

# Lubricants Product Program

2/2017



# 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.



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## 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:** ISO/TS 16949:2009, ISO 14001, BS OHSAS 18001, ISO 50001

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

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FUCHS has developed, produced and sold lubricants and related specialties for more than 80 years – for virtually all areas of application and sectors. With over 100,000 customers and 57 companies worldwide, the FUCHS Group is the leading independent supplier of lubricants.

A team of more than 800 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.

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Rapidly Biodegradable Lubricants



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## 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**

## The world of industrial lubricants



### Industrial Oils

Industrial lubricants have an important task in the generation and transmission of energy, in the reduction or transmission of drive forces, in the deployment of machine tools, when generating cooling air or compressed air and for many other applications in production. FUCHS industrial lubricants can make a significant contribution to achieving higher productivity, improving efficiency and saving energy, for example in hydraulic systems, gear units and many other applications. Furthermore, rapidly biodegradable lubricants from FUCHS present a real alternative to hydrocarbon-based lubricants.

**RENOLIN, RENISO,  
RENEP, PLANTO**

### Greases

Lubricating greases are consistent lubricants made up of base oil and a specially chosen thickener. To increase certain properties, additives are added to the lubricating greases. Lubricating greases are structural elements, especially when used as long-life lubricants for lifetime lubrication. **RENOLIT** industrial lubricating greases are a balanced and complete package offering the ideal technical and economical solution in the largest possible number of lubricating grease applications in industry.

**RENOLIT, PLANTO**

### Cutting Fluids

Today, a modern cutting fluid is subjected to a variety of demands. Cooling lubricants for metalworking processes must be effective, economical and free from ingredients that are harmful to health and the environment. In process chains downstream of metalworking, customized cleaning agent solutions and process-compatible and reliable corrosion preventatives play a decisive role when it comes to production reliability and product quality. That's why optimally matched lubricant concepts are important – because all process steps must be taken into account. With its comprehensive range of lubricants and its many years of application experience, FUCHS understands the processes of its customers like no other lubricant manufacturer.

**ECOCOOL, ECOCUT**



### Quenching Products

Fluids are highly important in the area of heat treatment in particular: the required microstructure compositions and degrees of solidity can only be achieved with the right quenching medium. An altered quenching characteristic has a direct effect on the hardened microstructure, on the properties of the material and thereby also on its later deployment. Place your trust in a partner that understands the full heat treatment process, that uses that knowledge to advise you and provides you with system solutions – to your benefit.

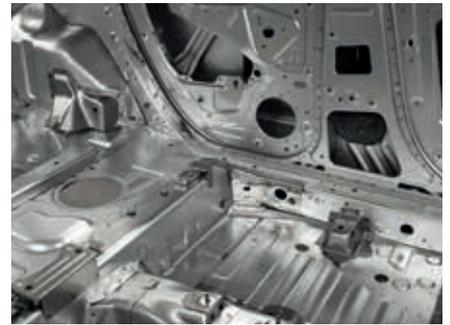
**THERMISOL**



### Cleaner

When manufacturing metal products, all materials that have a negative impact on the subsequent production steps or disrupt the later use of the metallic object must be removed from the surfaces. In addition to an extensive consulting, FUCHS offers everything from a single source. Perfectly matched products together with a comprehensive spectrum of industrial cleaners ensure a high level of process safety by avoiding product incompatibility as well as delivering excellent performance in virtually all cleaning processes.

**RENOCLEAN**



### Forming Lubricants Corrosion Protection

Corrosion protection measures must be optimally compatible with upstream process steps and the products used there. Our recommendation: the compatible **ANTICORIT** corrosion protection products. A wide range of film types is available, from oily to vaseline-type or waxy films. If no film is desired, we solve your corrosion protection problems with our complete VCI range comprising papers, foils, tablets, foams and many other special solutions.

**RENOFORM  
ANTICORIT**

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**XTL**<sup>®</sup>  
TECHNOLOGY

## Ground-breaking XTL<sup>®</sup>-Technology.

While starting, engine oils with XTL<sup>®</sup>-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.



## Engine Oils

**TITAN**


Brand name	Description	Specifications	Approvals	FUCHS Recommendations
<b>Engine Oils for Passenger Cars</b>				
<b>TITAN GT1 EVO SAE 0W-20</b>  	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 <sub>2</sub> emissions. Excellent cold starting behaviour, very fast oil circulation and outstanding performance reserves.	ACEA A1/B1	BMW LONGLIFE-14 FE+ JAGUAR LAND ROVER STJLR.51.5122	–
<b>TITAN GT1 PRO V SAE 0W-20</b>  	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 <sub>2</sub> emissions. Excellent cold starting behaviour, very fast oil circulation and outstanding performance reserves.	ACEA A1/B1	VOLVO VCC RBS0-2AE	–
<b>TITAN GT1 LONGLIFE IV SAE 0W-20</b>  <b>NEW</b>	Premium Performance Engine Oil in ground-breaking viscosity class. Specially designed for modern VW vehicles, for extreme fuel-economy characteristics and reduced CO <sub>2</sub> emissions. Excellent cold starting behaviour, very fast oil circulation and outstanding performance reserves.	ACEA A1/B1	VW 508 00/509 00	PORSCHE C20
<b>TITAN GT1 SAE 0W-20</b>  	Premium Performance Engine Oil with new XTL®-Technology in path-breaking viscosity class and globally unique Zinc-free Additive Technology, for high performance cars with gasoline and diesel engines. Specially designed for sportive driving and maximum power output. Extreme fuel-economy characteristics. Excellent cold starting behaviour. Outstanding performance reserves.	–	–	ACEA C2 API SL ILSAC GF-4

## Engine Oils

Brand name	Description	Specifications	Approvals	FUCHS Recommendations
<b>Engine Oils for Passenger Cars</b>				
<b>TITAN GT1 LL-12 FE SAE 0W-30</b>  	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	–
<b>TITAN GT1 SAE 0W-30</b>	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
<b>TITAN GT1 PRO FLEX SAE 5W-30</b>  	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, Mercedes-Benz and Opel vehicles with exhaust after treatment and turbocharger.	ACEA C3 API SN/SM	BMW LONGLIFE-04 dexos2™ (GB2C0209075) MB-APPROVAL 229.51 MB-APPROVAL 229.52 VW 502 00/505 00/505 01	FIAT 9.55535-S3 GM-LL-A-025 GM-LL-B-025
<b>TITAN GT1 PRO C-3 SAE 5W-30</b>  	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
<b>TITAN GT1 PRO 229.6 SAE 5W-30</b>   <b>NEW</b>	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	–
<b>TITAN GT1 PRO C-1 SAE 5W-30</b>	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.	ACEA C1	JAGUAR LAND ROVER STJLR.03.5005	JASO DL-1 FORD WSS-M2C934-B
<b>TITAN GT1 PRO C-2 SAE 5W-30</b>	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 API SN/SM	PSA B71 2290	API CF FIAT 9.55535-S1 IVECO 18-1811 CLASSE SC1
<b>TITAN GT1 PRO C-4 SAE 5W-30</b>	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.	ACEA C4	MB-APPROVAL 226.51 RENAULT RN0720	–

**TITAN**

Brand name	Description	Specifications	Approvals	FUCHS Recommendations
<b>Engine Oils for Passenger Cars</b>				
<b>TITAN GT1 SAE 5W-40</b> 	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	<b>BMW LONGLIFE-04 dexos2™ (D20311HE075)</b> 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
<b>TITAN Supersyn LONGLIFE PLUS SAE 0W-30</b>	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	ACEA A5/B5 BMW LONGLIFE-01 FE
<b>TITAN Supersyn LONGLIFE SAE 0W-30</b>	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
<b>TITAN Supersyn LONGLIFE SAE 0W-40</b>	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
<b>TITAN Supersyn LONGLIFE SAE 5W-40</b>	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 RENAULT RN0700/ RN0710 VW 502 00/505 00	API CF GM-LL-B-025 PSA B71 2296
<b>TITAN Supersyn FE SAE 0W-30</b>	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
<b>TITAN Supersyn SAE 5W-30</b>	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
<b>TITAN Supersyn D1 SAE 5W-30</b> <b>NEW</b>	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-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
<b>TITAN Supersyn F Eco-FE SAE 0W-30</b> <b>NEW</b>	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	–	–
<b>TITAN Supersyn F Eco-B SAE 5W-20</b>	Ultra High Performance, extreme fuel-economy engine oil especially developed for Ford EcoBoost gasoline engines. Optimum cold starting and lower oil consumption.	ACEA A1/B1 <b>ACEA C5</b> API SN FORD WSS-M2C948-B	JAGUAR LAND ROVER STJLR.03.5004	CHRYSLER MS 6395 FORD WSS-M2C925-A FORD WSS-M2C925-B

## Engine Oils

Brand name	Description	Specifications	Approvals	FUCHS Recommendations
<b>Engine Oils for Passenger Cars</b>				
<b>TITAN Supersyn F Eco-DT SAE 5W-30</b>	Ultra High Performance, extreme fuel-economy engine oil especially suitable for Ford DuraTorq-Diesel engines. Optimum cold starting and lower oil consumption.	ACEA A1/B1 ACEA A5/B5 API SL FORD WSS-M2C913-C FORD WSS-M2C913-D	JAGUAR LAND ROVER STJLR.03.5003	API CF CHRYSLER MS 6395 FORD WSS-M2C913-A FORD WSS-M2C913-B IVECO 18-1811 CLASSE S1/S2 JAGUAR M2C913-B RENAULT RN0700
<b>TITAN Supersyn SAE 5W-40</b>	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
<b>TITAN Supersyn SAE 5W-50</b>	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
<b>TITAN Supersyn SAE 10W-60</b>	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
<b>TITAN SYN MC SAE 10W-40</b>	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 502 00/505 00	API CF FIAT 9.55535-D2/G2
<b>TITAN SYN SN SAE 0W-20</b>	Super High Performance, fuel-economy engine oil for a variety of gasoline engines in passenger cars. Good cold starting behaviour and low oil consumption.	API SN ILSAC GF-5	–	–
<b>TITAN FORMULA SAE 15W-40</b>	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
<b>Racing Engine Oils</b>				
<b>TITAN RACE SAE 5W-30</b>	Premium Racing Engine Oil for Race cars with Gasoline or Diesel engines. Especially developed for professional use in racing applications. Combines optimum protection with power increase and reduced fuel consumption due to minimized frictional losses.	–	–	ACEA C3
<b>TITAN RACE SAE 10W-60</b>	Premium Racing Engine Oil for Race cars fuelled with Gasoline or Diesel engines. Especially developed for professional use in racing applications. Offers optimum protection due to minimized frictional losses and a stable oil film.	–	–	ACEA A3/B3 API SL/CF



Brand name	Description	Specifications	Approvals	FUCHS Recommendations
<b>Engine Oils for Passenger Cars and Commercial Vehicles</b>				
<b>TITAN UNIMAX ULTRA MC SAE 10W-40</b>	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	DETROIT DIESEL 93K215 DEUTZ DQC III-10 MACK EO-M PLUS MAN M 3275-1 MB-APPROVAL 228.3 MB-APPROVAL 229.1 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 20071/2/6/7/8 VW 500 00/501 01/ 505 00
<b>TITAN UNIMAX PLUS MC SAE 10W-40</b>	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 229.1 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
<b>TITAN UNIVERSAL HD SAE 15W-40</b>	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 228.1 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

## Engine Oils



Brand name	Description	Specifications	Approvals	FUCHS Recommendations
<b>Engine Oils for Commercial Vehicles</b>				
<b>TITAN CARGO MAXX SAE 5W-30</b>  	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 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 <b>SCANIA LDF-4</b> VOLVO VDS-4	CUMMINS CES 20081 IVECO 18-1804 CLASSE TLS E6
<b>TITAN CARGO MAXX SAE 10W-40</b>  	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	DETROIT DIESEL 93K218 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 IVECO 18-1804 CLASSE TLS E9 IVECO 18-1809 CLASSE NG2 VOITH-RETARDER „B“

**TITAN**

Brand name	Description	Specifications	Approvals	FUCHS Recommendations
<b>Engine Oils for Commercial Vehicles</b>				
<b>TITAN CARGO SL SAE 5W-30</b>	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 MTU DDC TYPE 3 RENAULT RXD/RLD-2 SCANIA LDF-3 VOLVO VDS-3	CUMMINS CES 20077 IVECO 18-1804 CLASSE TFE SCANIA LDF-2
<b>TITAN CARGO LA SAE 5W-30</b>	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
<b>TITAN CARGO LA SAE 10W-40</b>	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
<b>TITAN CARGO LD3 SAE 10W-40</b>	Ultra High Performance, fuel-economy engine oil for use in SCANIA Euro 6 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
<b>TITAN CARGO MC SAE 10W-40</b>	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
<b>TITAN CARGO SAE 5W-40</b>	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/E7 API CJ-4 CAT ECF-2/ECF-3	DETROIT DIESEL 93K218 DEUTZ DQC II-10 LA FAWDE Q/XC 3135-2007 MACK EO-O PREMIUM PLUS MAN M 3575 MB-APPROVAL 228.31 RENAULT RLD-3 VOLVO VDS-4	CUMMINS CES 20081 DETROIT DIESEL 93K214/93K215
<b>TITAN CARGO SAE 10W-30</b>	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 CJ-4/SN CAT ECF1-a/ ECF-2/ECF-3 JASO DH-2	DEUTZ DQC III-10 LA MACK EO-O PREMIUM PLUS MAN M 3575 MB-APPROVAL 228.31 MTU DDC TYPE 2.1 RENAULT RLD-3 VOLVO VDS-4	CUMMINS CES 20081

## Engine Oils

Brand name	Description	Specifications	Approvals	FUCHS Recommendations
<b>Engine Oils for Commercial Vehicles</b>				
<b>TITAN CARGO SAE 15W-40</b>	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 CJ-4/CI-4 PLUS/ CI-4/SM CAT ECF-2/ECF-3 JASO DH-2	CUMMINS CES 20081 DEUTZ DQC III-10 LA DETROIT DIESEL 93K218 MACK EO-O PREMIUM PLUS MAN M 3575 MB-APPROVAL 228.31 MTU DDC TYPE 2.1 RENAULT RLD-3 VOLVO VDS-4	ALLISON C-4
<b>TITAN TRUCK PLUS SAE 15W-40</b>	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
<b>TITAN TRUCK SAE 15W-40</b>	Super High Performance Engine Oil for a variety of diesel engines. Specially for highly-loaded commercial vehicle diesel engines. Lower oil consumption.	ACEA E7 API CH-4/SJ CAT ECF-1-a	DEUTZ DQC II-10 MACK EO-N MAN M 3275-1 MB-APPROVAL 228.3 MTU DDC TYPE 2 RENAULT RLD/RLD-2 VOLVO VDS-3	CUMMINS CES 20076/7
<b>Engine Oil for Commercial Vehicles with Gas Engines</b>				
<b>TITAN CARGO PRO GAS SAE 10W-40</b>	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	<b>DEUTZ DQC IV-10 LA</b> MAN M 3271-3 MAN M 3477 MB-APPROVAL 228.51	MACK EO-N RENAULT RLD-2 VOLVO VDS-3

**TITAN**

Brand name	Description	Specifications	Approvals	FUCHS Recommendations
<b>Railroad Engine Oil</b>				
<b>TITAN RAILGEN 13 SAE 40</b>	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
<b>Monograde Engine Oils</b>				
<b>TITAN UNIVERSAL HD SAE 10W</b>	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 MB-APPROVAL 228.0 ZF TE-ML 03B (ZF002013)	ACEA E2 API CF-4/SG MIL-L-2104 D ALLISON C-4 CAT TO-2 ZF TE-ML 02C
<b>TITAN UNIVERSAL HD SAE 20W-20</b>	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 228.0 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 ZF TE-ML 02C
<b>TITAN UNIVERSAL HD SAE 30</b>	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 228.2 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 ZF TE-ML 02C
<b>TITAN UNIVERSAL HD SAE 40</b>	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 228.2 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 ZF TE-ML 02C

## Engine Oils

Brand name	Description	Specifications	Approvals	FUCHS Recommendations
<b>Monograde Engine Oils</b>				
<b>TITAN UNIVERSAL HD SAE 50</b>	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 MB-APPROVAL 228.0	ACEA E2 API CF-4/SG MIL-L-2104 D ALLISON C-4 CAT TO-2 ZF TE-ML 02C
<b>TITAN UNIVERSAL HD SAE 30 MTU</b>	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	–

**TITAN**

Brand name	Description	Specifications	Approvals	FUCHS Recommendations
<b>Gas Engine Oils for Stationary Gas Engines</b>				
<b>TITAN GANYMET ULTRA</b>	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	–
<b>TITAN GANYMET PLUS</b>	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	–
<b>TITAN GANYMET PLUS LA</b>	„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
<b>TITAN GANYMET PRO MA</b>	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)

