-40 / +160	MAN	Lubrication of MAN knuckle pins
RENOLIT LX-PEP 3	KP3N-30 ISO-L-X- CDEB 3	Li-X Mineral oil	–	3	170	-30 / +150	Interprecise (IDC-Bea- rings)	Multipurpose grease, wheel bearings of motor vehicles, roller bearings of e-motors, plain and roller bearings, ventilator grease
RENOLIT LX-PEP 2	KP2N-30 ISO-L-X- CDEB 2	Li-X Mineral oil	–	2	170	-30 / +150	MAN 284 Li-H2, MB 265.1, ZF TE-ML 12, Schaeffler Gruppe, VW TL 52 147 X, Interprecise (IDC-Bea- rings), Deutsche Bahn	Multipurpose grease, wheel bearings of motor vehicles, roller bearings of e-motors, needle bearings of cardan shafts, plain and roller bearings, ventilator grease
RENOLIT MP	KP2K-40 ISO-L-X- DCEB 2	Lithium Mineral oil	–	2	35	-40 / +120	DBL 6804.00 MB-Sheet 267.0	Multipurpose grease for lubricating points in passenger cars, commercial vehicles, engines, where constant temperature does not exceed 100 °C, sliding speeds are very low and which are not exposed to high mechanical loads
RENOLIT MP PLUS	KP2K-30 ISO-L-X- CCEB 2	Lithium Mineral oil	–	2	100	-30 / +120	–	High quality EP multipurpose grease with high adhesiveness for the lubrication of plain and roller bearings. Only available in SR cartridges.

RENOLIT

Product name	Classification DIN 51502 ISO 6743-9	Thickener Base oil	Solid lubri- cants	NLGI grade	Base oil viscosity at 40 °C [mm ² /s]	Tem- pera- ture range [°C]	Appro- vals, re- commen- dations	Main application area
Automotive Applications								
RENOLIT MP 150	KP2K-40 ISO-L-X- DCEB 2	Lithium Mineral oil	–	2	150	-40 / +120	DBL 6804.50 MB sheet 267.1	Multipurpose grease for commercial vehicles. Daimler wheel bearing grease for the workshop area.
RENOLIT MP 735	KP2K-40 ISO-L-X- DCEB 2	Lithium Mineral oil	–	2	105	-40 / +120	VW TL 735 MAN 283 Li-P 2 Stabilus 100 15883	Multipurpose grease
RENOLIT POLAR BLACK	–	Lithium PAO	•	1-2	84	-50 / +140	–	Fully synthetic heavy duty all-season grease with solid lubricants for plain and roller bearings of construction machines and mining vehicles exposed to changing ambient temperatures.

Cleaner



Product name	Function	Materials	Comments	Corrosion protection, chip/ filter test 0/0 at x% in _	pH (2%), if applicable	Concentration range in %	Temperature range	Injection pressure in bar to app.	Density at 15 °C in kg/m ³
Cleaner									
RENOCLEAN MSA 3011	Neutral cleaner for spray, pressure flood, high-pressure cleaning and deburring, salt-free	Fe, Al, Brass, Cu, Mg	Contains hydroxides, suitable for high pressure. PSA approval worldwide: MABEC-code Z 000 533 700. Foam-free from 20 °C, depending on pressure and temperature	Temporary, '2.5 % / 10 °dH	9.8 ± 0.3	1 - 5	60 (20 - 80)	500 (above 50 °C)	1046 ± 10
RENOCLEAN VR 1021 CXV	Neutral cleaner for spray, flood and high-pressure cleaning	Fe, Al, Brass, Cu, Mg	Contains hydroxides, suitable for high-pressure. VW approval A29 0976. High-pressure cleaning (200 bar, 300 short term), nearly foam-free from 30 °C upwards	Temporary, '2% / 10 °dH	9.8 ± 0.3	1 - 5	65 (30 - 80)	200 (300 short term)	1053 ± 10
RENOCLEAN C 20 K 1427	Neutral cleaner for spray application, salt-free	Fe, (Mg) ¹	Very good corrosion protection, low residue formation, salt-free. VW approval A29 2863. E. g.: can be used before heat treatment	Temporary, '1.5% / 10 °dH	10.2 ± 0.3	1 - 5	65 (40 - 80)	~ 15	1044 ± 10

RENOCLEAN

Product name	Function	Ma- terials	Comments	Corrosion protecti- on, chip/ filter test 0/0 at x% in _	pH (2%), if appli- cable	Concen- tration range in %	Tem- pera- ture range	Injection pressure in bar to app.	Density at 15 °C in kg/m ³
Cleaner									
RENOCLEAN SPEZIAL 2000	Emulsifying uni- versal cleaner for immersion, ultrasonic and manual cleaning of commercial vehicles, tarpau- lins, halls and workshops.	All mate- rials ¹	Contains phosphates Specs • FORD 800 51 007. Suitable for all manual cleaning, for immersion, steam jet and floor cleaning equip- ment	–	10.9 ± 0.4 at 3%	2 - 20	35 (20 - 80)	–	1045 ± 10

