

Lubricants for Construction Companies



MOVING YOUR WORLD



FUCHS LUBRICANTS GERMANY

We do not just develop lubricants. We develop intelligent solutions for highly complex challenges.

To this end, we have pooled our expertise and experience from a wide range of application areas: FUCHS SCHMIERSTOFFE and FUCHS LUBRITECH became FUCHS LUBRICANTS GERMANY.

Our goal: to keep our customers' world in motion. Efficient, sustainable, reliable. Today and tomorrow.

What can we move for you?

FUCHS LUBRICANTS GERMANY

Facts and figures

Company: FUCHS LUBRICANTS GERMANY GmbH, a company of the FUCHS Group

Locations: Based in Mannheim, with sites in Bremen, Dohna, Hamburg, Kaiserslautern, Kiel and Wedel; approx. 1,400 employees

Product range: A full range of more than 3,000 products for all application areas

Certifications i. a.: ISO 9001, IATF 16949, ISO 14001, ISO 45001, ISO 50001, ISO 21469, HALAL, KOSHER (detailed certifications at www.fuchs.com/de/en)

CO₂ neutral production*

Since 1931, we have been pursuing the same goal: to keep the world moving. With innovative and technological lubricant solutions that have a sustainable impact on the future. Unconditional reliability is our top priority, it is the foundation of our company and basis for everything that defines us.

Reliability is both a driver and a demand. And it's a promise to all our customers in the fields of automotive suppliers and OEMs, mechanical engineering, metal processing, mining and exploration, aerospace, energy, construction and transport, agriculture and forestry, as well as the paper, steel, metal, cement, forging and food industries, but also qualified lubricant dealers, car dealerships and workshops.

Long-term experience, high development strength and the fulfillment of far-reaching standards are the basis for the special quality of our world-leading product brands. We deliver solutions that are simply more efficient and therefore more sustainable. We always think in holistic solutions. For the development of individual solutions, we enter into an intensive customer dialog with you. This is the way we live up to our claim of moving your world.

MOVING YOUR WORLD

*Partially also based on compensation





LOWER OPERATING COSTS, HIGHER MACHINE AVAILABILITY.

Lubricant is not always the same Lubricant: With the high performance lubricants from FUCHS, you can rely on highest reliability at all temperatures, lower oil consumption, significant fuel savings and specifically extended oil change intervals. The advantage is obvious: where the engine or gearbox runs more smoothly and reliably, operating costs are reduced and the availability increased.

Challenge us.

Engine Oils

TITAN

Product	Description	Specifications	Approvals	FUCHS Recommendations
Engine Oils				
TITAN CARGO MAXX SAE 5W-30 	Premium MAXX Performance Engine Oil with new XTL®-Technology. Specially developed for vehicles with modern exhaust after treatment and turbocharger. Optimum cold starting properties and ageing stability for extreme fuel-economy over the whole drain-interval.	ACEA E9/E7/E6/E4 API CK-4/CJ-4 CAT ECF-3 JASO DH-1/DH-2/DL-0	CUMMINS CES 20081 CUMMINS CES 20086 DEUTZ DQC IV-18 LA MACK EOS-4.5 MAN M 3677 MAN M 3775 MAN M 3777 MB-APPROVAL 228.31 MB-APPROVAL 228.51 MB-APPROVAL 228.52 MTU DDC TYPE 2.1 MTU DDC TYPE 3.1 RENAULT RLD-3 SCANIA LDF-4 VOLVO VDS-4.5	DETROIT DIESEL 93K218 DETROIT DIESEL 93K222 IVECO 18-1804 CLASSE TLS E6 MAN M 3271-1 MAN M 3477 MAN M 3575 RENAULT RLD-4 SCANIA LA
TITAN CARGO MAXX SAE 10W-30	Premium MAXX Performance Engine Oil specially developed for vehicles with modern exhaust after treatment and turbocharger. Good cold starting properties and excellent ageing stability for fuel-economy over the whole drain-interval.	ACEA E9/E7/E6 API CK-4/SN CAT ECF-3	DEUTZ DQC IV-18 LA MACK EOS-4.5 MAN M 3477 MAN M 3677 MB-APPROVAL 228.31 MB-APPROVAL 228.51 MTU DDC TYPE 3.1 RENAULT RLD-3 SCANIA LA VOLVO VDS-4.5	CUMMINS CES 20086 DETROIT DIESEL 93K218 DETROIT DIESEL 93K222 JASO DH-2 RENAULT RLD-4
TITAN CARGO MAXX SAE 10W-40 	Premium MAXX Performance Engine Oil with new XTL®-Technology. Specially developed for vehicles with modern exhaust after treatment and turbocharger. Good cold starting properties and ageing stability for fuel-economy over the whole drain-interval.	ACEA E9/E7/E6/E4 API CJ-4 JASO DH-2 CAT ECF-3	DEUTZ DQC IV-10 LA (incl. TTCD) MACK EO-O PREMIUM PLUS MAN M 3271-1 MAN M 3477 MAN M 3575 MB-APPROVAL 228.31 MB-APPROVAL 228.51 MTU DDC TYPE 2.1 MTU DDC TYPE 3.1 RENAULT RLD-3 SCANIA LA VOLVO VDS-4	CUMMINS CES 20081 DETROIT DIESEL 93K218 IVECO 18-1804 CLASSE TLS E9 IVECO 18-1809 CLASSE NG2 MB 235.28 VOITH-RETARDER „B“
TITAN CARGO FLEX K-4 SAE 5W-30	Premium 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 E6/E7/E9 API CK-4 CAT ECF-3	DEUTZ DQC IV-18 LA MACK EOS-4.5 MB-APPROVAL 228.51 RENAULT RLD-3 VOLVO VDS 4.5	CUMMINS CES 20086 DETROIT DIESEL 93K222 IVECO 18-1804 TLS E9
TITAN CARGO LA SAE 10W-40	Premium 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 (incl. TTCD) 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