## Engine Oils

Brand name	Description	Specifications	Approvals	FUCHS Recommendations
<b>Gas Engine Oils for Stationary Gas Engines</b>				
<b>TITAN GANYMET PRO LA</b>	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
<b>TITAN GANYMET</b>	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	–
<b>TITAN GANYMET LA</b>	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

**TITAN**

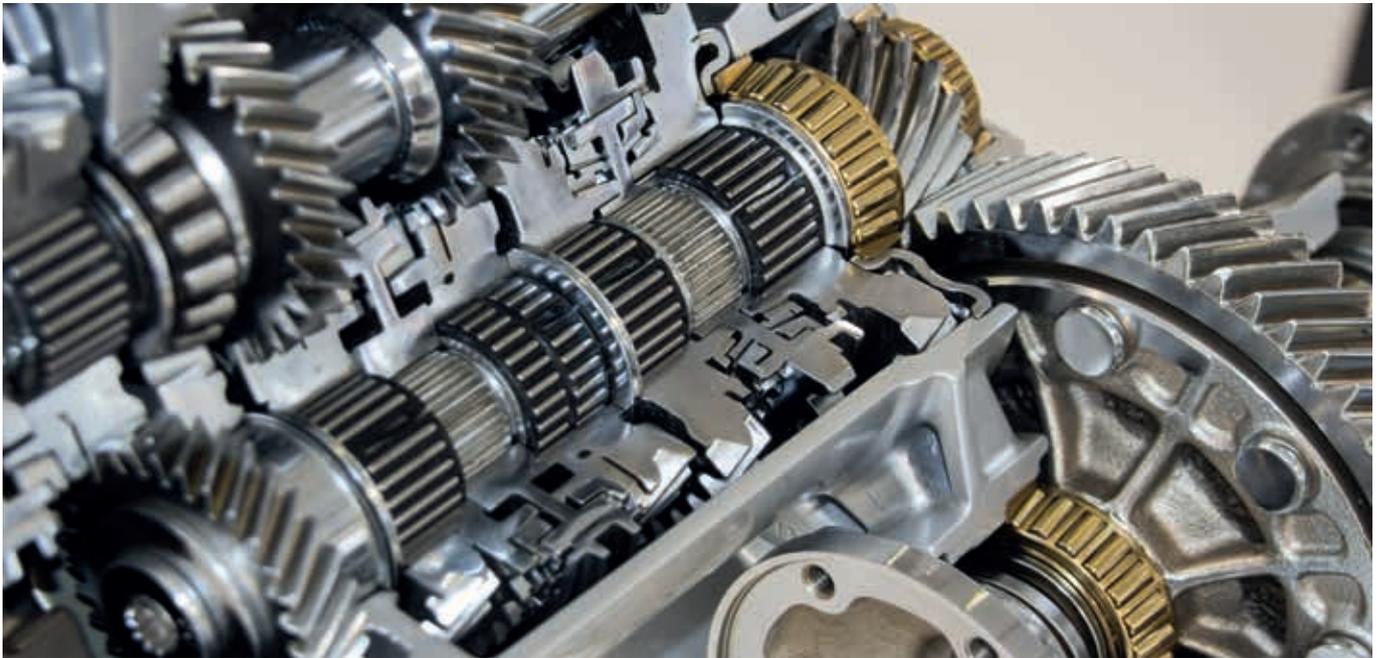
Brand name	Description	Specifications	Approvals	FUCHS Recommendations
<b>4-stroke MARINE Engine Oil</b>				
<b>TITAN MARINE FC-W SAE 10W-30</b>	Super High Performance Engine Oil for marine leisure 4-stroke gasoline engines, in accordance with the latest requirements of NMMA.	–	NMMA FC-W	BOMBARDIER EVINRUDE HONDA JOHNSON MERCURY SEADOO SUZUKI YAMAHA
<b>2-stroke MARINE Engine Oil</b>				
<b>TITAN MARINE TC-W 3</b>	Ultra High Performance Engine Oil for marine leisure 2-stroke engines, in accordance with the latest requirements of NMMA.	–	NMMA TC-W3	BOMBARDIER EVINRUDE JOHNSON KAWASAKI MARINER MERCURY SEADOO SUZUKI TOHATSU YAMAHA

## Engine Oils

**TITAN**


Brand name	Description	Specifications	Approvals	FUCHS Recommendations
<b>2-stroke Engine Oils</b>				
<b>TITAN 2T 100S</b>	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
<b>TITAN 2T S</b>	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	–	–
<b>TITAN 2T M</b>	High Performance two-stroke engine oil. Mixes rapidly. Suitable for Autolube as well as Premix systems. Product dyeing: blue.	API TC	–	–

## Transmission Fluids

**TITAN**


Brand name	Description	Specifications	Approvals	FUCHS Recommendations
<b>Gear Oils for Passenger Cars</b>				
<b>TITAN SINTOFLUID FE SAE 75W</b>	Premium Performance Manual Transmission Fluid offering increased gearbox 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)
<b>TITAN SINTOFLUID SAE 75W-80</b>	Premium Performance Manual Transmission Fluid for passenger cars. Offering good gearbox 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 7 533 818 BMW 2300 1434 404 BMW 2300 7533 513 BMW 2300 7533 818 FORD WSS-M2C200-C/C2/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)
<b>TITAN SINTOPOID FE SAE 75W-85</b>	Premium Performance fuel-economy passenger car axle fluid offering increased gearbox 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 MB-APPROVAL 239.71 MB-APPROVAL 239.72 ZF TE-ML 18 (ZF002195)	VW TL 521 45-X (G 052 145 A1) VW TL 521 90 (G 052 190 A2/ G 055 190 A2)

**XTL**  
TECHNOLOGY  
**NEW**

## Transmission Fluids

Brand name	Description	Specifications	Approvals	FUCHS Recommendations
<b>Gear Oils for Passenger Cars</b>				
<b>TITAN SINTOPOID SAE 75W-90</b>	Premium Performance Axle Gear Oil for passenger cars, also for high-offset hypoid drives offering good gearbox 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)
<b>TITAN SINTOPOID LS SAE 75W-90</b>	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	–	VW G50/G51
<b>TITAN SINTOPOID LS SAE 75W-140</b>	Premium Performance Gear Oil for axle and transfer gearboxes, formulated with fully-synthetic base oils. Suitable for axle and transfer gearboxes 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
<b>Gear Oils for Passenger Cars and Commercial Vehicles</b>				
<b>TITAN SUPERGEAR MC SAE 80W-90</b>	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 E2 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 NH 520A SDFG OP 1705 STEYR B-101 VOLVO 97310 ZF TE-ML 07, 08
<b>TITAN SUPERGEAR MC SAE 80W-140</b>	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
<b>TITAN SUPERGEAR SAE 80W-90</b>	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
<b>TITAN SUPERGEAR SAE 85W-140</b>	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
<b>TITAN GEAR LS SAE 90</b>	High Performance LS (Limited Slip) hypoid gear oil for axles with or without limited slip differentials.	API GL-5	ZF TE-ML 05C, 12C, 16E, 21C (ZF000651)	MIL-L-2105 D FORD M2C104-A JOHN DEERE JDM J11F NH 520B VOLVO 97310
<b>TITAN GEAR MP SAE 80</b>	High Performance Gear Oil for synchronized and non-synchronized manual gearboxes 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
<b>TITAN GEAR MP SAE 90</b>	High Performance Gear Oil for synchronized and non-synchronized manual gearboxes 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

**TITAN**

Brand name	Description	Specifications	Approvals	FUCHS Recommendations
<b>Gear Oils for Passenger Cars and Commercial Vehicles</b>				
<b>TITAN GEAR HYP SAE 90</b>	High Performance Gear Oil for highly-stressed differentials in commercial vehicles and passenger cars.	API GL-5	MAN 342 TYPE M1 MB-APPROVAL 235.0 ZF TE-ML 16C, 17B, 19B, 21A (ZF000656)	FORD SR-M2C9102-A JOHN DEERE JDM J11E OPEL 19 42 387 VOLVO 97310 VW TL 727 ZF TE-ML 07, 08
<b>Gear Oils for Commercial Vehicles</b>				
<b>TITAN CYTRAC SL SAE 75W-90</b>	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
<b>TITAN CYTRAC RR SAE 75W-90</b>	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
<b>TITAN CYTRAC FE SYNTH SAE 75W-85</b> <b>NEW</b>	Premium Performance Gear Oil for gear boxes in commercial vehicles, specially for the latest version of Mercedes-Benz CO <sub>2</sub> transmissions, formulated with fully-synthetic base oils. Most fuel efficient by improving gearbox efficiency. Suitable for the longest oil change intervals.	API GL-4	MB-APPROVAL 235.16	–
<b>TITAN CYTRAC MB SYNTH SAE 75W-90</b>	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 gearbox efficiency. Suitable for the longest oil change intervals.	API GL-4	MAN 341 TYPE MB MB-APPROVAL 235.11	ZF TE-ML 08
<b>TITAN CYTRAC ULTRA SYNTH SAE 75W-80</b>	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 gearbox efficiency. Suitable for longest oil change intervals.	API GL-4 VOLVO 97307	MAN 341 TYPE Z5 ZF TE-ML 01E, 02E, 16P (ZF001457)	–
<b>TITAN CYTRAC MAN SYNTH SAE 75W-80</b>	Premium Performance Gear Oil for gear boxes in commercial vehicles, specially developed for manual and automatic ZF-gear boxes, formulated with fully-synthetic base oils. Reduces fuel consumption by improving gearbox efficiency. Suitable for the longest oil change intervals and compatible with Carbon-Synchronizers.	API GL-4	MAN 341 TYPE Z4 ZF TE-ML 01L, 02L, 16K (ZF001140)	VOLVO 97307
<b>TITAN CYTRAC LD SAE 75W-80</b>	Ultra High Performance Gear Oil for extended oil change intervals in commercial vehicles fitted with integral intarders or supplementary retarders.	API GL-4	EATON MAN 341 TYPE E3	MAN 341 TYPE Z3 VOLVO 97305 ZF TE-ML 02D, 08

## Transmission Fluids

Brand name	Description	Specifications	Approvals	FUCHS Recommendations
<b>Gear Oils for Commercial Vehicles</b>				
<b>TITAN CYTRAC HSY SAE 75W-90</b>	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
<b>TITAN CYTRAC 235.8 SAE 75W-90</b>	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 especially in DAIMLER commercial vehicle axle drives.	API GL-4/GL-5	DETROIT DIESEL 93K219.01 MB-APPROVAL 235.8	–
<b>TITAN GEAR HYP LD SAE 80W-90</b>	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 <b>SCANIA STO 1:0</b>	DETROIT DIESEL 93K219.02 <b>MAN 341 TYPE GA1</b> 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



Brand name	Description	Specifications	Approvals	FUCHS Recommendations
<b>Multifunctional Gear Oils for Construction Machinery</b>				
<b>TITAN UTTO PRO</b>	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
<b>TITAN UTTO PLUS</b>	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
<b>TITAN UTTO ZF</b>	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
<b>TITAN UTTO TO-4 SAE 10W</b>	Super High Performance multifunctional lubricant for hydraulics in construction machinery.	API GL-4 CAT TO-4 KOMATSU KES 07.868.1	<b>ZF TE-ML 03C (ZF002186)</b>	ALLISON C-4
<b>TITAN UTTO TO-4 SAE 30</b>	Super High Performance multifunctional transmission lubricant for construction machinery.	API GL-4 CAT TO-4 KOMATSU KES 07.868.1	ZF TE-ML 03C, 07F (ZF002185)	ALLISON C-4 ALLISON TES-439
<b>TITAN UTTO TO-4 SAE 50</b>	Super High Performance multifunctional lubricant for final drives in construction machinery.	API GL-4 CAT TO-4 KOMATSU KES 07.868.1	–	–

## Transmission Fluids

**PENTOSIN**


Brand name	Description	Specifications	Approvals	FUCHS Recommendations
<b>Double Clutch Transmission Fluids (DCTF)</b>				
<b>PENTOSIN</b> <b>FFL-52529</b>  <b>XTL</b> <small>TECHNOLOGY</small> <b>NEW</b>	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)	–
<b>PENTOSIN</b> <b>FFL-2</b>	Premium Performance DCTF. Specially developed for VW Double Clutch Transmission with wet clutch.	–	<b>JAC DTF630</b> VW TL 52 182 (G 052 182)	–
<b>PENTOSIN</b> <b>FFL-3</b>	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
<b>PENTOSIN</b> <b>FFL-4</b>	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 McLaren: MP4-12C
<b>PENTOSIN</b> <b>FFL-6</b> <b>NEW</b>	Premium Performance DCTF. Specially developed for BYD Double Clutch Transmission with wet clutch.	–	BYD 6DT35 (Q/BYD-A1909.0058- 2013)	–
<b>PENTOSIN</b> <b>FFL-RACING</b> <b>NEW</b>	Premium Performance DCTF. Specially developed for highly stressed double clutch transmissions.	–	–	NISSAN GT-R (R35)

# Transmission Fluids



Brand name	Description	Specifications	Approvals	FUCHS Recommendations
<b>Automatic Transmission Fluids (ATF)</b>				
<b>TITAN ATF 9134 FE <i>NEW</i></b>	Premium Performance ATF with reduced viscosity, especially developed to further optimize fuel-economy and gearbox efficiency of latest generation Mercedes-Benz 9-speed automatic transmissions. Not downwards compatible with previous MB-ATF-Specifications. Product dyeing: none.	–	MB-APPROVAL 236.17	–
<b>TITAN ATF 7134 FE</b>	Premium Performance ATF with reduced viscosity, especially developed to further optimize fuel-economy and gearbox 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	–
<b>TITAN ATF 6000 SL</b>	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
<b>TITAN ATF 5500 <i>NEW</i></b>	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 <b>MAN 339 TYPE V2</b> MAN 339 TYPE Z3 MAN 339 TYPE Z12 MB-APPROVAL 236.9 <b>VOITH 150.014524.xx</b> ZF TE-ML 04D, 14C, 16M, 20C (ZF001797)	DEXRON III (H) ALLISON TES 295 ALLISON TES 389 MAN 339 TYPE Z4 VOLVO 97341
<b>TITAN ATF 5005</b>	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
<b>TITAN ATF 1 <i>NEW</i></b>	Ultra High Performance ATF especially developed for highly stressed step automatic transmissions in passenger cars as well as in commercial vehicles. Product dyeing: none.	–	<b>VOITH 150.014524.xx</b> 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)

## Transmission Fluids

Brand name	Description	Specifications	Approvals	FUCHS Recommendations
<b>Automatic Transmission Fluids (ATF)</b>				
<b>TITAN ATF 4400</b>	Ultra High Performance ATF specifically formulated for Japanese passenger cars and light commercial vehicles. 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-I HYUNDAI SP III, SP IV ISUZU BESCO ATF -II/ATF -III JATCO 3100 PL085/FWD (N402)/JF506E (K17) JWS 3309/TYP E T-IV KIA SP-IV MAZDA ATF D-III/ATF M-3 MITSUBISHI SP-II/-III NISSAN MATIC C/D//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/WS VW G 052 990/055 025
<b>TITAN ATF 4134</b>	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)	–
<b>TITAN ATF 4000</b>	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
<b>TITAN ATF CVT</b>	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 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 I/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**

Brand name	Description	Specifications	Approvals	FUCHS Recommendations
<b>Automatic Transmission Fluids (ATF)</b>				
<b>TITAN ATF 3353</b>	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
<b>TITAN ATF 3000</b>	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
<b>TITAN ATF 10</b>	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**


Brand name	Description	Specifications	Approvals	FUCHS Recommendations
<b>Central Hydraulic / Power Steering Fluids</b>				
<b>PENTOSIN CHF 115</b>	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
<b>PENTOSIN CHF 202</b>	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
<b>PENTOSIN CHF 5364 B</b> <b>NEW</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	–
<b>PENTOSIN LHM+</b>	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
<b>PENTOSIN PSF</b> <b>NEW</b>	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

# AGRIFARM



Brand name	Description	Specifications	Approvals	FUCHS Recommendations
<b>AGRIFARM STOU Oils</b>				
<b>AGRIFARM STOU MC PRO SAE 10W-40</b>	Ultra High Performance Multifunctional 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
<b>AGRIFARM STOU MC SAE 10W-30</b>	MC-synthesis Super High Performance Multifunctional, Oil (STOU/MFO) for engines, manual gearboxes, 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