Product name	Function	Flash point	Boiling range	Density at 15 °C in kg/m ³	Ma- terials	Comments
Cleaner						
RENOCLEAN KLV	Hydrocarbon cleaner, VOC- and aromatic- free	≥ 90 °C	217 - 255 °C	810 ± 15 kg/m ³	All ma- terials, plastics ¹	VOC-compliant, universal application, slow evaporation. VW approval A29 2819. Simple application, e. g. for removal of car wax preservation.

Fitting Product

RENOCLEAN

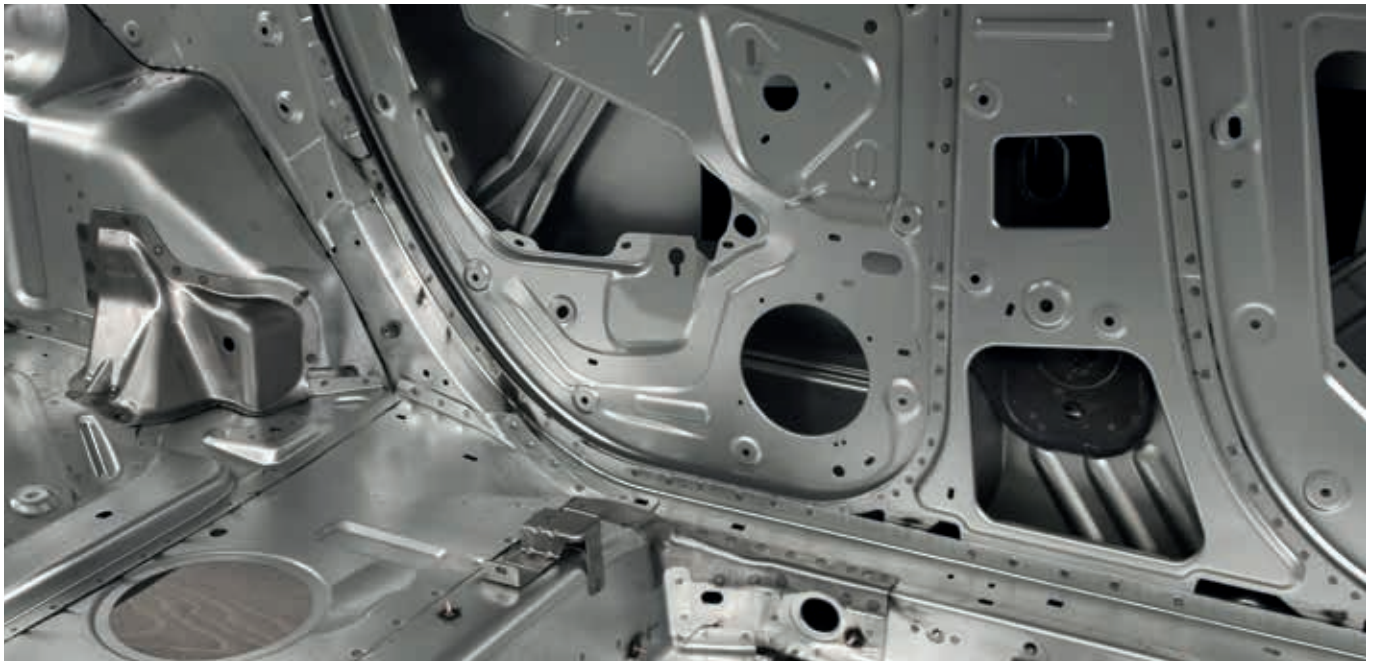
Product name	Function	Ma- terials	Comments	Corrosion protecti- on, chip/ filter test 0/0 at x% in _	pH (2%), if appli- cable	Concen- tration range in %	Tem- pera- ture range	Injection pressure in bar to app.	Density at 15 °C in kg/m ³
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Fitting Product

RENOCLEAN 431	Industrial assembly aid for rubber and elastomers	–	Lubricant, e. g. for fitting window seals made of rubber, hoses etc. Parts are fixed after drying, no more sliding effect	–	7 ± 1 (100%)	10 - 30	15 - 30	–	1017 ± 10
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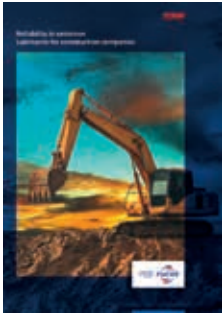
Corrosion Preventives