Engine Oils

TITAN

Product	Description	Specifications	Approvals	FUCHS Recommendations
Engine Oils				
TITAN CARGO LD3 SAE 10W-40	Premium Performance, fuel-economy engine oil for use in Scania Euro VI vehicles. Specially developed for extended service intervals.	ACEA E7/E4	MACK EO-N MAN M 3277 MB-APPROVAL 228.5 RENAULT RLD-2 SCANIA LDF-3 VOLVO VDS-3	'API CF SCANIA LDF-2
TITAN CARGO SAE 5W-40	Premium 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 CK-4/CJ-4/SN CAT ECF-3	CUMMINS CES 20086 DEUTZ DQC III-18 LA FORD M2C 171-F1 MACK EOS-4.5 MAN M 3775 MB-APPROVAL 228.31 MTU DDC TYPE 2.1 RENAULT RLD-3 VOLVO VDS-4.5	DETROIT DIESEL 93K222 MAN M 3575 RENAULT RLD-4
TITAN CARGO SAE 10W-30	Premium 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 CK-4/CJ-4 CAT ECF-3 JASO DH-2	CUMMINS CES 20086 DEUTZ DQC III-18 LA FORD M2C 171-F1 MACK EOS-4.5 MAN M 3775 MB-APPROVAL 228.31 MTU DDC TYPE 2.1 RENAULT RLD-3 VOLVO VDS-4.5	DETROIT DIESEL 93K222 MAN M 3575 RENAULT RLD-4
TITAN CARGO SAE 10W-40	Premium 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 CK-4/CJ-4/SN CAT ECF-3 JASO DH-2	DEUTZ DQC III-18 LA MACK EOS-4.5 MAN M 3775 MB-APPROVAL 228.31 MTU DDC TYPE 2.1 RENAULT RLD-3 VOLVO VDS-4.5	CUMMINS CES 20086 DETROIT DIESEL 93K222 MAN M 3575 RENAULT RLD-4
TITAN CARGO SAE 15W-40	Premium Performance, fuel-economy engine oil for a variety of commercial vehicle diesel engines. Specially developed for vehicles with extended service intervals, exhaust after treatment and turbocharger.	ACEA E9/E7 API CK-4/CJ-4/SN CAT ECF-3 JASO DH-2	ALLISON TES-439 (439-34862020) CUMMINS CES 20086 DETROIT DIESEL 93K222 DEUTZ DQC III-18 LA FORD M2C 171-F1 MACK EOS-4.5 MAN M 3775 MB-APPROVAL 228.31 MTU DDC TYPE 2.1 RENAULT RLD-3 VOLVO VDS-4.5	MAN M 3575 RENAULT RLD-4
TITAN TRUCK PLUS SAE 15W-40	Ultra 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-18 MACK EO-N 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 MAN M 3275-1 NH 330H

Engine Oils

TITAN

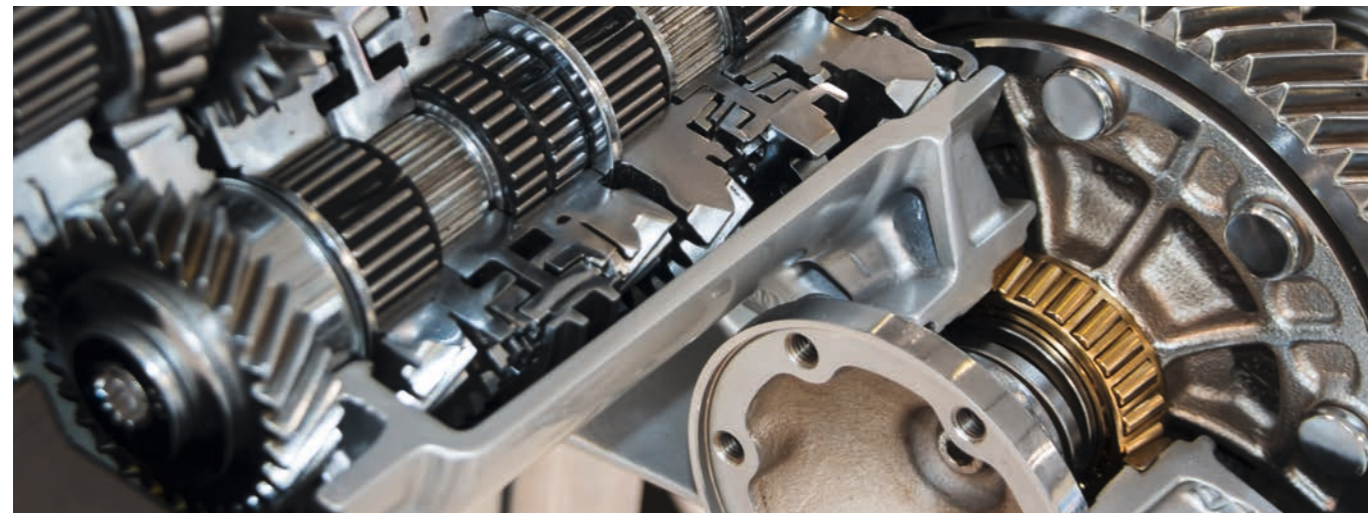
Product	Description	Specifications	Approvals	FUCHS Recommendations
Monograde Engine Oils				
TITAN UNIVERSAL HD SAE 10W	High Performance Monograde Engine Oil for gasoline and diesel engines. Specially developed for off-road vehicles. Depending upon manufacturer regulation also in other aggregates applicable.	–	MAN 270 ZF TE-ML 03B (ZF002013)	ACEA E2 API CF-4/SG MIL-L-2104 D ALLISON C-4 CAT TO-2 MB 228.0 ZF TE-ML 02C
TITAN UNIVERSAL HD SAE 20W-20	High Performance Monograde Engine Oil for gasoline and diesel engines. Specially developed for off-road vehicles. Depending upon manufacturer regulation also in other aggregates applicable.	–	MB-APPROVAL 235.27 VOITH-RETARDER "A"	ACEA E2 API CF-4/SG MIL-L-2104 D ALLISON C-4 CAT TO-2 MAN 270 MB 228.0 ZF TE-ML 02C
TITAN UNIVERSAL HD SAE 30	High Performance Monograde Engine Oil for gasoline and diesel engines. Specially developed for off-road vehicles. Depending upon manufacturer regulation also in other aggregates applicable.	–	DEUTZ DQC I-02 MTU DDC TYPE 2 ZF TE-ML 04B (ZF001189)	ACEA E2 API CF-4/SG MIL-L-2104 D ALLISON C-4 CAT TO-2 MAN 270 MB 228.2 ZF TE-ML 02C
TITAN UNIVERSAL HD SAE 40	High Performance Monograde Engine Oil for gasoline and diesel engines. Specially developed for off-road vehicles. Depending upon manufacturer regulation also in other aggregates applicable.	–	DEUTZ DQC I-02 MB-APPROVAL 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
TITAN UNIVERSAL HD SAE 50	High Performance Monograde Engine Oil for gasoline and diesel engines. Specially developed for off-road vehicles. Depending upon manufacturer regulation also in other aggregates applicable.	–	DEUTZ DQC I-02 MAN M 3275-2	ACEA E2 API CF-4/SG MIL-L-2104 D ALLISON C-4 CAT TO-2 MB 228.0 ZF TE-ML 02C