## Lubricants for Agricultural Machinery

Brand name	Description	Specifications	Approvals	FUCHS Recommendations
<b>AGRIFARM STOU Oils</b>				
<b>AGRIFARM STOU MC SAE 10W-40</b>	Super High Performance Multifunctional Oil (STOU / MFO) based on MC-base-oil technology for engines, manual gearboxes, 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 M2C134-D, M2C159-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
<b>AGRIFARM STOU SAE 15W-40</b>	High Performance Multifunctional Oil (STOU / MFO) for engines, manual gearboxes, 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 M2C134-D, M2C159-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
<b>AGRIFARM Engine Oils</b>				
<b>AGRIFARM MOT X-LA SAE 10W-40</b> <b>NEW</b>	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
<b>AGRIFARM MOT SAE 10W-40</b>	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

# AGRIFARM

Brand name	Description	Specifications	Approvals	FUCHS Recommendations
<b>AGRIFARM Engine Oils</b>				
<b>AGRIFARM MOT SAE 15W-40</b>	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
<b>AGRIFARM UTTO Oils</b>				
<b>AGRIFARM UTTO VT</b>	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
<b>AGRIFARM UTTO MP</b>	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	<b>ZF TE-ML 03E, 05F, 06K, 17E, 21F (ZF002183)</b>	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
<b>AGRIFARM UTTO LN</b>	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)

# Lubricants for Agricultural Machinery

## AGRIFARM

Brand name	Description	Specifications	Approvals	FUCHS Recommendations
<b>AGRIFARM Gear Oil</b>				
<b>AGRIFARM GEAR LS SAE 90</b>	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
<b>AGRIFARM Milking Machine Oil</b>				
<b>AGRIFARM MILKING MACHINE OIL</b>	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

**Silkolene®**


Brand name	Description	Specifications	Approvals	FUCHS Recommendations
<b>RACE Engine Oils – For professional racers and everybody who rides at the limit</b>				
<b>SILKOLENE PRO 4 PLUS SAE 5W-40</b>	Four-stroke racing engine oil based on synthetic esters. Specially formulated for use in Superbikes, Supersports and production racers.	API SJ/SL	JASO MA2	API SG/SH
<b>SILKOLENE PRO 4 PLUS SAE 10W-50</b>	Four-stroke racing engine oil based on synthetic esters. Specially formulated for use in Superbikes, Supersports and production racers.	API SJ/SL	JASO MA2	API SG/SH
<b>SILKOLENE PRO 4 SAE 10W-40 XP SAE 15W-50 XP SAE 10W-60 XP</b>	Premium Performance 4-Stroke engine oil for all high performance motorcycles with latest XP Technology.	API SM/SN	JASO MA2	–
<b>SILKOLENE PRO KR2</b>	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	–
<b>SILKOLENE PRO 2</b>	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	–
<b>SILKOLENE COMP 2 PLUS</b>	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	–	–

## Motorcycle Lubricants

Brand name	Description	Specifications	Approvals	FUCHS Recommendations
<b>RIDE Engine Oils– For the tourer and street rider</b>				
<b>SILKOLENE COMP 4</b> SAE 10W-40 XP SAE 15W-50 XP SAE 20W-50 XP	Ultra High Performance 4-Stroke engine oil for all high performance motorcycles with latest XP Technology.	API SL	JASO MA2	–
<b>SILKOLENE SUPER 4</b> 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
<b>SILKOLENE SUPER 4</b> SAE 10W-40	MC-synthesis four-stroke engine oil. High-quality standard product offering excellent protection.	API SJ	JASO MA2	–
<b>SILKOLENE SUPER 4</b> SAE 20W-50	MC-synthesis four-stroke engine oil. High-quality standard product offering excellent protection.	–	JASO MA2	API SF/SG
<b>SILKOLENE V-TWIN</b> SAE 20W-50	Mineral four-stroke engine oil. Specially developed for Harley-Davidson and European/ Japanese Metric V-Twins.	API SL	JASO MA2	–
<b>SILKOLENE COMP 2</b>	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	–	–
<b>QUADS ATV Engine Oils – For professionals and fun bikers</b>				
<b>SILKOLENE QUAD ATV</b> SAE 5W-40	Fully-synthetic four-stroke engine oil for highly-stressed Quads and ATVs. Offers first-class quality and reliable protection against wear.	API SN	JASO MA2	–
<b>SILKOLENE QUAD ATV</b> SAE 10W-40	MC-synthesis four-stroke engine oil specially developed for Quads and ATVs. Standard, high-quality product for reliable protection.	API SJ	JASO MA2	API SG/SH
<b>SCOOT Engine Oils – The name says it all</b>				
<b>SILKOLENE SCOOT 4</b> SAE 10W-40	Synthetic four-stroke engine oil for scooters and mopeds. Perfect for high-tech, four-stroke scooters.	API SJ	JASO MA2	API SG/SH
<b>SILKOLENE SCOOT SPORT 2</b>	Synthetic two-stroke engine oil for highly-stressed scooter engines. Suitable for Premix and Autolube systems.	API TC JASO FC/FD ISO-L-EGD	–	–
<b>SILKOLENE SCOOT 2</b>	MC-synthesis two-stroke engine oil for scooters and mopeds. Suitable for Premix and Autolube systems.	API TC JASO FC	–	–
<b>MAINTAIN – Maintenance and protection for your bike</b>				
<b>SILKOLENE PRO SRG 75</b>	Fully-synthetic, ester-based racing gear oil. Excellent protection against wear and easy shifting even at extreme temperatures.	–	–	–
<b>SILKOLENE COMP GEAR OIL</b> SAE 80W-90	Synthetic, high-performance, ester-based gear oil. Particularly recommended when the gearbox contains aluminium components.	API GL-4/GL-3	–	–
<b>SILKOLENE BOA</b> SAE 80W-90	High-performance gear oil for shaft drives and other hypoid, crown wheel and pinion applications.	API GL-5/GL-4	–	–
<b>SILKOLENE RSF</b> 2.5 / 5 / 7.5 / 10 / 15	Fully-synthetic shock-absorber fluids and special fork oils with a high viscosity index in different viscosity ranges. Specially developed for racing.	–	–	–

**Silkolene®**

Brand name	Description	Specifications	Approvals	FUCHS Recommendations
<b>MAINTAIN – Maintenance and protection for your bike</b>				
<b>SILKOLENE SF 20</b>	Fork oils for all types of motorcycle forks. Ensures smooth operation, optimum protection against wear and perfect road-holding.	–	–	–
<b>SILKOLENE PRO CHAIN</b>	Fully-synthetic racing chain lube spray for high-performance road, racing and motocross applications. For all chains with or without O-rings.	–	–	–
<b>SILKOLENE TITANIUM DRI GEL</b>	Advanced chain lubricating gel: Effectively resists fling-off and appears whitish when applied.	–	–	–
<b>SILKOLENE CHAIN LUBE</b>	Synthetic chain lube spray for optimum wear and rust protection. For all motorcycle chains with or without O-rings.	–	–	–
<b>SILKOLENE BRAKE &amp; CHAIN CLEANER</b>	Highly effective cleaner for brakes and drive chains. Effectively removes caked residue.	–	–	–
<b>SILKOLENE PRO COOL</b> <b>NEW</b>	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.	–	–	–
<b>SILKOLENE PRO BOOST</b>	Octane improver to combat pre-ignition and improve acceleration.	–	–	–

## Service Products



Brand name	Description	Specifications	Approvals	FUCHS Recommendations
<b>Antifreeze</b>				
<b>MAINTAIN FRICOFIN V</b>	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)	–
<b>MAINTAIN FRICOFIN DP</b>	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++)
<b>MAINTAIN FRICOFIN DP -35</b>	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 5345 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

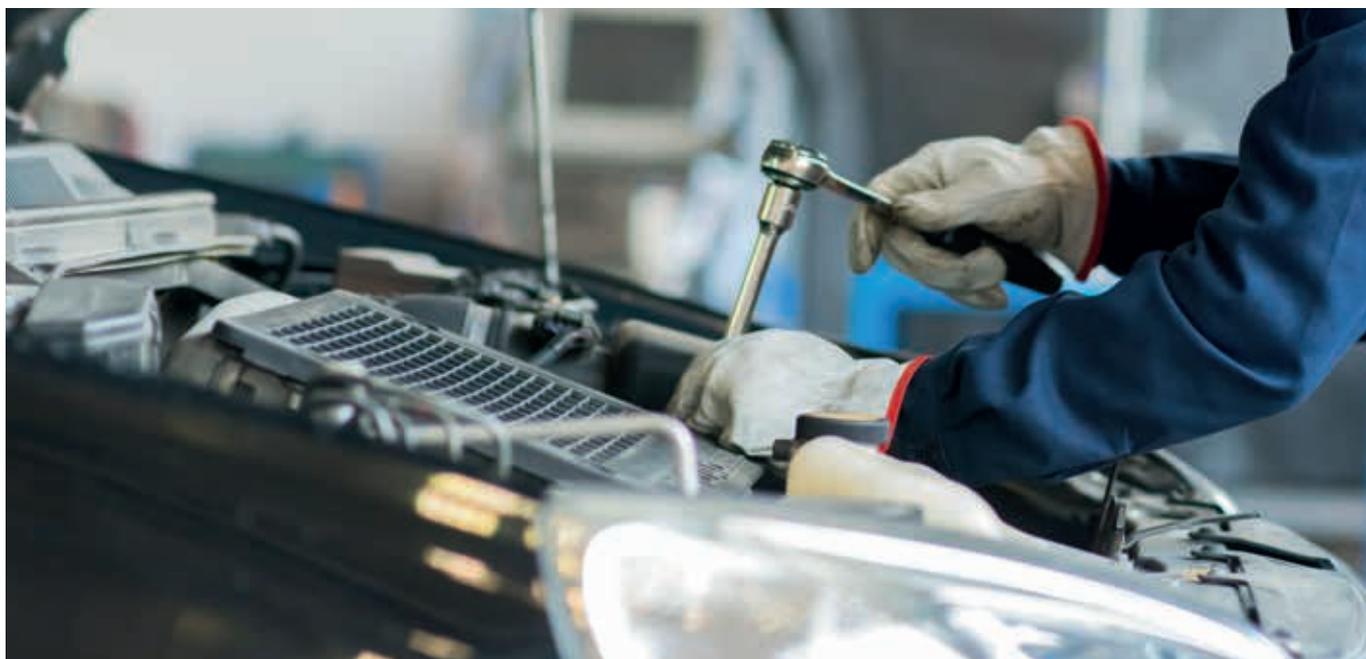
Brand name	Description	Specifications	Approvals	FUCHS Recommendations
<b>Antifreeze</b>				
<b>MAINTAIN FRICOFIN LL</b>	Premium Performance Coolant Additive based on monoethylene glycol. Free from nitrite, amine, phosphate and silicates. Product dyeing: orange.	ASTM D 3306 TYPE I ASTM D 6210 TYPE I-FF 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) HYUNDAI MS 591-08 JASO M325 JIS K2234 JOHN DEERE JDM H5 KOMATSU AF-NAC (ready mix) (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 VAUXHALL GME L1301 VW TL 774-D/F (G12+ / different colour) VOLVO 128 6083/002 (=VOLVO TRUCKS, VOLVO CE, from MY 2005, VOLVO PENTA from MY 05/2010)
<b>MAINTAIN FRICOFIN HDD</b>	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 75E298 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 RO26-170-97 MAN 324 TYPE N NEW HOLLAND WSN-M97B18-D PACCAR CS 0185 TOYOTA Motor Corp. RP 329
<b>MAINTAIN FRICOFIN</b>	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)

# Service Products

# MAINTAIN

Brand name	Description	Specifications	Approvals	FUCHS Recommendations
<b>Antifreeze</b>				
<b>MAINTAIN FRICOFIN -35</b>	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 5345 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 MTL5048 CAT / MWM TR 0199-99-2091 OPEL/GM B 040 0240 PN-C 40007:2000 VOITH TURBO 172.00225010 VW TL 774-C (G11)
<b>MAINTAIN FRICOFIN S</b>	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	–	–
<b>Brake Fluids</b>				
<b>MAINTAIN DOT 5.1</b>	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	–	–
<b>MAINTAIN DOT 4</b>	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
<b>Fuel Additives</b>				
<b>MAINTAIN DIESEL EFFECT</b>	Super High Performance Fuel Additive improving Diesel fuel properties for singular as well as constant treatment.	–	–	–
<b>MAINTAIN GASOLINE PLUS</b>	Super High Performance Fuel Additive designed to clean the entire fuel system of gasoline engines. Recommended for constant use.	–	–	–
<b>MAINTAIN WINTERFIT</b>	Super High Performance Diesel Fuel and Heating Oil Additive to prevent waxing and plugging at low temperatures.	–	–	–
<b>Oil Binder</b>				
<b>MAINTAIN ABSORPEX</b>	Oil Binder Type III R, Chemical Binder	Reported by Hygiene Institut Gelsenkirchen MPL	–	–

## Specialities



Brand name	Description	Specifications	Approvals	FUCHS Recommendations
<b>Hydraulic Oils</b>				
<b>TITAN HYD MR 530 MC</b>	Ultra High Performance multigrade hydraulic oil for construction machinery as well as diverse motor vehicle applications.	DIN 51524-3: HVLDP (Exception: Demulsifying behaviour according to DIN ISO 6614) HVLDP covers SAE 5W to 30 or ISO VG 32 to 68 (100)	–	–
<b>TITAN HYD 1030</b>	Super High Performance multigrade hydraulic oil for general machinery and motor vehicle applications.	HVLP according to DIN 51 524-3 HV according to ISO 11158	DENISON HF 0	CASE MS 1216
<b>Fitting Products</b>				
<b>RENOLIT SI 300 M</b>	Low temperature silicon grease for plastic lubrication and mounting aid of O-rings and sealings.	MSI 2 P-70	VW TL 767 X DBL 6812.10	–
<b>RENOLIT CHUCK PASTE</b>	White special paste for the lubrication of threads, screws and chucks, avoids fretting corrosion, NLGI 2-3.	–	–	–
<b>RENOLIT PASTE PW</b>	Special paste based on calcium sulphonate complex soap and mineral oil as assembly paste to avoid fretting corrosion.	–	–	–
<b>RENOCLEAN 431</b>	Lubricant for the assembly of rubber and elastomers free of solvents and mineral oil.	Adam Opel AG, General Motors	–	–
<b>RENOCLEAN 1895</b>	Mineral oil-free, water-miscible coolant, pressure test and corrosion protection fluid. Low-foaming and surfactant-free, contains amines, borates and perfumes.	–	VW A29 0481	–

## Specialties

Brand name	Description
<b>Cleaner</b>	
<b>FUCHS MULTICLEAN</b>	Well-proven cleaner for multipurpose application in industries and workshops. Rapidly dislodges oil residues.
<b>RENOCLEAN GSO 3001</b>	Spray cleaner for cleaning of transport containers of any kind, but especially from plastics, to remove oil, dust, grease and dirt.
<b>RENOCLEAN GXA 4014</b>	Universal cleaner for maintenance, eg for general cleaning, cleaning of vehicles (car, commercial vehicle, railway, bus etc.), car tarpaulins, tiles, workshop equipment and workshop floors, manually and by machine.
<b>RENOCLEAN KLV</b>	VOC-free, slowly evaporating cold cleaner with a flash point > 90 ° C for de preservation / wax removal of vehicles.
<b>Corrosion Protection Aerosols</b>	
<b>ANTICORIT DFG</b>	Spray and penetrating oil with solid lubricants.
<b>ANTICORIT 5F SPRAY</b>	Surface protection spray.
<b>ANTICORIT RPC SPRAY</b>	Contact and engine protection spray. Excellent rust protection and good lubrication properties. Can be used as a contact spray.
<b>ANTICORIT BW 366 SPRAY</b>	Corrosion preventive wax spray with effective barrier function. Underfloor and cavity protection.
<b>ANTICORIT SYNTH SPRAY</b>	Fully-synthetic corrosion spray with excellent penetrating effect.
<b>ANTICORIT CPX SPRAY</b>	High Performance corrosion preventive for cavity protection under severe conditions.
<b>Grease Aerosols</b>	
<b>RENOLIT UNILOAD</b>	Based on a Heavy Duty Grease with solid lubricants for the lubrication of highly loaded, low speed plain and roller bearings and open gears.
<b>RENOLIT UNIMAX LZ</b>	Based on multipurpose tacky grease for the lubrication of plain and roller bearings, chains, passenger cars and commercial vehicles, construction industry, industrial and agricultural machines.
<b>PLANTO MULTISPRAY S</b>	Based on a rapidly biodegradable EP Multipurpose Grease for the lubrication of plain and roller bearings of construction, agriculture and forestry equipment.
<b>DUOTAC ZAHNRADSPRAY</b>	Based on bitumen-free special lubricant with graphite, lubrication of 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, solid lubricating film up to +300 °C.
<b>RENAX GLEITSPRAY</b>	Assembly aid. Spray grease for hinges, joints and diverse movable small lubrication applications.