ANTICORIT



Product name	Description	Kin. visc. at 40 °C [mm ² /s] DIN 51562	Density at 15 °C [KG/m ³]	Consumption [l/m ²]	Film weight [g/m ²]	Shed storage [Mon.]	Hall storage [Mon.]
Spray Cans							
ANTICORIT 5F	Rust preventative spray forming a thin film with active water displacement	3.7 at 20 °C	813	–	2.5	6-12	12-24
ANTICORIT BW 366	Solvent-based and durable high performance corrosion protection wax	FT 4mm nozzle = 60s	885	–	50	12-36	12-36
ANTICORIT DFG	Classic anti-corrosive oil and contact spray, multipurpose	84	887	–	5	6-12	12-24
ANTICORIT RPC	Rust preventative spray, after evaporation a highly viscous film is formed	84	887	–	5	6-12	6-24
ANTICORIT CPX 3373	Solvent-free and durable high performance corrosion protection wax	Dyn. visc. at 300 1/min = 350m*Pas	1005	–	50	>36	>36
ANTICORIT SYNTH	Synthetic multipurpose oil	102	834	–	15	3-6	6-12
RENOCLEAN E	Highly effective degreaser for multipurpose use	1.7 at 20 °C	800	–	0	–	–
ANTICORIT RP 4107 S	Thixotropic corrosion protection oil, meets VDA 230-213	35	887	–	11	6-12	12-20

Automotive Product Brochures



Lubricants for construction companies



XTL for commercial vehicles



Lubricants for stationary gas engines



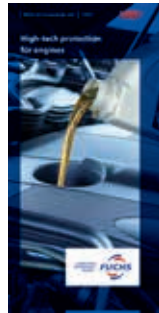
Lubricants for agricultural machinery



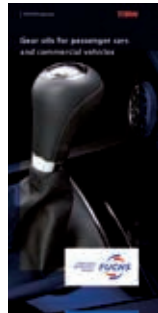
Rapidly biodegradable industrial lubricants – PLANTO



TITAN XTL for passenger cars



Motor oils for passenger cars



Gear oils



Automatic transmission fluids



Antifreeze, brake fluids and service products



XTL-Video for passenger cars



XTL-Video for commercial vehicles



Oils are not all created equal



Automatic transmission fluid flushing

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Then select the type of vehicle and
hereupon make and model.



By selecting the type of your model ...

... an overview of all application areas and their
relevant lubricants and service fluids will appear
(e.g. engine).

Notes

The information contained in this brochure is based on the experience and know-how of FUCHS SCHMIERSTOFFE GMBH in the development and manufacturing of lubricants and represents the current state-of-the-art. The performance of our products can be influenced by a series of factors, especially the specific use, the method of application, the operational environment, component pre-treatment, possible external contamination, etc. For this reason, universally-valid statements about the function of our products are not possible. Our products must not be used in aircrafts/spacecrafts or their components, unless such products are removed before the components are assembled into the aircraft/spacecraft. The information given in this brochure represents general, non-binding guidelines. No warranty expressed or implied is given concerning the properties of the product or its suitability for any given application. We therefore recommend that you consult a FUCHS SCHMIERSTOFFE GMBH application engineer to discuss application conditions and the performance criteria of the products before the product is used. It is the responsibility of the user to test the functional suitability of the product and to use it with the corresponding care. Our products undergo continuous improvement. We therefore retain the right to change our product program, the products, and their manufacturing processes as well as all details in this brochure at any time and without warning, unless otherwise provided in customer-specific agreements. With the publication of this brochure, all previous editions cease to be valid.

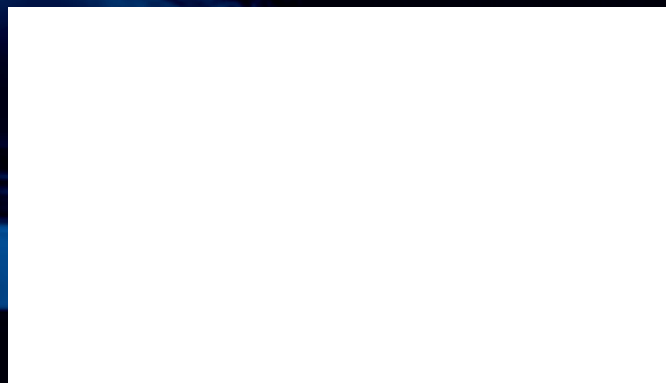
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Innovative lubricants need experienced application engineers

Every lubricant change should be preceded by expert consultation on the application in question. Only then the best lubricant system can be selected. Experienced FUCHS employees will be glad to advise on products for the application in question and also on our full range of lubricants.

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