Gear Oils

TITAN

Product	Description	Specifications	Approvals	FUCHS Recommendations
Transmission and Gear Oils				
TITAN SUPERGEAR MC SAE 80W-90	Ultra High Performance Gear Oil based on MC-Synthesis for extended oil change intervals.	API GL-4/GL-5 SCANIA STO 1:0	MAN 341 TYPE Z2 MAN 342 TYPE M2 MB-APPROVAL 235.0 ZF TE-ML 02B, 05A, 12L, 12M, 16B, 17H, 19B, 21A (ZF000722)	CASE MS 1316 FORD WSP-M2C 197-A JOHN DEERE JDM J11E MAN M 3343 TYPE M MAN 341 TYPE E2 NH 520A SDFG OP 1705 STEYR B-101 VOLVO 97310 ZF TE-ML 07, 08
TITAN SUPERGEAR MC SAE 80W-140	Ultra High Performance Gear Oil based on MC-Synthesis for extended oil change intervals.	API GL-4/GL-5 SCANIA STO 1:0	–	JOHN DEERE JDM J11E OPEL 19 42 386 RENAULT VI VOLVO 97310 ZF TE-ML 08
TITAN GEAR LS SAE 90	High Performance LS (Limited Slip) hypoid gear oil for axles with or without limited slip differentials.	API GL-5 SAE J306: 85W-90	ZF TE-ML 05C, 16E, 21C (ZF000651)	MIL-L-2105 D FORD M2C 104-A JOHN DEERE JDM J11F NH 520B VOLVO 97310
TITAN GEAR MP SAE 80	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
TITAN GEAR MP SAE 90	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 GEAR HYP SAE 90	High Performance Gear Oil for highly-stressed differentials in commercial vehicles and passenger cars.	API GL-5 SAE J306: 85W-90	MB-APPROVAL 235.0 ZF TE-ML 16C, 17B, 19B, 21A (ZF000656)	FORD SR-M2C9102-A JOHN DEERE JDM J11E MAN 342 TYPE M1 OPEL 19 42 387 VOLVO 97310 VW TL 727 ZF TE-ML 07, 08