## Greases

## RENOLIT



Brand name	Description	Specifications	Approvals
<b>RENOLIT MP</b>	Standard, multipurpose EP grease. Suitable for low temperatures. NLGI 2, -40 °C to +120 °C.	KP 2 K-40 ISO-L-X-DCEB 2	MB-APPROVAL 267.0
<b>RENOLIT MP PLUS</b> <small>Only available for use in FUCHS system grease guns.</small>	High Performance Multipurpose EP grease for plain and roller bearings with excellent adhesion, good corrosion protection and very good ageing stability, NLGI 2, -30 °C to +120 °C.	KP 2 K-30 ISO-L-X-CCEB 2	–
<b>RENOLIT MP 150</b>	Lithium thickened special grease with high ageing resistance, good EP and low temperature properties, for wheel bearings and multipurpose grease for trucks, temperature range from -40 °C up to +120 °C.	KP 2 K-40 ISO-L-X-DCEB 2	MB-APPROVAL 267.1
<b>RENOLIT MP 735</b>	High Performance Multipurpose EP wheel bearing grease. NLGI grade 2, -40 °C to +120 °C.	KP 2 K-40 ISO-L-X-DCEB 2	MAN 283 Li-P 2 VW TL 735 STABILUS 100 15883
<b>RENOLIT LZR 2 H</b>	Highly adhesive, Premium Performance-quality, long-life EP grease based on lithium soap for all plain and roller bearings as well as central lubrication systems in commercial vehicles and general machinery. Excellent corrosion protection even in the presence of saltwater, NLGI 2, -30 °C to +140 °C.	KP 2 N-30 ISO-L-X-CDIB 2	Central lubrication system of BAIER & KÖPPEL LINCOLN and SKF Lubrication Solutions
<b>RENOLIT LZR 000</b>	Semi-fluid grease for central lubrication systems of commercial vehicles and gearboxes in municipal machinery (observe manufacturer's recommendations), NLGI 00-000, -40 °C to +110 °C.	ISO-L-X-DBIB 00-000 GP 00-000 G-40	MAN 283 Li-P 00/000 MB-APPROVAL 264.0 Commercial central lubrication system of LINCOLN and SKF Lubrication Solutions (for trucks)
<b>RENOLIT FLM 2</b> <small>Also available for use in FUCHS system grease guns. Also in NLGI grade 0 available.</small>	EP-grease based on lithium soap and mineral oil, containing molybdenum disulphide (MoS <sub>2</sub> ). For the lubrication of commercial vehicles and machinery. NLGI 2, -30 °C to +140 °C.	KPF 2 N-30 ISO-L-X-CDEB 2	MAN 285 Li-PF 2

# Greases

# RENOLIT

Brand name	Description	Specifications	Approvals
<b>RENOLIT LX-OTP 2</b>	Fully synthetic special grease based on lithium complex thickener, containing solid lubricants, especially for the lubrication of knuckle pins, -40 °C to +160 °C.	–	MAN TUC 8080/00
<b>RENOLIT CA-LZ</b> Also available in spray cans as RENOLIT UNI-MAX LZ.	Long-term, tacky grease based on a special calcium soap with excellent water resistance, for the lubrication of construction and agricultural machinery, NLGI 2, -30 °C to +120 °C.	KP 2 K-30 ISO-L-X-CCHB 2	–
<b>RENOLIT CX-HT 2</b> Also available for use in FUCHS system grease guns. Also in NLGI grade 0 available.	Heavy duty grease based on calcium sulphonate complex soap containing MoS <sub>2</sub> and graphite for the lubrication of highly-stressed plain bearings at high temperatures. Excellent protection against corrosion and wear. Lubrication of open gear systems and gear rims, NLGI 2, -20 °C to +200 °C, also available in spray can as <b>RENOLIT UNILOAD</b> .	–	–
<b>RENOLIT POLAR BLACK</b>	Fully synthetic special grease based on lithium soap for the lubrication of high loaded plain and roller bearings. All-season grease for construction and mining machines, NLGI 1-2, -50 °C to +140 °C.	–	–
<b>RENOLIT DURAPLEX EP 2</b> Also available for use in FUCHS system grease guns. Also in NLGI grade 1 and 3 available.	EP high temperature multipurpose grease for the long-term lubrication of plain and roller bearings, such as vehicle clutch-release bearings, highly-stressed construction machinery bearings, etc., NLGI 2, -30 °C to +160 °C.	–	–
<b>RENOLIT LX-PEP 2</b> Also in NLGI grade 1-2 and 3 available.	Special grease based on lithium complex soaps for long-life applications. Good corrosion protection, thermally and mechanically stable, specially suitable for wheel bearings of cars and trucks, -30 °C to +150 °C.	KP 2 N-30 ISO-L-X-CDEB 2	MAN 284 Li-H 2 MB-APPROVAL 265.1 SCHAEFFLER DB-Kenndatenblatt 873 499 ZF TE-ML 12 VW TL 52147X INTERPRECISE

## Rapidly Biodegradable Lubricants

## PLANTO



Brand name	Description	Specifications	Approvals	FUCHS Recommendations
<b>PLANTO MOT SAE 5W-40</b>	Super High Performance SAE 5W-40 Diesel Engine Oil. Rapidly biodegradable and specially recommended for use with alternative Diesel fuels.	–	–	ACEA E3/B3 API CG-4 KUBOTA SISU ZETOR
<b>PLANTOSYN 3268*</b>	Environmentally friendly, HVI multigrade hydraulic oil with high temperature stability based on fully-saturated, synthetic esters (HEES), rapidly biodegradable according to OECD 301 B >60%. Awarded the European Eco Label.	ISO 15380: HEES DIN 51524-3: HVLP DIN 51519: ISO VG 46	FENDT O&K BAUMASCHINEN ECO-Label	BOSCH REXROTH AG CAT BF-1 KRAMER ALLRAD PALFINGER SAUER DANFOSS TIMBERJACK VALMET / KOMATSU FOREST PONSSE
<b>PLANTOSYN 3268 ECO*</b>	Environmentally friendly, HVI multigrade hydraulic fluid based on partly saturated synthetic esters (HEES), universally applicable, rapidly biodegradable according to OECD 301 B >60%, awarded with the European Eco Label.	DIN 51519: ISO VG 46 ISO 3448: ISO VG 46 DIN 51524-2: HLP DIN 51524-3: HVLP ISO 15380: HEES FENDT: KDM 28/2006	FENDT KDM 28/2006 ECO-Label	–
<b>PLANTOHYD 40 N*</b>	Environmentally friendly, hydraulic and lubricating oil based on natural raw materials with additives to improve oxidation stability and ageing stability. Type HETG acc. to ISO 15380, for mobile and stationary hydraulic equipment. Rapidly biodegradable acc. to OECD 301 B >60%, awarded with the European Eco Label.	ISO 15380: HETG	ECO-Label	–
<b>PLANTO HYTRAC PLUS</b>	Biodegradable Super High Performance Multifunctional Oil (UTTO) for tractor gearboxes with or without wet brakes.	SAE 10W-30 SAE 80	–	Several makes of tractors
<b>PLANTOLUBE KS 32-N</b>	Biodegradable rapeseed oil-based tacky lubricant for chains and other total-loss applications.	–	–	–



## Rapidly Biodegradable Lubricants

## PLANTO

Brand name	Description	Specifications	Approvals	FUCHS Recommendations
<b>PLANTO TAC 68*</b>	Biodegradable Super High Performance Chain Saw Oil based on rapeseed. For professional use in chain saws. Excellent lubricity and good ageing stability. Awarded the European Eco Label.	–	KWF ECO-Label	DOLMAR HUSQVARNA SOLO STIHL
<b>PLANTOGEL ECO 2 N*</b> Also available in NLGI grade 1.	Environmentally friendly, readily biodegradable total loss lubricating grease based on calcium soap and rape seed oil. Awarded with the EU-Ecolabel, NLGI 2, -20 °C to +70 °C.	–	ECO-Label	–
<b>PLANTOGEL ECO 2 S*</b>	Environmentally friendly, readily biodegradable EP-grease based on lithium soap and synthetic esters for the lubrication of plain and roller bearings. Good pumpability in central lubrication systems, awarded with the EU-Ecolabel, NLGI 2, -40 °C to +120 °C.	–	ECO-Label	–

\*



## Real competence.

The majority of all manufacturing technologies only function as planned with specially designed lubricant solutions. Operators, machines, tools, components as well as storage and transport times all have to be considered. Apart from increased productivity, health and safety at work are decisive parameters.

FUCHS also makes an important contribution to higher productivity and safety at work in the field of machining. Our research development experts have created water-miscible products which allow successful and efficient machining in the skin-compatible pH-range. Furthermore, our new corrosion protection concepts offer individual system solutions.

## Industrial Lubricants

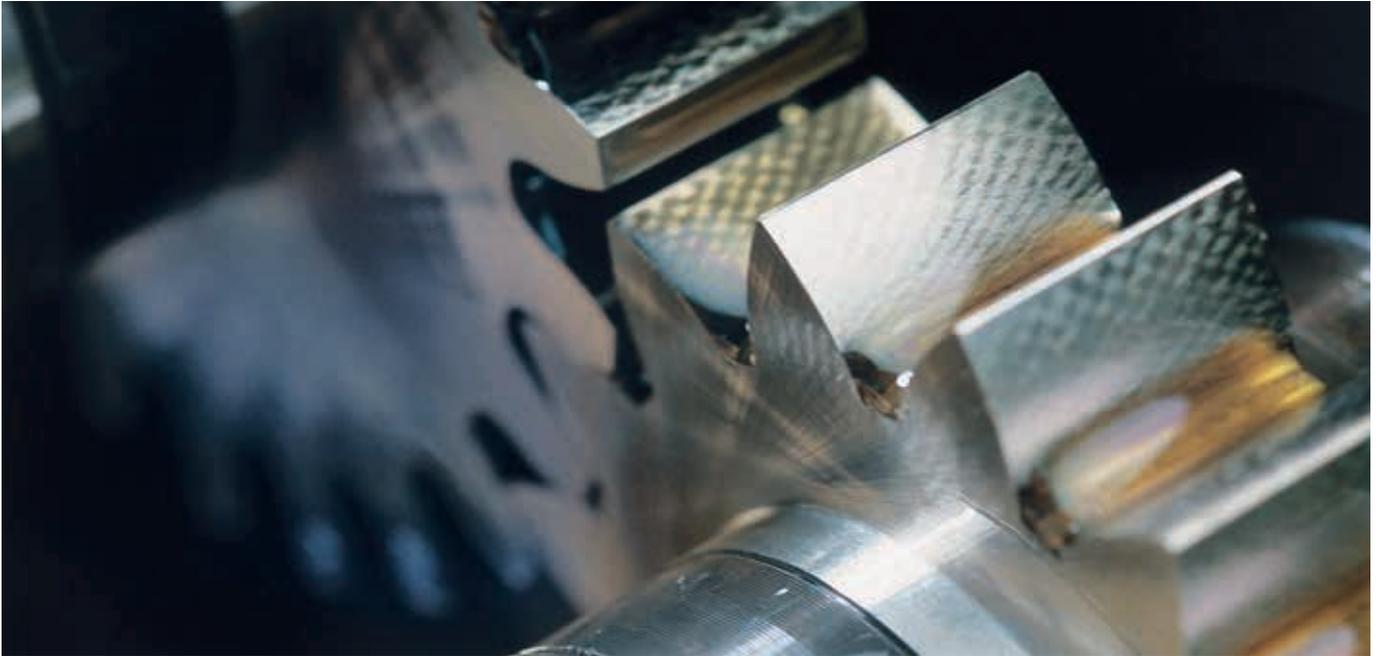


Brand name	Description
<b>Hydraulic Oils</b>	
<b>RENOLIN DTA-SERIES</b>	Hydraulic and general lubricating oils (machine oils) offering good oxidation resistance and corrosion protection. CL lubricating oils according to DIN 51517-2 and HL hydraulic oils according to DIN 51524-1.
<b>RENOLIN B-SERIES</b>	Lubricating and hydraulic oils with additives to improve ageing resistance, corrosion and wear protection, demulsifying. HLP hydraulic oils according to DIN 51524-2 (B HVI series: DIN 51524-3), ISO 11158-HM.
<b>RENOLIN B HP</b>	Hydraulic oils with additives to improve ageing and oxidation stability, additives with zinc to insure the AW/EP wear protection properties; HLP hydraulic oils according to DIN 51524-2. Bosch Rexroth RD 90235 / RDE 90245 approved.
<b>RENOLIN B HP Plus</b>	As RENOLIN B HP, but based on base oil group II. Therefore a higher lifetime is possible. Bosch Rexroth RD 90235 / RDE 90245 approved.
<b>RENOLIN D-SERIES</b>	Lubricating and hydraulic oils with additives to improve ageing resistance, corrosion and wear protection, detergent/dispersant. HLPD hydraulic oils according to DIN 51524-2, ISO 11158-HM.
<b>RENOLIN MR-SERIES</b>	Universal lubricating and hydraulic oils with additives to improve oxidation and thermal resistance. Excellent corrosion protection, detergent/dispersant. Typical problem solver. HLPD hydraulic oils according to DIN 51524-2, ISO 11158-HM.
<b>RENOLIN MR MC-SERIES</b>	Universal, MC-based lubricating and hydraulic oils. Viscosity Index VI $\geq 150$ . Shear stable. Detergent/dispersant. Allows oil changes intervals to be extended. Typical problem solver in machine tools. HVLPD according to DIN 51524-3, ISO 11158-HV.
<b>RENOLIN ZAF B HT-SERIES</b>	Zinc- and ash-free hydraulic and circulating oils of the latest generation excellent ageing resistance, high corrosion protection, demulsifying. Fulfils and surpasses the specs according to DIN 51524-2 HLP, ISO 11158-HM and DIN 515173 CLP.
<b>RENOLIN ZAF D HT-SERIES</b>	Universal zinc- and ash-free hydraulic fluids and industry gear oils, excellent ageing stability and high wear protection. Provide high deterging and dispersing properties. Pass and surpass the requirements according to DIN 51524-2: HLPD, ISO 6743-4: HM, DIN 51517-3: CLP, ISO 6743-6: CKC, DBL 6713-HLP (Exception: dispersant properties), Brugger $>30N/mm^2$ .
<b>RENOLIN ZAF D 46 HT PLUS</b>	Universal zinc- and ash-free detergent type of hydraulic fluid and industrial gear oil, excellent ageing stability, very high wear protection, latest base oil generation, hydrotreated base oils and low sulphur content. Pass and surpass the requirements according to DIN 51524-2: HLPD, ISO 6743-4: HM, DIN 51517-3: CLP, ISO 6743-6: CKC, DBL 6713-HLPD, Brugger $>30N/mm^2$ .
<b>RENOLIN ZAF 46 D WHITE</b>	Zinc- and ash-free detergent type of EP-lubricating and hydraulic fluid. Due to selected, bright base oils and matched additives the danger of discolorations during formation of oil films is inhibited. Pass and surpass the requirements according to DIN 51524-2: HLP (Exception: dispersant properties), HLPD, ISO 6743-4: HM.