Gear Oils

TITAN

Product	Description	Specifications	Approvals	FUCHS Recommendations
Transmission and Gear Oils				
TITAN CYTRAC TD SAE 75W-90	Premium Performance Gear Oil for highly-stressed manual transmissions and hypoid axles in commercial vehicles formulated with fully-synthetic base oils. Developed for the longest oil change intervals.	API GL-4/GL-5 API MT-1 SAE J2360	DETROIT DIESEL 93K219.01 MAN 341 TYPE Z2 MAN 342 TYPE S1 MB-APPROVAL 235.8 MERITOR O-76-E SCANIA STO 1:0 SCANIA STO 1:1 G SCANIA STO 2:0 A FS VOLVO 97312 ZF TE-ML 02B, 05A, 12L, 12N, 16F, 17B, 19C, 21A (ZF003341)	JOHN DEERE JDM J11E JOHN DEERE JDM J11G MAN 341 TYPE E3 MAN 342 TYPE M3
TITAN CYTRAC SL SAE 75W-90	Premium Performance Gear Oil for highly-stressed hypoid axles in commercial vehicles formulated with fully-synthetic base oils. Developed for the longest oil change intervals in commercial vehicle axle drives.	API GL-5	MAN 342 TYPE S1 SCANIA STO 1:0	JOHN DEERE JDM J11E JOHN DEERE JDM J11G MB 235.8 VOLVO 97312 ZF TE-ML 05B, 07, 08, 12B, 16F, 17B
TITAN CYTRAC ULTRA SYNTH SAE 75W-80	Premium Performance Gear Oil for gear boxes in commercial vehicles, especially developed for ZF heavy duty transmissions with and without Intarder. Reduces fuel consumption by improving gearbox efficiency. Suitable for longest oil change intervals.	API GL-4 VOLVO 97307	EvoBus 26.000-030 MAN 341 TYPE Z5 ZF TE-ML 01E, 02E, 16P (ZF001457)	IVECO 18-1807 MSG2 MAN 341 TYPE VR MB 235.29 MB 235.41 VOITH-RETARDER „C“
TITAN CYTRAC MAT SAE 75W-80	Premium Performance Gear Oil for gear boxes in commercial vehicles, specially developed for manual and automatic ZF-gear boxes, formulated with selected base oils. Reduces fuel consumption by improving 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 (ZF003373)	IVECO 18-1807 CLASSE MGS1 MAN 341 TYPE E3 MAN 341 TYPE Z3 MAN 341 TYPE Z5 VOLVO 97305 VOLVO 97307 ZF TE-ML 01E, 02D, 02E, 08, 16P
TITAN CYTRAC HSX SAE 75W-90	Premium Performance Gear Oil for commercial vehicle manual transmissions and axle drives formulated with fully-synthetic base oils.	API GL-4/GL-5	EvoBus 26.000-032 EvoBus 26.000-037 ZF TE-ML 05A, 12L, 12N, 16F, 17B, 19C, 21A (ZF000642)	MAN 341 TYPE E3 MAN 341 TYPE Z2 MAN 342 TYPE M3 MAN M 3343 TYPE S JOHN DEERE JDM J11E JOHN DEERE JDM J11G SCANIA STO 1:0 ZF TE-ML 05B, 07, 21B
TITAN GEAR HYP LD SAE 80W-90	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	DETROIT DIESEL 93K219.02 EvoBus 26.000-032 EvoBus 26.000-034 JOHN DEERE JDM J11E MAN 341 TYPE GA1 MAN 342 TYPE M3 MB-APPROVAL 235.20 SCANIA STO 1:0 VOLVO 97321 ZF TE-ML 05A, 12L, 12M, 16B, 17B, 19B, 21A (ZF000645)	MIL-PRF-2105 E ARVIN MERITOR O-76-D MACK GO-J ZF TE-ML 07A

Gear Oils

Product	Description	Specifications	Approvals	FUCHS Recommendations
Automatic Transmission Fluids (ATF)				
TITAN ATF 5500	Premium Performance ATF for automatic transmission in motor vehicles. Outstanding base oil quality for optimal cold temperature properties and high ageing stability. Durable friction properties for excellent wet clutch performance. Product dyeing: none.	–	EvoBus 27.000-017 MAN 339 TYPE V1 MAN 339 TYPE V2 MAN 339 TYPE V3 MAN 339 TYPE Z3 MAN 339 TYPE Z12 MB-APPROVAL 236.9 VOITH 150.014524.xx VOLVO 97341 ZF TE-ML 04D, 14C, 16M, 16S, 20C, 25C (ZF001797)	DEXRON III (H) ALLISON TES 295 ALLISON TES 389 IVECO 18-1807 CLASSE AG3/I MAN 339 TYPE Z4 VOITH H55.6336.xx
TITAN ATF 5668	Premium Performance ATF especially developed for highly stressed ALLISON step automatic transmissions in commercial vehicles. Product dyeing: red.	–	ALLISON TES 668®	ALLISON TES 295 ALLISON TES 389 VOLVO 97340 VOLVO 97341
TITAN ATF 4000	Ultra High Performance ATF for use in automatic transmissions as well as other ATF applications. Licensed according to DEXRON III (H). Improved low-temperature shifting compared to DEXRON II. Product dyeing: red.	–	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)	ALLISON C-4 ALLISON TES 389 BMW 81 22 9 400 272 BMW 81 22 9 400 275 BMW 81 22 9 407 738 BMW 83 22 0 403 248 BMW 83 22 9 407 765 BMW 83 22 9 407 807 BMW 83 22 9 407 858 BMW 83 22 9 407 859 CAT TO-2 FORD MERCON OPEL 19 40 707 OPEL 19 40 767 VW TL 521 62 (G 052 162) ZF TE-ML 02F, 03D, 09, 11B, 17C
TITAN ATF 3000	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 PSA S71 2102 RENK-DOROMAT ZF TE-ML 02F, 03D, 09, 11A, 17C