# RENOLIN

Brand name	Description
<b>Hydraulic Oils</b>	
<b>RENOLIN ZAF MC-SERIES</b>	Shear-stable, zinc- and ash-free hydraulic and general lubricating oils with a VI $\geq 150$ . Demulsifying. Formulated with MC base oils. Oil change intervals can be extended. Grades can be rationalised. Fulfil and surpass HVLP hydraulic oil specs according to DIN 51524-3, ISO 11158-HM.
<b>RENOLIN ZAF DT-SERIES</b>	Special zinc- and ash-free hydraulic oils which fulfil Mercedes-Benz specification 6721. Powerful detergent/dispersant properties, particularly good wear protection in boundary friction conditions (Brugger: 50 N/mm <sup>2</sup> ). HLPD hydraulic oils according to DIN 51524-2, ISO 11158-HV.
<b>RENOLIN MWB-SERIES</b>	Special hydraulic oils with additives to improve ageing stability. Excellent corrosion protection and sludge-transportation properties. Contain a large proportion of EP and anti-wear agents. Zincfree. Good protection in boundary friction conditions. Good Brugger values ( $> 50$ N/mm <sup>2</sup> ). HLPD hydraulic oils according to DIN 51524-2, ISO 11158-HM approved by SCHULER.
<b>RENOLIN LIFT-SERIES</b>	Special hydraulic oils for elevators and hydraulic conveyors. Reliably combat stick-slip, especially at high loads and low speeds. HLPD hydraulic oils according to DIN 51524-2, ISO 11158-HM.
<b>RENOLIN XtremeTemp</b>	Special hydraulic oil for low start-up temperatures and wide temperature range based on special semi-synthetic base oils and state-of-the-art additive technology. Excellent shear stability. HVLP hydraulic oils according to DIN 51524-3, ISO 11158-HV.
<b>RENOLIN XtremeTemp PLUS</b>	Like RENOLIN XtremeTemp with additives to reduce stick-slip.
<b>RENOLIN ZAF 15 LT ZAF 32 LT</b>	Zinc- and ash-free hydraulic oil with very high viscosity index, for hydraulic applications at low temperatures. Exceed the requirements according to DIN 51524-3 HVLP.
<b>RENOLIN PG 32/46</b>	Fully-synthetic hydraulic and lubricating oils based on polyglycols with high VI's. Watersoluble. Fulfil and surpass HVLP hydraulic oil specs according to DIN 51524-3. Not miscible or compatible with mineral oil! Exceed ISO 15380 HEPG. VDMA 24 569 recommendations should be observed.
<b>RENOLIN ANTI STICK SLIP</b>	Special hydraulic oil additive combats stick-slip. Reduces friction. Compatible with HLP, HVLP, HLPD and PAO mineral oils.
<b>RENOLIN FST 101</b>	Special hydraulic oil additive designed to simplify the location of hydraulic fluid leaks. Universally compatible with all hydraulic oils (do not use with polyglycol or water containing fluids).
<b>RENOLIN HighPress 46 DLC</b>	High Performance EP hydraulic oil, zinc- and ash-free for Orthinghaus lamellar coupling systems. Excellent detergent and dispersant properties. Fulfils and surpasses HLPD specs according to DIN 51524-2, ISO 11158-HM. High Brugger. Orthinghaus approval (ON 9.2.19).
<b>RENOLIN UNISYN OL</b>	Fully synthetic hydraulic oils based on polyalphaolefines with very good ageing stability, wear protection, good demulsifying properties and viscosity temperature behavior, high VI and excellent air release properties. The products of the RENOLIN UNISYN OL series fulfil the requirements for hydraulic oils HVLP DIN 51524-3.
<b>Hydraulic Oils – Fire-resistant Hydraulic Oils</b>	
<b>HYDROTHERM 46 M</b>	Fire-resistant, Group HFC hydraulic oil according to DIN 51502 and VDMA 24 317. Water glycol fluid. Satisfies the 7th Luxembourg Report. Environmentally harmless, rapidly biodegradable and free of monoethylene glycol. Approved by BOSCH REXROTH for pressures up to 350 bar.
<b>RENOSAFE TURBO 46 DR</b>	Synthetic, fire-resistant, Group HFD-R hydraulic oil according to DIN 51502 and VDMA 24 317. Based on special hydrolytic stable phosphoric acid esters.
<b>PLANTOFLUX AT-S (ISO VG 46, 68)</b>	Synthetic, fire-resistant, Group HFD-U hydraulic oils according to DIN 51502 and VDMA 24 317. Based on carbonic acid esters (free of chlorinated hydrocarbons and phosphoric acid esters). Rapidly biodegradable, Factory Mutual Approval – USA.
<b>RENOSAFE FireProtect 46 / 68</b>	Fire-resistant hydraulic fluid type HFD-U according to DIN 51502 and ISO 12922 based on synthetic saturated esters. Highest thermal and oxidative stability. Rapidly biodegradable hydraulic oil.

## Industrial Lubricants



Brand name	Description
<b>Gear and General Lubricating Oils</b>	
<b>RENOLIN DTA-SERIES</b>	Hydraulic and general lubricating oils with additives to improve ageing stability and corrosion protection. CL lubricating oils according to DIN 51517-2 and HL hydraulic oils according to DIN 51524-1, ISO 12925-1:CKB.
<b>RENOLIN CLP-SERIES</b>	Demulsifying industrial gear oils with good ageing stability and EP performance. RENOLIN CLP oils fulfil and surpass the specifications laid down in ISO 12925-1:CKC, CKD. Excellent protection against micro-pitting. Approved by well-known gear manufacturers.
<b>RENOLIN CLP PLUS-SERIES</b>	Proven, special mineral oil-based gear oils. Friction-reducing and detergent. Outstanding ageing stability. Good protection against micro-pitting. Extended oil change intervals are possible. Approved by well-known gear manufacturers, ISO 12925-1:CKC, CKD.
<b>RENOLIN AWD-SERIES</b>	Special, mineral oil-based gear oils. Friction-reducing and detergent. Outstanding ageing stability. Good protection against micro-pitting. Good Bruggler performance: >70 N/mm <sup>2</sup> . CLP-D gear oils according to ISO 12925-1:CKC, CKD.
<b>RENOLIN CLPF SUPER-SERIES</b>	Special raffinates with good ageing stability containing MoS <sub>2</sub> and synergetic EP additives. Mineral oil-based. For highly-loaded gears especially in unfavourable conditions and for applications subject to intermittent and shock loads. Exceed the requirements of CLPF gear oils according to ISO 12925-1:CKC, CKD.
<b>RENOLIN GEAR VCI-SERIES</b>	Special industrial gear oils of the latest generation based on mineral oil with special corrosion protection properties. Reliable long-term corrosion protection in the oil phase as well as in the vapour phase. Excellent wear protection, high scuffing protection, good compatibility with gear oils. Fulfil resp. surpass the requirements for CLP industrial gear oils acc. to DIN 51517-3: CLP, ISO 6743-6 and ISO 12925-1: CKC / CKD as well as AGMA 9005/E02: EP.
<b>RENOLIN UNISYN GEAR VCI-SERIES</b>	Like RENOLIN GEAR VCI-SERIES based on Polyalphaolefines.
<b>RENOLIN UNISYN CLP-SERIES</b>	Fully-synthetic, PAO-based gear oils with good ageing stability, very high VI and a very low pour point. Excellent protection against micro-pitting. Exceed the requirements of CLP-HC according to ISO 12925-1:CKC, CKD, CKE. Miscible and compatible with mineral oils. Approved by well-known gear manufacturers.
<b>RENOLIN UNISYN XT-SERIES</b>	Fully-synthetic industrial gear lubricants based on polyalphaolefines of the latest generation, very high natural, shear stable viscosity index, excellent low temperature properties. The products are preferably used when increased requirements are set for high and low temperature usage limits. Fulfil resp. surpass the requirements for CLP industrial gear oils acc. to DIN 51517-3: CLP, ISO 6743-6 and ISO 12925-1: CKC, CKD, CKE as well as AGMA 9005/E02: EP. Approved by well-known gear manufacturers.

# RENOLIN

Brand name	Description
<b>Gear and General Lubricating Oils</b>	
<b>RENOLIN PG-SERIES</b>	Fully-synthetic, polyglycol-based gear oils with the best possible ageing stability and EP properties. Excellent low-temperature behaviour, high VI and very low friction coefficients. Excellent protection against micro-pitting. Exceed the requirements of CLP-PG according to ISO 12925-1:CKC, CKD, CKE, CKT. Approved by well-known gear manufacturers. Not miscible or compatible with mineral oils.
<b>RENOLIN MORGEAR-SERIES</b>	Special lubricating and gear oils with good demulsifying properties and „light“ anti-wear additives. For the lubrication of Morgoil bearings in steel and rolling mills. (Meet the requirements of Danieli and SMS).
<b>RENOLIN HighGear-SERIES</b>	Special gear oils with state-of-the-art additive technology based on mineral oil and synergetic working additives (PD – plastic deformation technology). Excellent wear protection performance also under strong frictional stress. Surpasses the requirements of ISO 12925-1:CKC, CKD, CKE.
<b>RENOLIN HighGear Synth-SERIES</b>	Special gear oils with state-of-the-art additive technology based on PAO and synergistically acting Plastic Deformation (PD) additives. Excellent wear protection performance also under strong frictional stress (lifetime extension possible). Surpasses the requirements of ISO 12925-1:CKC, CKD, CKE.
<b>RENOLIN SynGear 220 HT</b>	Fully-synthetic high-temperature EP industrial gear oil based on selected polyglycol (PAG). Excellent wear protection and ageing stability; according to DIN 51517-3: CLP-PG and ISO 6743-6 CKC/CKD/CKT.
<b>RENOFLUID TF 1500</b>	Power transmission for lubrication of VOITH-turbo gears, hydraulic oil for VOITH-turbo clutches, also as low-viscosity high-pressure gear oil for gears particularly with control and joint oil circuit.
<b>Slideway Oils</b>	
<b>RENEP K-SERIES</b>	Solvent raffinates with special additives to reduce stick-slip. Good detergency. Compatible with water-miscible cutting fluids. CGLP slideway oils according to DIN 51502. Detergent/dispersant.
<b>RENEP CGLP-SERIES</b>	Solvent raffinates with lubricity improvers and friction-reducing additives. Good EP performance. Protect against corrosion and combat stick-slip. Advanced formulation. Proven good compatibility with many water-miscible cutting fluids. CGLP slideway oils according to DIN 51502. Demulsifying. These slideway oils are especially suitable for the use with ECOCOOL cutting fluids.
<b>RENEP KN-SERIES</b>	Solvent raffinates with surface-active and friction-reducing additives. Good EP performance and corrosion protection. Combat stick-slip. Excellent compatibility with cutting fluids. CGLP slideway oils according to DIN 51502. Demulsifying. Contain tackiness improvers. These slideway oils are especially suitable for the use with ECOCOOL cutting fluids.
<b>Paper Machine Oils</b>	
<b>RENOLIN PA-SERIES</b>	Paper machine oils, circulating and lubricating oils based on selected mineral oils for use in central lubricating systems in paper machines. Very good wear protection and corrosion protection. High ageing stability. Fulfils and surpasses the requirements for industrial gear oils CLP acc. to DIN 51517-3. (ISO VG 150, 220)
<b>RENOLIN UNISYN CLP PA-SERIES</b>	Fully-synthetic, lubricating and circulating oils of the latest generation based on high performance polyalphaolefins which are successfully in use in big central lubricating systems in papermachines. Synergistically acting additives guarantee high corrosion protection and excellent wear protection of gear sets and bearings. RENOLIN UNISYN CLP PA-SERIES has a high oxidation stability, avoids the formation of sludge and has a high stability at high temperatures. The products can also be used as gear oils CLP HC according to DIN 51517-3. Fulfils and surpasses the specifications of FAG, SKF, Voith and Valmet. (ISO VG 100-320)
<b>RENOLIN NF PRESS 100</b>	Zinc- and ash-free hydraulic oil based on hydrogenated mineral oils for the use in hydraulic presses in paper machines. Exceeds the requirements according to Voith VN108 for hydraulic rolls.
<b>Machine Oils</b>	
<b>RENOLIN AR-SERIES</b>	General lubricating oils for applications with no defined lubricant recommendations. Suitable for temperatures up to +70 °C. Exceed the requirements of L-AN lubricating oils according to DIN 51501.
<b>Cylinder Oils</b>	
<b>RENOLIN CH-SERIES</b>	High-quality, mineral oil-based cylinder oils. Good thermal stability and low coking. Exceed the requirements of Z lubricating oils according to DIN 51510.

# Industrial Lubricants

# RENOLIN

Brand name	Description
<b>Turbine Oils</b>	
<b>RENOLIN ETERNA-SERIES</b>	Turbine oils of the latest generation for lubrication of gas, steam and turbo-compressors (also with gear boxes, FZG ≥ 10). Based on high-quality, hydrocracked base oils. High ageing resistance, excellent protection against sludging. Turbine oils according to DIN 51515 part 1 and part 2 (L-TDP and L-TGP). Approved by SIEMENS and MAN.
<b>RENOLIN ETERNA SGV-SERIES</b>	Turbine oils of the latest generation for lubricants of gas and steam turbine as well as for turbo compressor without gear boxes. Exceeds the requirements of DIN 51515-1 (L-TD), DIN 51515-2 (L-TG) and MAN TURBO AG, Germany gear boxes. Approved by SIEMENS and MAN.
<b>Transformer Oils</b>	
<b>RENOLIN ELTEC</b>	Premium-quality, mineral oil-based insulating oil which can be used in transformers, converters and switching gear.
<b>RENOLIN E 10</b>	High quality, inhibited insulating oil based on naphthenic base oils which can be used in transformers, switches, chocking coils, condensers and converters. Excellent dielectric properties and high oxidation stability. Fulfills the requirements for insulating oils class I according to RWE Power Specification.
<b>RENOLIN E 3</b>	Inhibited switchgear oil based on naphthenic base oils. Especially for the use in outdoor units.
<b>Tacky Oils</b>	
<b>RENOTAC-SERIES</b>	High-quality raffinates with lubricity improvers and anti-wear agents. Good EP performance and adhesion (tackiness). Lubricants for all total-loss applications (plain bearings, slideways, guides etc.).
<b>Heat Transfer Oils</b>	
<b>RENOLIN THERM-SERIES</b>	Special mineral and synthetic hydrocarbon-based oils with excellent thermal stability and high boiling points. Good thermal conductivity. Suitable for inlet temperatures ranging from -20 °C to over +350 °C. RENOLIN THERM 250, RENOLIN THERM 320, RENOLIN THERM 330 S, RENOLIN THERM 380 S.

# Industrial Lubricants

# PLANTO



Brand name	Description
<b>Environmentally Friendly Hydraulic and Lubricating Oils</b>	
<b>PLANTOHYD 40 N*</b>	Environmentally friendly hydraulic and lubricating oils based on natural raw materials with additives to improve oxidation stability and ageing stability. Type HETG acc. to ISO 15380, for mobile and stationary hydraulic equipment. Rapidly biodegradable acc. to OECD 301 B >60%, awarded with the European Eco Label. Change-over recommendations acc. to ISO 15380 should be observed.
<b>PLANTOHYD S-SERIES*</b>	Environmentally friendly lubricating and hydraulic oils based on partly saturated synthetic esters. They can be used universally in the temperature range from - 30 °C to + 90 °C. Rapidly biodegradable acc. to OECD 301 B >60%. Pass and surpass the requirements according ISO 15380 HEES. Change-over recommendations acc. to ISO 15380 should be observed. Awarded with the European Eco Label. ISO VG 15-46 are classified as non water pollutant.
<b>PLANTOLUBE POLAR S-SERIES</b>	Hydraulic oils based on saturated synthetic esters. Environmentally friendly because rapidly biodegradable. Extremely low pour point. Universally applicable at temperatures ranging from -55 °C to +90 °C. Exceed ISO 15380 HEES. ISO 15380 change-over recommendations should be observed.
<b>PLANTOSYN 3268*</b>	Environmentally friendly HVI multigrade hydraulic oil with high temperature stability based on fully-saturated, synthetic esters (HEES). Rapidly biodegradable according to OECD 301 B >60%. Awarded the European environmental seal.
<b>PLANTOSYN HVI-SERIES*</b>	Hydraulic oil based on fully-saturated synthetic esters. Environmentally friendly because rapidly biodegradable. Suitable for all hydraulic systems. Outstanding EP performance. Tested and approved by BOSCH REXROTH (BRUENINGHAUS) in axial-piston pumps and SAUER-SUNDSTRAND. Surpasses ISO 15380 HEES 46. ISO 15380 change-over recommendations should be observed. Awarded the European environmental seal.
<b>Environmentally Friendly Gear and General Lubricating Oils</b>	
<b>PLANTOGEAR S-SERIES*</b>	Rapidly biodegradable and environmentally friendly, high performance gear oils based on saturated synthetic esters. Comply with DIN 51517-3. Exceed ISO 15380 HEES. Changeover recommendations according to ISO 15380 should be observed. Excellent protection against micropitting. Approved by well-known gear manufacturers. Awarded the European environmental seal. (ISO VG 220-680)
<b>PLANTOGEAR HVI-SERIES*</b>	Rapidly biodegradable and environmentally friendly, high performance gear oils based on saturated synthetic esters. Comply with DIN 51517-3. Exceed ISO 15380 HEES. Changeover recommendations according to ISO 15380 should be observed. Excellent protection against micropitting. Awarded the European environmental seal. (ISO VG 100-150)



# Industrial Lubricants

# PLANTO

Brand name	Description
<b>Environmentally Friendly Slideway Oil</b>	
<b>PLANTOLUBE CGLP 68/220 S</b>	Rapidly biodegradable and environmentally friendly slideway oils based on synthetic esters. Good EP and anti-wear performance. Very good friction coefficients. These slideway oils are perfectly matched to PLANTOCUT and PLANTOHYD machine tool lubricants.
<b>Environmentally Friendly Tacky Oils</b>	
<b>PLANTO TAC HV-SERIES</b>	Premium-quality, vegetable oil-based tacky lubricants. Environmentally friendly because rapidly biodegradable. Good viscosity-temperature behaviour, tackiness, wear protection and film stability. Suitable for use as total-loss lubricants on timber sawing grids, joints and guide pins.
<b>PLANTO TAC 68*</b>	Biodegradable Super High Performance Chain Saw Oil based on rapeseed. For professional use in chain saws. Excellent lubricity and good ageing stability. Awarded the European Eco Label.
<b>Environmentally Friendly Mould-release Oils</b>	
<b>PLANTO SCHALUNGSÖL N*</b>	Universal, vegetable oil-based mould-release oil. Rapidly biodegradable acc. to OECD 301 B > 60%. Awarded with the European Eco Label.
<b>PLANTO SCHALUNGSÖL S</b>	Universal, ester-based mould-release oil. Rapidly biodegradable acc. to OECD 301 B > 60%.
<b>Environmentally Friendly Compressor Oil</b>	
<b>PLANTOLUBE SC 46 S</b>	Rapidly biodegradable, high performance oil for screw compressors. Based on saturated synthetic esters. PLANTOLUBE SC 46 S offers excellent ageing stability, good air release properties and low evaporation losses.



# Industrial Lubricants

# RENOLIN



Brand name	Description
<b>Compressor and General Lubricating Oils</b>	
<b>RENOLIN 200-SERIES</b>	Ageing-resistant lubricating oils with good viscosity-temperature behaviour for normally stressed gearboxes, compressors, drive units as well as plain and rolling bearings. C lubricating oils according to DIN 51517-1 and VB lubricating oils according to DIN 51506.
<b>RENOLIN 500-SERIES</b>	Particularly ageing-resistant lubricating oils offering minimal coking. Contain additives to improve corrosion protection and ageing stability. VDL lubricating oils according to DIN 51506. For compressor outlet temperatures up to +220 °C.
<b>RENOLIN DD-SERIES VDL</b>	Lubricating oils for air compressors with lube-injected chambers. Contain additives to increase corrosion protection and ageing-resistance and reduce deposits (detergent-effect). VDL lubricating oils according to DIN 51506.
<b>RENOLIN SC-SERIES SC MC-SERIES</b>	Cooling oils for screw compressors with additives to increase corrosion protection and ageing stability and to reduce deposits. RENOLIN SC MC oils for thermally-stressed compressors. High viscosity index. Low foaming. Allow service intervals to be extended.
<b>RENOLIN COOL +</b>	State-of-the-art high performance screw compressor oil for difficult applications. Outstanding ageing stability and extremely long life.
<b>RENOLIN UNISYN OL-SERIES</b>	Fully-synthetic cooling oils for piston and screw compressors based on polyalphaolefins with excellent oxidation stability, outstanding wear protection, good demulsification and excellent viscosity-temperature behaviour. High viscosity index. Excellent air release. Allow service intervals to be extended. Lubricating oils VDL according to DIN 51506 and synthetic hydraulic oils according to DIN 51524-3.
<b>RENOLIN SE-SERIES</b>	Fully-synthetic air compressor oils based on advanced synthetic ester technology.
<b>RENOLIN VAC 100 F</b>	Vacuum pump lubricant based on highly refined mineral oils. Does not contain any additives. Extremely low evaporation losses. Suitable for high vacuum.
<b>RENOLIN SynAir 46</b>	High performance synthetic air compressor fluid, excellent biodegradability according to OECD 301C > 60%. Excellent thermal and oxidation stability.

## Industrial Lubricants



Brand name	Description
<b>Refrigeration Oils</b>	
<b>RENISO K-SERIES</b>	Highly-refined, naphthenic refrigeration oils for use with R22 and NH <sub>3</sub> (RENISO KM 32 - KS 46 - KC 68 - KES 100).
<b>RENISO WF-SERIES</b>	Special, highly-refined, mineral oil-based refrigeration oils for the lubrication of hermetically sealed refrigeration compressors which use isobutan (R600a) as refrigerant.
<b>RENISO UltraCool 68 UltraCool 100</b>	Fully-synthetic refrigeration oils for NH <sub>3</sub> applications. For low oil carry-over and high thermal stability.
<b>RENISO SYNTH 68</b>	Fully-synthetic, PAO-based refrigeration oil for all NH <sub>3</sub> and CO <sub>2</sub> applications (not miscible with CO <sub>2</sub> ).
<b>RENISO PG 68/GL 68</b>	Fully-synthetic, polyalkylenglycol (PAG)-based, ammonia-miscible refrigeration oils for NH <sub>3</sub> and hydrocarbon refrigerants.
<b>RENISO S/SP-SERIES</b>	Fully-synthetic refrigeration oils based on chemically and thermally stable alkylbenzenes (ISO VG 32-220). For use with R22. RENISO S - also suitable for NH <sub>3</sub> .
<b>RENISO TRITON SE/SEZ-SERIES</b>	Fully-synthetic, ester-based refrigeration oils for fluorinated HFC and HFO refrigerants such as R134a, R404A, R507, R407C, R410A, R1234yf, R1234ze, R448A, R449A, R450A, R513A, etc. Highly-dried.
<b>RENISO C-SERIES</b>	Special, synthetic polyolester (POE)-based refrigeration oils for use with CO <sub>2</sub> as refrigerant. For transcritical and subcritical CO <sub>2</sub> applications. Perfectly miscible with CO <sub>2</sub> .
<b>RENISO ACC 68</b>	Fully synthetic refrigeration oils based on chemically and thermally extremely stable double end-capped PAG fluids with efficient additivation – especially with regard to wear protection. Developed for stationary air-conditioning and heat pump applications with CO <sub>2</sub> as refrigerant.
<b>RENISO PAG 46/100</b>	Fully-synthetic, polyalkylenglycol (PAG)-based refrigeration oils for automotive air conditioning systems using R134a as refrigerant (ISO VG 46; ISO VG 100).
<b>RENISO PAG 1234</b>	Fully-synthetic refrigeration oil based on double-endcapped polyalkylene glycols (PAG). Newly developed for passenger cars air-conditioning (A/C) systems with HFO-1234yf as refrigerant (ISO VG46). Also suitable for R134a.
<b>RENISO ACC 46 ACC HV</b>	Fully synthetic refrigeration oils based on chemical and thermal extremely stable double end-capped PAG fluids with efficient additivation – especially with regard to wear protection. Developed for the use in mobile A/C systems with CO <sub>2</sub> as refrigerant.

# RENISO

Brand name	Description
<b>Lubricants for the Food and the Pharma Industry</b>	
<b>CASSIDA</b>	Special lubricants for the food/pharma industry. For incidental, technical not avoidable contact with food. NSF-H1 approved.
<b>Gasometer sealing oil</b>	
<b>RENOLIN GAS 68 GAS 70 GAS 150</b>	Universal gasometer sealing oil with very good low temperature behaviour, very low pourpoint and anti-stick-slip properties.

## Greases



Brand name	Description
<b>Mineral Oil-based Greases for Plain and Roller Bearings</b>	
<b>RENOLIT CA-LZ</b>	High performance, long-life tacky grease based on a special calcium soap. Excellent corrosion protection as well as resistance to water and saltwater. NLGI 2, -30 °C to +120 °C. Also available in spray can as <b>RENOLIT UNIMAX LZ</b> .
<b>RENOLIT CX-EP-SERIES</b>	Calcium complex soap-based greases for highly-stressed bearings as well as central lubrication systems. Recommended for applications in the chemical, rubber and steel industries as well as for mining and quarrying. NLGI grade 0, 1 and 2, -30 °C to +140 °C.
<b>RENOLIT CXI 2</b>	Calcium sulphonat complex grease with particularly good working stability and corrosion protection, even in the presence of salt water. Excellent EP performance, NLGI 2, -20 °C to +160 °C.
<b>RENOLIT CSX 15</b>	Calcium sulphonate complex heavy duty grease with excellent corrosion protection and good properties, NLGI 1-2, -20 °C to +180 °C.
<b>RENOLIT GP-SERIES</b>	Standard, multipurpose greases based on lithium soap for the general lubricating of machines, NLGI 1, 2 and 3, -30 °C to +160 °C.
<b>RENOLIT MP</b>	Standard, multipurpose EP grease. Suitable for low temperatures. NLGI 2, -40 °C to +120 °C. MB-APPROVAL 267.0.
<b>RENOLIT LZR 2 H</b>	Highly-adhesive, premium-quality, long-life EP grease based on lithium soap for all plain and rolling bearings as well as central lubrication systems in commercial vehicles and general machinery. Excellent corrosion protection even in the presence of salt-water, NLGI 2, -30 °C to +140 °C. Approved for central lubrication systems of SKF Lubrication Solutions, BEKA-MAX and LINCOLN.
<b>RENOLIT H 443-HD 88</b>	Lithium soap-based EP grease with tackiness improvers. Recommended for applications subject to vibration, e.g.unbalanced motors, electric motors, oscillating sieves. Also for damp atmospheres. NLGI 2-3, -30 °C to +140 °C.
<b>RENOLIT FEP-SERIES</b>	EP-multipurpose greases based on lithium soap with good mechanical stability, NLGI 1, 2 and 2-3, -20 °C to +140 °C.
<b>RENOLIT FAP 502</b>	Lithium-/calcium soap-based EP grease with high base oil viscosity for highly loaded plain and roller bearings with low speeds, NLGI 2, -20 °C to +140 °C.
<b>RENOLIT FLM 2</b>	EP-grease based on lithium soap and mineral oil, containing molybdenum disulphide (MoS <sub>2</sub> ) NLGI 2, -30 °C to +140 °C.
<b>RENOLIT FLM 502</b>	EP-grease based on lithium-/calcium soap and high viscous mineral oil, containing molybdenum disulphide (MoS <sub>2</sub> ) for the lubrication of plain and roller bearings under high loads and with low speeds.

# RENOLIT

Brand name	Description
<b>Mineral Oil-based Greases for Plain and Roller Bearings</b>	
<b>RENOLIT DURAPLEX EP-SERIES</b>	EP high temperature multipurpose grease based on lithium complex soaps. Good corrosion protection. For high thermal and mechanical loads. NLGI grade 1, 2 and 3, -30 °C to +160 °C.
<b>RENOLIT LX-PEP-SERIES</b>	Special greases based on lithium complex soap for long-life applications. Good corrosion protection, thermally and mechanically stable, specially suitable for wheel bearings and hub units in cars and trucks, NLGI 1-2, 2 and 3, -30 °C to +150 °C. Approved according to MAN 248 Li-H 2, MB 265.1, SCHAEFFLER, DB-Kenndatenblatt 873 499, ZF TE-ML 12, VW TL 52147X, Interprecise.
<b>RENOLIT PU-FH 300</b>	High temperature grease containing a polyurea-based thickener for low-speed bearings. NLGI 2, -20 °C to +180 °C.
<b>Greases based on Synthetic Fluids for Plain and Roller Bearings</b>	
<b>RENOLIT HLT 2</b>	Fully synthetic, thermally and mechanically stable grease based on lithium soap and PAO. Good elastomer compatibility, NLGI 2, -40 °C to +140 °C.
<b>RENOLIT S 2</b>	Special, ester-based grease for high-speed roller bearings and/or low temperatures. NLGI 2, -60 °C to +120 °C.
<b>RENOLIT JP 1619</b>	Mechanically-stable, low-temperature grease. Also suitable for high-speed bearings. NLGI 1, -50 °C to +120 °C.
<b>RENOLIT GL 1</b>	Low-friction and low-wear special grease with noise-suppressing properties. For all types of plain and roller bearings as well as gearboxes, guide rails, sliding roofs, door brakes, screws, etc., -30 °C to +140 °C. Approvals BMW and OPEL. Also available in spray cans as <b>RENAX GLEITSPRAY</b> .
<b>RENOLIT HI-SPEED 2</b>	Special grease for roller bearings of high speed machine tool and textilmachine spindles, $n \times d_m$ up to 1,4 million mm/min, NLGI 2, -40 °C up to +120 °C.
<b>RENOLIT CX-TOM 15</b>	Calcium sulphonat complex grease with good low temperature properties, NLGI 1-2, -40 °C to +160 °C.
<b>RENOLIT PU-MA 2</b>	Fully synthetic high temperature grease based on a polyurea thickener for the lubrication of plain and roller bearings, e.g. electric motors, hot air blowers, dryers in the paper industry or calander, NLGI 2, -40 °C up to +180 °C.
<b>RENOLIT UNITEMP 2</b>	Fully-synthetic, high-temperature grease. Particularly resistant to ageing, water resistant and work stable. Suitable for a wide range of temperatures between -50 °C and +180 °C.
<b>Mineral Oil-based Semi-fluid Greases</b>	
<b>RENOLIT SO-GF-SERIES</b>	Stringy, sodium soap-based gear greases with good wear protection. -30 °C to +100 °C. Available in the NLGI grades 0 and 00.
<b>RENOLIT LZR 000</b>	Semi-fluid grease for central lubrication systems of commercial vehicles and gearboxes in municipal machinery (observe manufacturer's recommendations), NLGI 00-000, -40 °C to +110 °C.
<b>RENOLIT SF 7-041</b>	Semi-fluid grease for central lubrication systems in machine tools and other machinery, NLGI 000, -30 °C to +120 °C.
<b>RENOLIT DURAPLEX EP 00</b>	Semi-fluid grease based on lithium complex soaps. NLGI 00-000, -30 °C to +140 °C.
<b>Silicone Greases</b>	
<b>RENOLIT SI 300-SERIES</b>	Low temperature silicone greases. Approved by the German Materials Testing Institute for the lubrication of bridge supports (SILICONFETT 300 MITTEL BLQ, MPA tested temperature range -35 to +21°C). NLGI 2 and 3, -70 °C to +160 °C and even +200 °C for short periods.
<b>RENOLIT SI 400-SERIES</b>	Standard silicone greases for household goods and ventilators operating at average ambient temperatures. NLGI 1 and 2, -30 °C to +180 °C.
<b>RENOLIT SI 511-SERIES</b>	High-temperature silicone greases for furnace wagons in the mining and quarrying industries, hot air blowers and drying lines. NLGI 00, 1 and 2, -30 °C to +220 °C and even +250 °C for short periods.
<b>RENOLIT SI 708</b>	Electrically-insulating gel grease. Also suitable as a lubricating and assembly grease. -40 °C up to 200 °C.

## Greases

PLANTO



Brand name	Description
<b>Rapidly Biodegradable Greases for Plain and Roller Bearings</b>	
<b>PLANTOGEL ECO N-SERIES*</b>	Environmentally friendly, readily biodegradable total loss lubricating grease based on calcium soap and rape seed oil. Awarded with the EU-Ecolabel, NLGI 1 and 2, -20 °C to +70 °C.
<b>PLANTOGEL ECO 2 S*</b>	Environmentally friendly, readily biodegradable EP-grease based on lithium soap and synthetic esters for the lubrication of plain and roller bearings. Good pumpability in central lubrication systems, awarded with the EU-Ecolabel, NLGI 2, -40 °C to +120 °C.



# Greases

# RENOLIT

Brand name	Description
<b>Special Greases</b>	
<b>RENOLIT CX-HT-SERIES</b>	Heavy duty grease based on calcium sulphonate complex soap containing MoS <sub>2</sub> and graphite for the lubrication of highly-stressed plain bearings at high temperatures. Excellent protection against corrosion and wear. Lubrication of open gear systems and gear rims, NLGI 2, -20 °C to +200 °C. Also available in NLGI 0. In NLGI grade 2 also available in spray cans as RENOLIT UNILOAD.
<b>RENOLIT CX-TC 1</b>	Paste based on calcium sulphonate complex soap with a high content of graphite for use as thread compound in the offshore and mining industries, NLGI 1, -20 °C to +200 °C (as thread compound to +450 °C).
<b>RENOLIT CHUCK PASTE</b>	White special paste to avoid fretting corrosion of threads and chucks, NLGI 2-3.
<b>RENOLIT PASTE PW</b>	Special paste on calcium sulphonate soap and mineral oil as assembly paste to avoid fretting corrosion.
<b>RENOLIT ST 8-081/2</b>	High-temperature grease for plain and roller bearings in the industrial sector. Approved by STEINMÜLLER for smoke flue gas flaps in power stations. NLGI 2, -20 °C to +260 °C, +280 °C for short periods.
<b>RENOLIT ST-FTM-SERIES</b>	Synthetic high temperature grease based on an organic thickener. Used for the lubrication of ejectors of plastic injection moulding machines and for tire heating press segment lubrication, NLGI 1 and 2, temperature range -20 °C to +250 °C.
<b>DUOTAC ZAHNRADSPRAY</b>	Special, bitumen-free, graphite lubricant for all exposed gears, chains and chainwheels. -20 °C to +120 °C.
<b>RENOLIT AS</b>	Hydrocarbon-resistant, tacky, sealing grease. Is not washed out by mineral oils, gasoline and some chlorinated hydrocarbons. NLGI 1, -20 °C to +140 °C.
<b>RENOLIT FOL 2</b>	Special grease containing PTFE for the lubrication of very low-speed bearing surfaces such as sliding films in the construction industry. NLGI 2, approved by the German Materials Testing Institute. -10 °C to +21°C
<b>RENOLIT TFL 2</b>	Special grease with PTFE especially for slidepairs with and without plastic components. NLGI 2, -40 °C to +140 °C.
<b>RENOLIT EP X1</b>	Heavy duty gear coupling grease (MoS <sub>2</sub> ), NLGI 1, -15 °C to +120 °C.