Multifunctional Oils

Product	Description	Specifications	Approvals	FUCHS Recommendations
UTTO Oils for Construction Machinery				
TITAN UTTO PRO 102	Premium Performance Multifunctional Oil for gears, axles and hydraulic systems with improved wear protection and wide range of application temperatures. Specially developed and approved for VOLVO axles with built-in wet brakes in construction machinery.	API GL-4 SAE J306: 75W-75	VOLVO WB 102	ALLISON C-4 CASE MS 1207/1209/1210 CATERPILLAR TO-2 FORD M2C86-C FORD ESN-M2C134-D JCB 4000/0500 - JCB 4000/2200 JOHN DEERE JDM J20C JOHN DEERE JDM J20D KOMATSU AXO 80 (KES 07.866) KUBOTA UDT FLUID MASSEY FERGUSON CMS M 1145, 1143, 1135 VOLVO WB 101 ZF TE-ML 03E, 05F, 06K, 17E, 21F
TITAN UTTO WB	Ultra High Performance Multifunctional Oil (UTTO/MFO) for use in transmission and hydraulic systems with integrated wet brakes, clutches and differentials for construction and agricultural machinery.	–	VOLVO WB 101 ZF-TE ML 03E, 03F, 05F, 06K (ZFxxxxx)	AGCO Q-1826 (Whitefarm), Powerfluid 821 XL ALLISON C-4 API GL-4 CASE MS 1210, 1209, 1207, 1206, 1205, 1204 CATERPILLAR TO-2 CNH MAT 3505, 3506, 3525 FNHA-2-C-201.00 FORD ESN M2C41-B, M2C53-B, M2C92-A, M2C134-D JOHN DEERE JDM J20C JOHN DEERE JDM J20D KUBOTA UDT FLUID MASSEY FERGUSON CMS M 1145, 1143, 1141, 1135 SAE J300: 10W-30 ZF TE-ML 03L
TITAN UTTO PLUS	Ultra High Performance Multifunctional Oil for gears, axles and hydraulic systems on construction and agricultural machinery with or without wet brakes and limited slip differentials.	SAE J300: 5W-30	–	SAE J306: 75W-80 CASE MS 1207/1209/1210 FORD M2C86-C, ESN-M2C134-D JOHN DEERE JDM J20C JOHN DEERE JDM J20D JOHN DEERE JDM J14 KOMATSU KES 07.866 KUBOTA UDT FLUID MASSEY FERGUSON CMS M 1143, 1135 STEYR 397.88.0001 VOLVO WB 101
TITAN UTTO ZF	High Performance Gear Oil for ZF axles with limited-slip differentials. Recommended for construction machinery and material-handling vehicles axles.	API GL-4	ZF TE-ML 05F, 06K, 17E, 21F (ZF000661)	VOLVO WB 101 ZF TE-ML 03E
TITAN UTTO TO-4 SAE 10W	High Performance multifunctional lubricant for hydraulics in construction machinery.	API GL-4 CAT TO-4	ZF TE-ML 03C (ZF002186)	ALLISON C-4 KOMATSU KES 07.868.1
TITAN UTTO TO-4 SAE 30	High Performance multifunctional transmission lubricant for construction machinery.	API GL-4 CAT TO-4	ZF TE-ML 03C, 07F (ZF002185)	ALLISON C-4 ALLISON TES-439 KOMATSU KES 07.868.1
TITAN UTTO TO-4 SAE 40	High Performance multifunctional transmission lubricant for construction machinery.	API GL-4 CAT TO-4	–	ALLISON C-4 ALLISON TES-439 KOMATSU KES 07.868.1
TITAN UTTO TO-4 SAE 50	High Performance multifunctional lubricant for final drives in construction machinery.	API GL-4 CAT TO-4	–	KOMATSU KES 07.868.1

Hydraulic Oils

TITAN

Product	Description	Specifications	Approvals	FUCHS Recommendations
Multigrade Hydraulic Oils				
TITAN HYD MR 530 MC	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)	–	–
TITAN HYD 1030	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
Central Hydraulic/Power Steering Fluids				
TITAN CHF 115	Premium Performance Power Steering and Central Hydraulic Fluid with a wide application and approval profile for various manufacturers. Product dyeing: green.	FORD WSS-M2C204-A	CHRYSLER MS-11655B EvoBus 39.060-001 MAN M 3289 MB-APPROVAL 345.0 PSA S71 2710 ZF TE-ML 02K (ZF004744) 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 IVECO 18-1807 CLASSE APU OPEL B 040 0070 PORSCHE 000 043 203 33 SAAB 3032 380 VOLVO 1161529

Hydraulic Oils

RENOLIN

Product	Description	Main application area
Hydraulic and Industrial Gear Oils		
Range RENOLIN XtremeTemp	Universal, high-performance hydraulic oils with high viscosity index and excellent shear stability ($VI \geq 180$). Based on special hydrogenated base oils, very good ageing behaviour, long lifetime, excellent corrosion protection and very good zinc-containing wear protection for high pressure - good demulsifying properties. Fulfil and surpass: DIN 51524-3: HVLDP; ISO 6743-4: HV; ISO 11158: HV	Universal high-performance multigrade hydraulic oils for stationary and mobile hydraulic systems, improved efficiency, increasing oil change intervals. Multigrade characteristics due to high, shear-stable viscosity index. Energy and fuel saving due to high volumetric efficiency. Approvals: Denison HF0, HF1, HF2; Bosch Rexroth RD90235 and RDE90245
Range RENOLIN XtremeTemp Plus	As RENOLIN XtremeTemp, but with additives which help to avoid stick-slip phenomena. For high-pressure applications; reduce friction especially in mixed friction conditions. DIN 51524-3: HVLDP(D); ISO 11158: HV; ISO 6743-4: HV	Slightly detergent, HVLDP (D) high performance multigrade hydraulic oils for stationary and mobile hydraulic systems surpass HVLDP acc. to DIN 51524-3, wide temperature window, excellent shear stability. Help to avoid stick-slip problems, especially at low speed and high load. Energy and fuel saving due to high volumetric efficiency.
Range RENOLIN LIFT	Special detergent type of hydraulic oils for elevators, hydraulic conveyors and fork lifters. Reliably prevents stick-slip, especially at high loads and low speeds. Zinc-containing; fulfil and surpass requirements according to: DIN 51524-2: HLPD; ISO 11158: HM; ISO 6743-4: HM/HG	Fork lifters, elevators, hydraulic transport mechanisms, stationary and mobile hydraulics. Protection against stick-slip.

Greases

RENOLIT

Product	Description	Specifications	Approvals	FUCHS Recommendations
Premium Quality				
RENOLIT CA-LZ (Spray can: RENO-LIT CA-LZ SPRAY)	Strongly adhesive, protects from wear even under extreme conditions, very resistant to water wash-out from metallic surfaces, longterm lubrication of passenger cars and commercial vehicles, construction industry, industrial and agricultural machinery. Temperature range -30 °C to +120 °C.	KP 2 K-30 ISO-L-X-CCHB 2	–	–
RENOLIT LZR 2 H	Premium multi-purpose grease, long-term rust prevention, sealing grease, central lubricating systems, sugar refineries, roof tile factories, paper industry, prevent standstill corrosion, hytel compatible. Temperature range -30 °C to +140 °C.	KP2N-30 ISO-L-X-CDIB 2	Central lubrication systems of the manufacturer: BAIER & KÖPPEL	–
RENOLIT FAP 502	For high loaded plain and roller bearings with slow sliding speeds. Temperature range -20 °C to +140 °C.	–	–	–
RENOLIT LX-PEP 2 Also available in NLGI grades 1-2, 2-3 and 3.	Multipurpose grease, wheel bearings of motor vehicles, roller bearings of e-motors, needle bearings of cardan shafts, plain and roller bearings, ventilator grease. Temperature range -30 °C to +150 °C.	KP2N-30 ISO-L-X-CDEB 2	MAN 284 Li-H2, MB Approval 265.1, ZF TE-ML 12, Schaeffler Group, VW TL 52 147 X, Interprecise (IDC-Bearings), Deutsche Bahn, John Deere	–
RENOLIT HI-TEMP 100	Lubrication of plain and roller bearings over a wide temperature range, e.g. electric motors, traction motors, bearings, belt rollers, cardan shafts and wheel bearings in polar regions. Temperature range -50 °C to +140 °C.	KPHC2N-50 ISO-L-X-EDFB 2	–	–
RENOLIT HI-TEMP 220	Lubrication of plain and roller bearings over a wide temperature range, e.g. paper mills (wet and dry section), truck hub units and cardan shafts. Temperature range -40 °C to +140 °C.	KPHC2N-40 ISO-L-X-DDFB 2	–	–
RENOLIT HI-TEMP 460	Lubrication of plain and roller bearings of conveyor drives (e.g. in open cast mining), pellet presses, paper mills, and for lifetime lubrication in trucks and construction machinery. Temperature range -40 °C to +140 °C.	KPHC2N-40 ISO-L-X-DDFB 2	–	–
RENOLIT JP 1619	EP grease with additives for improve corrosion protection, ageing resistance and adhesiveness, lubrication of friction points requiring very good sliding behaviour, low start-up resistance, also at low temperature, e.g. rack and pinion steerings, prop shafts, high-speed bearings. Temperature range -50 °C to +120 °C.	–	DBL 6804.70 VW TL 52 168 Dana Spicer Bosch	–
RENOLIT POLAR BLACK	Fully synthetic heavy duty all-season grease with solid lubricants for plain and roller bearings of construction machinery and mining vehicles exposed to changing ambient temperatures. Temperature range -50 °C to +140 °C.	–	–	–
RENOLIT PU-FH 300	Lubricating points exposed to high thermal loads and bearings with slow sliding speeds (asphalt pavers). Temperature range -20 °C to +180 °C.	KP2R-20	–	–
RENOLIT CSX 15	Lubrication of high loaded, low speed plain and roller bearings, can be applied when the grease has to meet high demands on corrosion protection and working stability; easily pumpable even in long tubes fed by centralised lubrication systems. Typical applications are plain and roller bearings in steel mills, wood pellet presses, paper industry, mining, cement mills, quarries and construction equipment. Temperature range -20 °C to +180 °C.	–	A. Kahl pellet presses	–