## Cutting Fluids



Brand name	Description
<b>Boron free, Biocide free, Universal Cutting Fluids</b>	
<b>ECOCOOL AFC 1515 BW</b>	Multifunctional soluble cutting fluid for steel- and aluminium machining. For heavy machining e.g. thread moulding.
<b>Boron free, Biocide free, Water-miscible Cutting Fluids Specially for Aluminium and High-alloy Steels</b>	
<b>ECOCOOL TN 2525-HP BFH</b>	Cutting fluid with EP additives, universally applicable for aluminium, titanium and stainless steel, high pressure stable, low foaming.
<b>ECOCOOL PHH AL 10</b>	Mineral oil-based, high performance cutting fluid for both roughing and fine machining of aluminium and steel. Also for the special aluminium alloys. Excellent lubricating characteristics.
<b>Boron free, Biocide free Cutting Fluid Specially for Cast Iron</b>	
<b>ECOCOOL GRINDSTAR VBF</b>	Microemulsion with a large buffer capacity. Specially formulated for grey cast iron and all common steels. Optimized cleaning and flushing performance. Economical consumption.
<b>ECOCOOL FERROSTAR MBF</b>	EP alloyed, universal cutting fluid particularly for the machining of CGI and high alloyed steel. The product's unique cleaning and flushing performance keeps machines clean. Economical consumption.
<b>Boron free, Biocide free, Water-miscible Cutting Fluids, pH-neutral</b>	
<b>ECOCOOL ALUSTAR BF</b>	Multifunctional cutting fluid for the machining of steel, aluminium and other nonferrous metals. PH-neutral. Low alkaline content and thus skin compatible. Also suitable for special aluminium alloys. MAPAL approved.
<b>Boron free, Water-miscible Cutting Fluids Specially for Magnesium</b>	
<b>ECOCOOL 2516 MG</b>	High-quality cutting fluid with overhanging emulsion stability and special additives for the minimisation of MG deposits and hydrogen formation; Biocide containing.
<b>Boron free, Formaldehyde releaser free, Water-miscible Cutting Fluid Specially for Copper and Brass</b>	
<b>ECOCOOL 2520</b>	High-alloyed, universal cutting fluid for the machining of aluminium alloys, steel and particularly for zinc free and lead free non-ferrous metals. Formaldehyde Depot free. Biocide containing.

# ECOCOOL

Brand name	Description
<b>Boron free, Biocide free, Water-miscible, Full-Synthetic Cutting Fluids</b>	
<b>ECOCOOL S-FC</b>	Fully-synthetic cutting fluid for the machining and grinding of steel and cast iron. Economical consumption, good residue behaviour, good corrosion protection, excellent foam behaviour. GROB listing!
<b>ECOCOOL S-ALU</b>	Fully-synthetic cutting fluid for highest requirements for grinding and machining of aluminium. Economical consumption, good residue behaviour, good corrosion protection, excellent foam behaviour even in demineralized water.
<b>ECOCOOL S-GFC</b>	Fully-synthetic cutting fluid for grinding and machining of cast iron. Good residue behaviour, special corrosion protection for cast iron, excellent foam behaviour.
<b>Boron free, Biocide free, Amine free, Water-miscible Cutting Fluids Specially for Grinding Carbides</b>	
<b>ECOCOOL TOOLSTAR S-CC-1</b>	Fully-synthetic cutting fluid formulated for the grinding of carbides. Prevent cobalt leaching.
<b>Boron free, Biocide free, Water-miscible Cutting Fluids Specially for Drinking Water Pipes</b>	
<b>ECOCOOL GS 2000</b>	Fully-synthetic thread cutting agent for drinking water pipes. Approved by the DVGW (German Institute for Gas and Water).
<b>Emulsion Maintenance and Service Products</b>	
<b>ECOCOOL AKTIV-SERIES</b>	Correction concentrates for water-miscible cutting fluids. Refresher, emulsifier, corrosion inhibitors, EP agents.
<b>ANTISEPT-SERIES</b>	Bactericides and fungicides for the maintenance of water-miscible cutting fluids. Special for ECOCOOL and ECOCOOL S products.
<b>ANTI-FOAM-SERIES</b>	Defoaming agents, perfectly matched for the water-miscible ECOCOOL and ECOCOOL S series of cutting fluids.
<b>GROTANOL® FF 1 N</b>	System cleaner, perfectly matched for the water-miscible ECOCOOL and ECOCOOL S series of cutting fluids. Manufacturer Fa. Schülke&Mayr.
<b>RENOCLEAN FXM 4005</b>	Cleaner for cutting fluids perfectly matched to the water-miscible ECOCOOL and ECOCOOL S series. In combination with the ANTISEPT series, also suitable as system cleaner.

## Cutting Fluids



Brand name	Description
<b>Neat, Chlorine-free Cutting Oils</b>	
<b>ECOCUT 3000-SERIES</b>	Steel machining oils containing a large percentage of additives. These products can also be used for the machining of non-ferrous metals.
<b>ECOCUT HSG</b>	Special grinding oils for flute, deep, gear and tool grinding operations.
<b>ECOCUT HFN-UNI</b>	Special grinding oils for gear, flute and deep grinding operations. Also for machining operations with defined cutting edges.
<b>ECOCUT TOOLSTAR</b>	Special grinding oils for tools, HSS and carbides.
<b>ECOCUT HON/HFN</b>	High performance honing and finishing oils for steel, cast iron and aluminium alloys. Also suitable for bore hole honing.
<b>ECOCUT FT-SERIES</b>	Special neat cutting fluids for grinding and chip removal applications, based on feedstock resulting from Fischer-Tropsch process. Special advantages: very high flash point and low evaporation.
<b>ECOCUT FE/1520</b>	Spark erosion oils. Universally suitable for roughing and precision passes. Neutral odour and free of aromatics.
<b>ECOCUT 500-SERIES</b>	Thread-cutting oils with high EP performance.
<b>ECOCUT 600-SERIES</b>	Deep hole drilling oils, universally applicable for all deep hole drilling processes using gun, ejector or BTA drills.
<b>ECOCUT 700-SERIES</b>	Deep hole drilling oils for chrome-nickel steels. Recommended for all operations on difficult-to-machine chrome-nickel steels.
<b>ECOCUT 800/8000-SERIES</b>	Broaching oils. Special oils for stainless steels, specially for the vertical and horizontal broaching of gear teeth and V-grooves.

## ECOCUT

Brand name	Description
<b>Environmentally Friendly, Neat Cutting Oils</b>	
<b>UNIFLUID 10 UNIFLUID 32</b>	Rapidly biodegradable, ester-based cutting oils. Multifunctional application in machine tools at cutting and hydraulic oils. Suitable for all materials.
<b>PLANTOCUT SR-SERIES</b>	Rapidly biodegradable, ester-based cutting oils. Can be used for all materials.
<b>Minimum Quantity Lubrication (MQL)</b>	
<b>PLANTO MIKRO-SERIES</b>	Minimum Quantity Lubricant (MQL), high EP performance. For all materials. Ester based.
<b>ECOCUT MIKRO-PLUS-SERIES</b>	Minimum Quantity Lubricant (MQL), high EP performance. For all materials. Fatty alcohol based.
<b>Multifunctional Oils</b>	
<b>ECOCUT HFN/LE-SERIES</b>	Universal cutting oils for nonferrous metals, cast iron and steel. Low-misting and low-evaporation. Can also be used as HLP hydraulic oils.
<b>WISURA – Neat Cutting Fluids</b>	
<b>WISURA AK/AKS-SERIES</b>	High quality neat cutting oils for machining and grinding operations.

## Quenching fluids

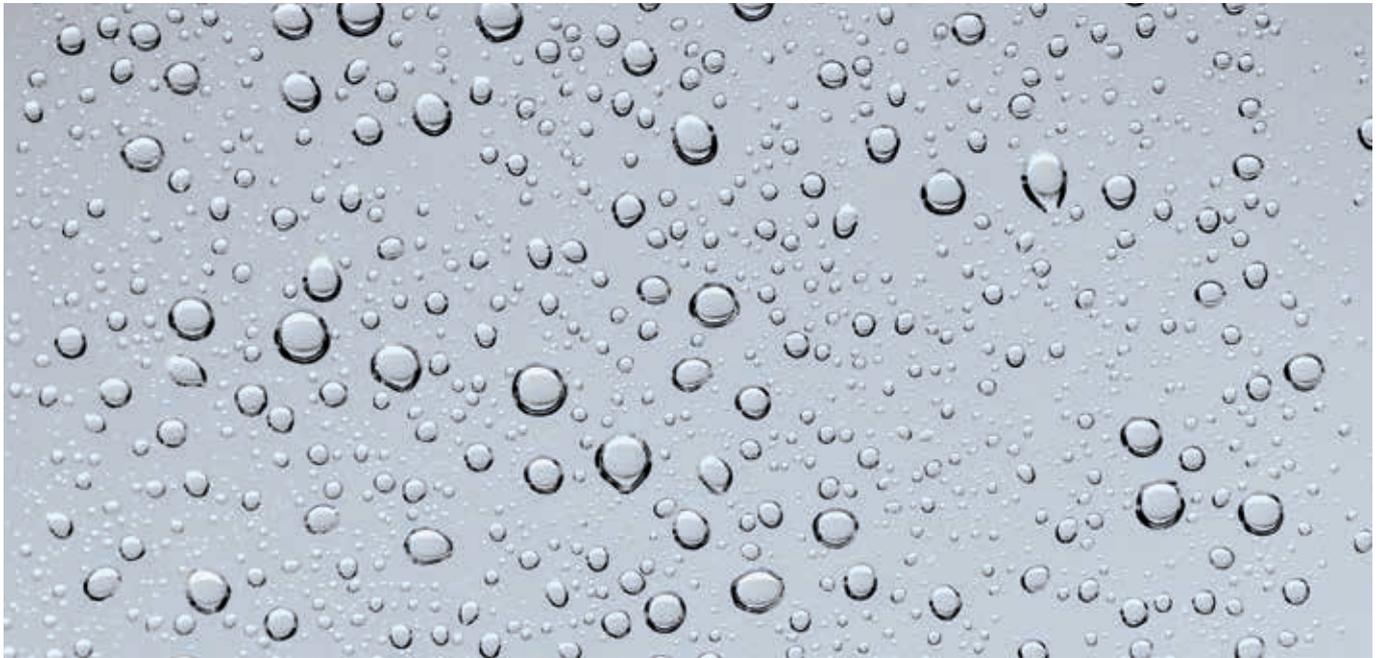
**THERMISOL**



Brand name	Description
<b>Quenching Fluids / Quenchant Concentrates</b>	
<b>THERMISOL QB-SERIES</b>	Bright quenching oils.
<b>THERMISOL QH-SERIES</b>	High Performance quenchants and high performance hardening oils.
<b>THERMISOL QW-SERIES</b>	Hot oil quenchants and annealing oils.
<b>THERMISOL QHY-SERIES</b>	Synthetic, high performance quenching and hardening oils.
<b>THERMISOL QZS-SERIES</b>	Water-miscible quenching fluids.

# Cleaner

# RENOCLEAN



Brand name	Description
<b>Immersion cleaner (aqueous, alkaline)</b>	
<b>RENOCLEAN VR 1862</b>	Builder-free, slightly alkaline immersion and ultrasonic cleaner with very good wetting ability. Suitable for a wide variety of materials. Temperature range from +20 to +80 °C.
<b>RENOCLEAN SPECIAL 2000</b>	Medium alkalinity for universal use (immersion and ultrasonic for workpieces, manually for floors, etc.). Usable at temperatures from +20 °C to +70 °C.
<b>RENOCLEAN VR 1798/2</b>	Medium alkalinity for immersion cleaning with and without ultrasonic. Also suitable for floor cleaning. Temperature range from +20 °C to +60 °C.
<b>RENOCLEAN FDC 4001</b>	Highly alkaline, for immersion in the medical field, with and without ultrasonic. Temperature range from +20 °C to +60 °C.
<b>RENOCLEAN MDT 3002</b>	Emulsifying surfactant for alkaline, neutral and acidic industrial cleaners. Use as emulsifying salt-free immersion and ultrasonic cleaner.
<b>Spray and immersible cleaner (aqueous, alkaline)</b>	
<b>RENOCLEAN MTO 3001</b>	Multi-metal-usable salt-free spray and immersion cleaner, Medium alkalinity, low foaming from above 45 °C, ultrasonic suitable. Temperature range from +30 °C to +80 °C, up to 25 bar.
<b>RENOCLEAN MTA 3003</b>	Multi-metal-usable spray and immersion cleaner, Medium alkalinity, low foaming, ultrasonic suitable. Temperature range from +40 °C to +80 °C, up to 15 bar.
<b>RENOCLEAN MSA 3001</b>	Multi-metal-usable spray and immersion cleaner, Medium alkalinity, ultrasonic suitable. Temperature range from +40 °C to +80 °C, up to 5 bar.
<b>RENOCLEAN MDA 4002</b>	Highly alkaline, silicate free, for ferrous metals and Hot-dip galvanised steel. Temperature range from +20 °C to +80 °C; sprayable up to 4 bar.
<b>RENOCLEAN FSA 4017</b>	Spray and immersion cleaner for ferrous metals, highly alkaline, suitable for ultrasonic. Temperature range from +40 °C to +80 °C, up to 25 bar.
<b>Spray cleaner (aqueous, alkaline)</b>	
<b>RENOCLEAN VR 825</b>	Medium alkaline salt-free neutral-cleaner for spray application. Applicable at temperatures from +40 to +80 °C and up to ~ 8 bar.
<b>RENOCLEAN C 20 K-1427</b>	Medium alkaline salt-free neutral-cleaner for spray application. Applicable at temperatures from +40 to +80 °C and up to ~ 15 bar.

# Cleaner

Brand name	Description
<b>Spray cleaner (aqueous, alkaline)</b>	
<b>RENOCLEAN VR 1021</b>	Medium alkaline, salt-free neutral-cleaner. Applicable at temperatures from +40 °C to +80 °C and up to max. 20 bar.
<b>RENOCLEAN VR 1021 DGI</b>	Medium alkalinity strongly demulsifying, for high pressure application. Temperature range from +10 °C to +80 °C, up to 600 bar.
<b>RENOCLEAN VR 1021 CXV</b>	Medium alkalinity, also for pressure flooding and high pressure deburring. Operating temperature +30 °C to +80 °C, up to 300 bar.
<b>RENOCLEAN MSO 3004</b>	Medium alkalinity, salt free, microfilterable for high pressure deburring. Temperature range from +30 °C to +80 °C, up to 500 bar.
<b>RENOCLEAN WSA 4002</b>	Spray cleaner for heavily soiled ferrous metals, highly alkaline, contains silicate. Temperature range from +30 °C to +70 °C, up to 15 bar.
<b>RENOCLEAN MTO 3002</b>	Medium-alkaline neutral cleaner with very good corrosion protection, also for pressure flooding and high pressure deburring. Operating temperature +20 to +80 °C, up to 500 bar.
<b>RENOCLEAN MSA 3011</b>	Medium alkalinity, also for pressure flooding and high pressure deburring. Operating temperature +20 °C to +80 °C, up to 500 bar.
<b>Modular cleaner (builder and surfactant)</b>	
<b>RENOCLEAN MTA 2001, MTA 4001</b>	Neutral to moderately alkaline builders, phosphate-containing, microfilterable. Surfactant, silicate and borate-free, for immersion, ultrasonic and spray cleaning systems, for almost all surfaces. Temperature range from +40 °C to +80 °C.
<b>RENOCLEAN FTA 4001</b>	Highly alkaline, phosphate-free builder, microfilterable. Surfactant, silicate and borate-free, for immersion, ultrasonic and spray cleaning systems. Can be used for dephosphating and as a pretreatment in electroplating. Temperature range from +20 °C to +85 °C.
<b>RENOCLEAN FTA 4002</b>	Highly alkaline, phosphate-builder, microfilterable. Surfactant, silicate and borate-free, for immersion, ultrasonic and spray cleaning systems. Applicable as a pretreatment in electroplating. Temperature range from +40 °C to +80 °C.
<b>RENOCLEAN ENTFETTER 39</b>	Highly alkaline, silicate and phosphate containing builder, surfactant and borate free, for immersion, ultrasonic and spray applications. Applicable as a pretreatment for electroplating. Operating temperature +20 °C to +80 °C.
<b>RENOCLEAN TENSID 161</b>	Demulsifying surfactant for neutral and alkaline cleaner for immersion applications, suitable as an additive for vibratory finishing.
<b>RENOCLEAN MST 2001</b>	Demulsifying surfactant for acidic, neutral and alkaline cleaner for immersion, ultrasonic and spray applications. Can also be used without Builder. Suitable as an additive for vibratory finishing.
<b>RENOCLEAN VR 1500</b>	Demulsifying surfactant for neutral and alkaline cleaner for spray applications. Can also be used without Builder.
<b>RENOCLEAN MDT 3002</b>	Emulsifying surfactant for alkaline, neutral and acidic industrial cleaners. Useful as an additive for vibratory finishing.
<b>Acidic cleaner</b>	
<b>RENOCLEAN FSO 2010</b>	Neutral cleaner and rust remover primarily for corroded steel and castings, especially suitable after thermal or chemical deburring, for immersion, ultrasonic, pressure flooding and spray applications.
<b>RENOCLEAN FTM 1001</b>	Phosphoric acid cleaner to remove rust from workpieces and corroded equipment, as well as for cleaning encrusted, contaminated cleaning equipment.
<b>Hydrocarbon Cleaner</b>	
<b>RENOCLEAN MTS 7001</b>	Organic Cleaner (mod. Alcohol, FP ~61 °C) with a very high dissolving power for fats and oils, it triggers due to the good dissolving properties, many partially polar residues that can not be solved with conventional hydrocarbon cleaners.
<b>RENOCLEAN MVS 8015</b>	Isoparaffin-based Hydrocarbon cleaner with low flash point of 56 °C (GHS: Flammable) primarily for solvent systems, manual application possible.
<b>RENOCLEAN MVS 8016</b>	Isoparaffin-based Hydrocarbon cleaner with low flash point of 62 °C primarily for solvent systems, manual application possible.
<b>RENOCLEAN KU</b>	Isoparaffin-based universally applicable Hydrocarbon cleaner with flashpoint ~62 °C.