Greases

RENOLIT

Product	Description	Specifications	Approvals	FUCHS Recommendations
High Quality				
RENOLIT CX-HT 0	Lubrication of high loaded, low speed plain and roller bearings and open gears, e.g. for construction machinery, steel mills, coal and ore mills. Temperature range -20 °C to +160 °C.	–	–	–
RENOLIT CX-HT 2	Lubrication of high loaded, low speed plain and roller bearings, e.g. for kiln cars, construction machinery, steel mills, coal and ore mills. Temperature range -20 °C to +180 °C.	–	–	–
RENOLIT MT 2	Mainly used for the lubrication of plain and roller bearings, also under difficult operating conditions, e.g. construction machinery, recycling plants and screening plants. Temperature range -30 °C to +120 °C.	KP 2 K-30	–	–
RENOLIT LZR 000	Semi-fluid grease for central lubricating systems of commercial vehicles. Temperature range -40 °C to +110 °C.	GP00-000G-40	MB Approval 264.0 MAN 283 LI-P 00/000 Willy Vogel AG Tecalmit	–
RENOLIT MP PLUS Only available for the use in FUCHS system grease guns.	High quality EP multipurpose grease with high adhesiveness for the lubrication of plain and roller bearings. Only available in SR cartridges. Temperature range -30 °C to +120 °C.	KP2K-30 ISO-L-X-CCEB 2	–	–
RENOLIT FEP 2 Also available in NLGI grade 0.	Steel mills, quarries, construction equipment, machines tools and forging presses. Temperature range -20 °C to +140 °C.	KP2N-20 ISO-L-X-BDEB 2	–	Liebherr gear cutting machines (AX3-V13)
RENOLIT FEP 25	Steel mills, quarries, construction equipment and forging presses. Temperature range -20 °C to +140 °C.	KP2-3N-20 ISO-L-X-BDEB 2-3	–	–
RENOLIT FLM 0	For mechanically loaded lubricating points, grease with MoS ₂ , and additives to improve corrosion protection, EP and AW. Temperature range -30 °C to +120 °C.	–	–	–
RENOLIT FLM 2 Also available for the use in FUCHS grease guns. Also available in NLGI grade 0.	For mechanically loaded lubricating points, grease with MoS ₂ , agricultural machinery, commercial vehicles, construction machinery, quarries and mining, rubber and concrete factories. Temperature range -30 °C to +140 °C.	KPF2N-30 ISO-L-X-CDEB 2	MAN 285 LI-PF 2	–
RENOLIT FLM 302	Excavator grease, high-loaded friction and roller bearings, open gears, universal shafts, guidances, slow running gearboxes, gear racks, central lubricating systems, amongst others: bolt and bush bearings susceptible to wear. Temperature range -20 °C to +120 °C.	KPF 2 K-20 ISO-L-XBCEB 2	–	–
RENOLIT LX1	Permanent and long term lubrication of roller bearings and lubricating points of all kinds, especially where high requirements are made regarding service life, temperature and corrosion protection. Temperature range -30 °C to +160 °C.	–	–	–
RENOLIT LX2	Permanent and long term lubrication of roller bearings and lubricating points of all kinds, especially where high requirements are made regarding service life, temperature and corrosion protection, e.g. bearings, electric motors, coupling bearings in the automotive sector - construction machinery, wheel bearings of commercial vehicles. Temperature range -30 °C to +160 °C.	–	Thyssen Krupp Rothe Erde	Machine tools of the manufacturer: Waldrich Coburg Woodworking machines of the manufacturer: Weing Raimann
RENOLIT LX3	Permanent and long term lubrication of roller bearings and lubricating points of all kinds, especially where high requirements are made regarding service life, temperature and corrosion protection, e.g. bearings, electric motors, coupling bearings in the automotive sector - construction machinery, forging presses, wheel bearings of commercial vehicles. Temperature range -20 °C to +160 °C.	–	–	–

Service Products

MAINTAIN

Product	Description	Specifications	Approvals	FUCHS Recommendations
Brake Fluids				
MAINTAIN DOT 514 LV	Premium Performance Brake Fluid for hydraulic brake systems and clutch actuation in passenger cars, trucks and motorcycles.	FMVSS NR. 116 DOT 3/4/5.1 ISO 4925 CLASS 3/4/5-1/6/7 JIS K2233 CLASS 3/4/5/6 SAE J 1703/1704	–	BMW QV 34001 FORD M6C65-A2 GM Europa GMW 3356 MB 331.0 PSA 571 2114 RENAULT 41-02-001/-H VW TL 766-Y, 766-Z
MAINTAIN DOT 4 HT	Premium Performance Brake Fluid for hydraulic brake systems and clutch actuation in passenger cars, trucks and motorcycles.	FMVSS NR. 116 DOT 3/4 ISO 4925 CLASS 3/4 JIS K2233 CLASS 3/4 SAE J1703/1704	–	FORD M6C62-A/ M6C9103-A NH 800A OPEL 19 42 421 VW TL 766-X
Antifreezes				
MAINTAIN FRICOFIN LL	Premium Performance Coolant Concentrate based on monoethylene glycol. Free of nitrites, amines, phosphates and silicates with OAT-technology. 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/ 14439 DETROIT DIESEL 93K217 FIAT 9.55523 GM GMW 3420 (6277M)/ GME L 1301 HYUNDAI MS 591-08 JASO M325 JIS K2234 JOHN DEERE JDM H5 KOMATSU AF-NAC (07.892 (2009)) LIEBHERR MD 1-36-130 MACK 014 GS 17009 MAZDA MEZ MN 121 D PSA B 71 5110 RENAULT 41-01-001/-S Type D SAAB B 040 1065 SKODA 61-0-0257 TOYOTA TSK 2601G-8A VW TL 774-D/F (G12+ / different colour) VOLVO COOLANT VCS (STD 418-0001)
MAINTAIN FRICOFIN HDD	Premium Performance Coolant Concentrate based on monoethylene glycol. Free of amines and phosphates with low silicate technology. Product dyeing: yellow.	ASTM D 3306 TYPE I/D 4985/ D 6210 TYPE I-FF/D 7583 AS/NZS 2108:2004 TYPE A BS 6580:2010 SAE J814 CHRYSLER MS 7170/9769 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