# RENOCLEAN

Brand name	Description
<b>Hydrocarbon Cleaner</b>	
<b>RENOCLEAN KAF</b>	Hydrocarbon cleaner with Flash point ~63 °C for universal use in industry and workshop. Free of aromatics, short drying time.
<b>RENOCLEAN KLV</b>	VOC-free, slowly evaporating Hydrocarbon cleaner with flashpoint > 90 °C for universal application and solvent systems.
<b>RENOCLEAN MVS 9014</b>	VOC-free, slowly evaporating Hydrocarbon cleaner with good corrosion protection, Flash point> 90 °C for universal application and solvent systems.
<b>RENOCLEAN E</b>	Emulsifying Hydrocarbon cleaner with flashpoint ~63 °C for general use, for example in the workshop. Also available as 400 ml Spray.
<b>FUCHS MULTICLEAN</b>	Hydrocarbon cleaner with flashpoint ~62 °C for cleaning of machines, engines, chassis, tarpaulins and other parts of oils, fats, resins, waxes, tar and uncured coatings.
<b>System cleaner for waterbased operating fluids</b>	
<b>GROTANOL® FF 1 N</b>	Microbiocidal system cleaner for circulation systems and production lines. Free of formaldehyde and organically bound chlorine. Almost registered throughout Europe, e.g. BfR_Productnumber: 4121812.
<b>RENOCLEAN FXM 4005</b>	Modular, biocide and fungicide-free system cleaner for the supply systems of water mixed working fluids and coolants. Additivable as needed with biocides and fungicides from our ANTISEPT-Range.
<b>RENOCLEAN SMC / SMC+</b>	Highly effective system cleaners for the supply systems of water mixed working fluids and coolants in central systems or individually filled machines. SMC+ is free from formaldehyde releasers.
<b>Corrosion protection (temporary)</b>	
<b>RENOCLEAN VR 3222</b>	Mildly alkaline, multimetal-suitable, synthetic corrosion protection product for re-preservation of cleaned components made of steel, aluminium and non-ferrous metal. Usable as a builder in modular systems.
<b>RENOCLEAN VR 2729 K</b>	Mineral oil-free synthetic corrosion protection product for re-preservation of cleaned components made of steel and cast iron with additional vapor phase corrosion protection. Usable as a builder in modular systems.
<b>ANTICORIT SKR 3001</b>	Medium-alkaline, mineral oil-free synthetic corrosion protection product for re-preservation of cleaned components made of steel, aluminium and non-ferrous metal. Usable as a builder in modular systems.
<b>RENOCLEAN 1895</b>	Mineral oil-free, water-miscible coolant, pressure test and corrosion protection fluid. Low-foaming and surfactant-free, contains amines, borates and perfumes.
<b>ANTICORIT SKR 42</b>	Mineral oil-free, synthetic hydraulic water additive with additional vapor phase corrosion protection.
<b>ANTICORIT MKR 30</b>	Mild alkaline, sprayable, mineral oil-based cleaning and corrosion protection emulsion, free of boron compounds and monoethanolamine, suitable for the treatment of workpieces made of steel, aluminium and copper-based metals.
<b>Other specialties</b>	
<b>RENOCLEAN GSO 3001</b>	Spray cleaner for cleaning of transport containers of any kind, but especially from plastics, to remove oil, dust, grease and dirt.
<b>RENOCLEAN GTM 3001</b>	Liquid drying accelerator with antistatic effect for faster drying of plastic and metal surfaces.
<b>RENOCLEAN GXA 3004</b>	All-purpose cleaner for maintenance of workshop equipment, workshop walls and workshop floors, manually and by machine.
<b>RENOCLEAN GXA 4014</b>	Universal cleaner for maintenance, eg for general cleaning, cleaning of vehicles (car, commercial vehicle, railway, bus etc.), car tarpaulins, tiles, workshop equipment and workshop floors, manually and by machine.
<b>RENOCLEAN 431</b>	Lubricant for the assembly of rubber and elastomers free of solvents and mineral oil.
<b>RENOCLEAN AKTIV DA</b>	Highly effective demulsifier with additional defoaming effect is equally suitable for mineral oil based and synthetic emulsions and solutions.
<b>RENOCLEAN MXO 3001</b>	Vibratory grinding compound with corrosion protection, suitable for all ferrous metals, other materials after testing. Supports removal of very fine abrasion and prevents smearing of abrasive materials.

# Cleaner

# RENOCLEAN

Brand name	Description
<b>Other specialties</b>	
<b>RENOCLEAN GXM 3001</b>	Silicone oil-free, fast-acting defoamer, especially designed for aqueous RENOCLEAN cleaner.
<b>RENOCLEAN HAND PROTECT, HAND WASH AND HAND CARE</b>	Perfectly matched skin-protection, skin-cleaning and skin-care products. Available in tubes, and in the bag for also deliverable hand dispenser.

## Forming lubricants

## RENOFORM



Brand name	Description
<b>Neat Forming Lubricants</b>	
<b>RENOFORM MZA 08 T</b>	For easy forming, among others as „Spot lubricant“ in body construction.
<b>RENOFORM MCO 3802 SN</b>	„Spot lubricant“ in the body construction, for light to medium forming operations. Meets the requirements of VDA 201-213.
<b>RENOFORM MCO 3028</b>	„Spot lubricant“ in the body construction, for medium forming operations. Meets the requirements of VDA 201-213.
<b>Metalfforming lubricants, residue-poor and mainly self evaporating – non water miscible</b>	
<b>RENOFORM MCO 3028 LV</b>	Very low (ignition residue). On the surface residual film corresponds to RF MCO 3028.

## Corrosion protection



Brand name	Description
<b>Corrosion Protection Oils</b>	
<b>ANTICORIT RPO-SERIES</b>	Modern corrosion protection oils of different viscosities for universal use.
<b>ANTICORIT RP 30 NT</b>	Conventional corrosion protection oil for steel strip surfaces.
<b>ANTICORIT RP 4107-SERIES</b>	Mostly thixotropic corrosion protection oils for all coiled surfaces. Outstanding protection even under extreme climatic conditions. Optimum washability even after ageing. Standard body panel protection oil used by the German steel industry.
<b>Prelubes / Hotmelts</b>	
<b>ANTICORIT PL 3802-SERIES</b>	Prelubes, which combine the excellent corrosion protection properties of the ANTICORIT RP 4107 series with outstanding forming performance on all cold rolled, zinc coated, and phosphated surfaces. Panels coated with prelubes prior to dispatch from steel mills can undergo difficult pressing operations without additional lubrication. VDA approved.
<b>ANTICORIT PLS 100T</b>	Thixotropic 2nd generation prelube with further improved deep drawing properties and excellent corrosion protection. Very good compatibility with down stream processes. Fulfils requirements of VDA 230-213.
<b>ANTICORIT PL 39 SX</b>	Hotmelt product which forms a solid film on metal surfaces. Coils or stacks coated with this product can be pressed without the need of additional lubricants. Provides a stable oil distribution even after stacking and winding. Fully compatible with other Ful-fils the requirements of VDA 230-213.
<b>Dewatering-Fluids</b>	
<b>ANTICORIT DFO-SERIES DFW-SERIES</b>	Dewatering fluids for rapid water displacement. Forming a thin, highly effective corrosion protection film. Also available in a VOC-free formulation acc. 31. BImSchV @ 20°C.
<b>ANTICORIT DF-SERIES</b>	Dewatering fluid without film forming components for stain-free drying. Can also be used for maintaining dewatering fluids in use.
<b>Water-miscible Corrosion Preventives</b>	
<b>ANTICORIT WMC-SERIES</b>	Water-miscible corrosion preventives for the cleaning and interim protection of semifinished components, phosphated parts.

# ANTICORIT

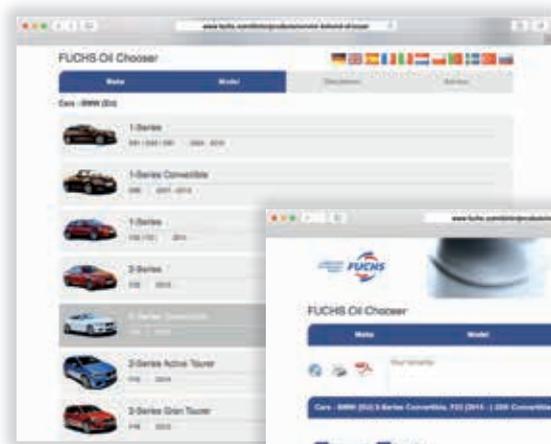
Brand name	Description
<b>Water-soluble Corrosion Preventives</b>	
<b>ANTICORIT S-/SKR-SERIES</b>	Water-soluble, mineral oil-free and low-foaming hydraulic water and coolant additives.
<b>Vaper Phase Corrosion Protection (VCI)</b>	
<b>ANTICORIT VCI UNI S-SERIES</b>	VCI powder, packed into permeable paper bags which are simply placed inside the packaging. Suitable for many kinds of metal and metal-combinations.
<b>ANTICORIT VCI UNI T-SERIES</b>	VCI tablets, easy to use and perfect for intermediate storage. Suitable for many kinds of metal and metal-combinations.
<b>ANTICORIT VCI UNI O-SERIES</b>	Mineral oil with VCI properties. Suitable for many kinds of metal and metal-combinations. Perfect for the corrosion protection of engines, gear boxes, tanks and pumps.
<b>ANTICORIT VCI UNI IP-SERIES</b>	VCI fluids. Perfect combination of liquid VCI with odour-free solvent. Suitable for many kinds of metal and metal-combinations. Cost effective way to add VCI to packaging.
<b>ANTICORIT VCI UNI W-SERIES</b>	VCI fluids for use with water-based products like cleaner or as an additive in cooling systems. Suitable for many kinds of metal and metal-combinations.
<b>Special Corrosion Preventives</b>	
<b>ANTICORIT 04 W 2 / TX 10-A / TX 11 / KL 7 / TX 11 LV / LSB</b>	The complete corrosion protection program for long-term protection of roller bearings. Compatible with all common subsequently applied lubricants and greases.
<b>ANTICORIT TX 8R / DW THIX R2 / LBO-SERIES</b>	Optimum chain and rope protection. Excellent wear protection when components are used for the first time. Compatible with common subsequently applied lubricants. Also recommended for conveyor belt chains.
<b>ANTICORIT DFG</b>	Penetrating oil spray with good lubricating properties, containing molybdenum disulphide and graphite as solid lubricants.
<b>ANTICORIT SPO-SERIES</b>	Skin-pass fluids with enhanced corrosion protection.
<b>ANTICORIT BGI-SERIES</b>	High Performance corrosion prevention oil containing VCI. Offers reliable long-term corrosion protection for bearings, gearboxes, etc.
<b>ANTICORIT BW-SERIES HKW-SERIES</b>	Corrosion protection fluids which form thick, waxy and dry films for outdoor and long-term protection. Can also be used for underfloor and cavity protection.
<b>ANTICORIT BML 3</b>	Mineral oil-free corrosion preventive for brake components and systems. Compatible with brake fluids.
<b>ANTICORIT CPX® TECHNOLOGY</b>	Full Solid wax conservation, free of solvent and water. Fulfils the VOC guideline acc. 31. BImSchV. Adjusted for cold application with standard spraying application. Used for cavity protection with long time corrosion protection and as closedown conservation for tools and dies. Available in different settings, also as protective undercoating.
<b>Corrosion Protection Concentrates</b>	
<b>ANTICORIT RPC 5000 / MPC 5000</b>	Corrosion protection concentrate for the protection of all metals. Excellent fingerprint remover properties. Suitable for the corrosion prevention in industrial washing machines. Soluble in white spirit and isoparaffins.
<b>ANTICORIT 04-SERIES</b>	Barium-free corrosion protection concentrates with outstanding corrosion protection properties for a lot of applications, especially for the bearing industry.
<b>Solvents and Solvent Based Products</b>	
<b>ANTICORIT A-SERIES</b>	Low-aromatic solvents and thinners for ANTICORIT products. Also available in VOC-free versions.
<b>ANTICORIT 1449 IP</b>	Isoparaffin solvent and thinner for ANTICORIT products.
<b>ANTICORIT RPS-SERIES</b>	Modern corrosion protection products based on solvents. Forming a thin and highly effective oil film. Available in different formulations.

## FUCHS Oil Chooser

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An overview about all types of relevant lubricants and service fluids will appear.

You only have to select the product(s) you are interested in (e.g. engine oil) and- here you are!

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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# Automotive product brochures



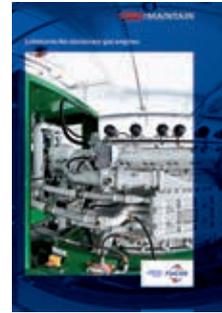
Lubricants for construction companies



Lubricants for transport companies



XTL for commercial vehicles



Lubricants for stationary gas engines



Lubricants for agricultural machinery



Rapidly biodegradable industrial lubricants – PLANTO



TITAN XTL



Motor oils for passenger cars



Gear oils



Automatic transmission fluids



Antifreeze, brake fluids and service products



XTL-Video for passenger cars

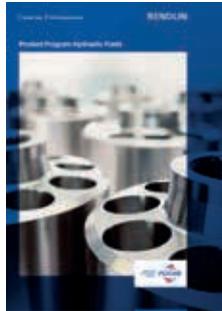


XTL-Video for commercial vehicles

## Industrial product brochures



Industrial lubricants



Hydraulic oils – RENOLIN



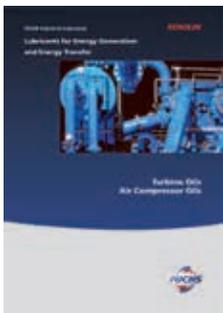
Gear and general lubricating oils – RENOLIN



Slideway oils – RENEP



Lubricants for the paper industry



Turbine and air compressor oils – RENOLIN



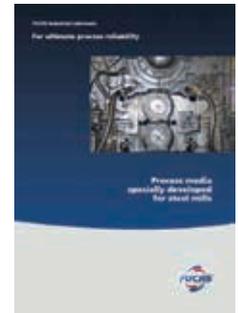
AEROSPACE lubricants



Lubricants for railways



RENOLIN XtremeTemp



Process media for steel mills



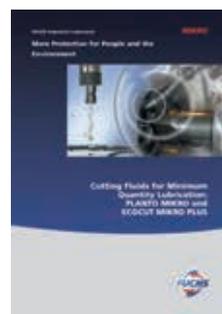
Special lubricants for wind power plants



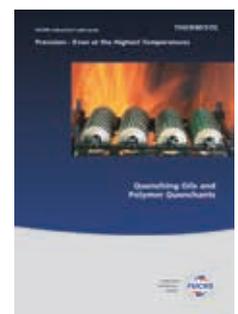
Refrigeration oils – RENISO



Lubricant solutions for the medical technology



Minimum quantity lubrication MIKRO



THERMISOL – Quenching oils and Polymer Quenchants



Cleaner for metalworking – RENOCLEAN



Rapidly biodegradable industrial lubricants – PLANTO

Request under: [export@fuchs-schmierstoffe.de](mailto:export@fuchs-schmierstoffe.de). Screen-pdf files of the shown brochures can also be downloaded, see [www.fuchs.com/de/en](http://www.fuchs.com/de/en).



## 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 engineers will be glad to advise on products for the application in question and also on our full range of lubricants.

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