Service Products/Industrial Oils

MAINTAIN | RENOLIN

Product	Description	Specifications	Approvals	FUCHS Recommendations
Antifreezes				
MAINTAIN FRICOFIN	Premium Performance Coolant Concentrate based on monoethylene glycol. Free of nitrites, amines and phosphates with hybrid technology. Product dyeing: blue-green.	AFNOR NFR 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)
Fuel Additives				
MAINTAIN DIESEL EFFECT	Premium Performance Fuel Additive improving Diesel fuel properties for singular as well as constant treatment.	–	–	–
Screw Compressor Oils				
Range RENOLIN SILVERSCREW	High-tech air compressor fluids with high oxidative and thermal stability, which allows oil lifetimes of up to 6000h. Surpasses the requirements of DIN 51506:VDL. Corresponds to ISO 6743-3-DAJ. Corresponds to several OEM Requirements.			Universal air compressor fluids for oil injected screw, vane and piston compressors.
Range RENOLIN GOLDSCREW	Outstanding high-tech air compressor fluids with excellent oxidative and thermal stability, which allows oil lifetimes of up to 9000h. Surpasses the requirements of DIN 51506:VDL. Corresponds to ISO 6743-3-DAJ. Corresponds to several OEM Requirements.			Universal air compressor fluids for oil injected screw, vane and piston compressors.
Range RENOLIN UNISYN OL	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 51524-2/3: HLP/HVLP			Fully-synthetic screw compressor oils based on PAO for extended oil change intervals even when subject to high thermal loads. Also suitable for highly loaded hydraulic systems. Excellent air release properties. Extended oil drain intervals. Based on PAO

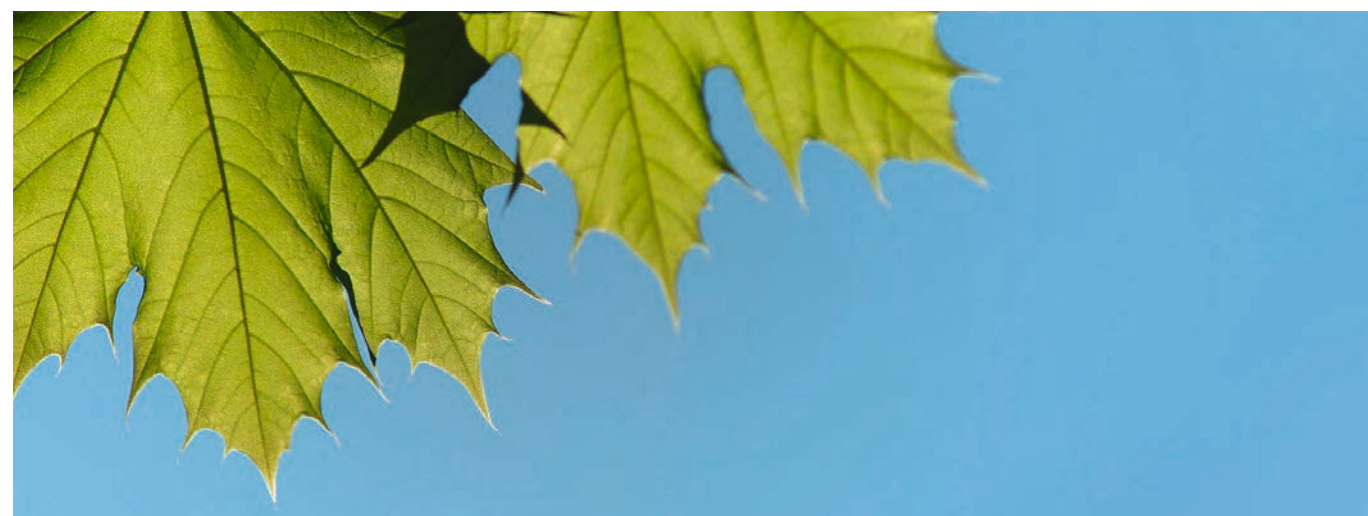
Specialities

PLANTO

Product	Description	Specifications	Approvals	FUCHS Recommendations
Biodegradable Engine Oil				
PLANTO MOT SAE 10W-40	Low-ash diesel engine oil for modern diesel engines. Biodegradable and especially recommend for use with alternative diesel fuels.	–	DEUTZ DQC IV-18 LA	ACEA E9/E7/E6 API CK-4 CAT ECF-3 CUMMINS CES 20086 DETROIT DIESEL 93K222 JASO DH-2 MACK EOS-4.5 MAN M 3271-1 MAN M 3477 MB 228.51 MTU TYPE 3.1 RENAULT RLD-3/RLD-4 VOLVO VDS-4.5
Biodegradable Multifunctional Oil				
PLANTO HYTRAC PLUS	Biodegradable Premium Performance Multifunctional Oil (UTTO) for tractor gearboxes with or without wet brakes.	SAE 10W-30 SAE 80	–	CASE MS 1207, 1209 FORD M2C134-D JOHN DEERE JDM J20C NEW HOLLAND NH 410 MASSEY FERGUSON CMS M1127, 1135, 1143 HLP/HVLP ISO VG 32, 46, 68, 100 according to DIN 51 524-2 /-3






Further biodegradable specialties can be found in the FUCHS PLANTO brochure.



Specialities

PLANTO

Product	Description	Specifications	Approvals	FUCHS Recommendations
Environmentally Friendly Industrial and Hydraulic Oils				
PLANTOSYN 3268 	PLANTOSYN 3268 is a biodegradable hydraulic and lubricating oil based on synthetic, fully saturated ester. Biodegradable acc. to OECD 301B > 60 %. High wear protection, good sealing and nonferrous metal compatibility, high oxidation stability. Universally applicable in all mobile and stationary hydraulic systems, if the use of biodegradable hydraulic fluids of type HEES acc. to ISO 15380 is necessary (e.g. agriculture and forestry applications). Extended oil change interval possible (compared to unsaturated ester). Approved by Mannesmann Rexroth & Sauer Sundstrand. Application temperature range from -30 °C up to 100 °C. For change-over from mineral oil, see ISO 15380.	Surpasses the requirements acc. to ISO 15380: HEES DIN 51524-3: HVLP (dry TOST test) Awarded with EU Ecolabel: DE/027/273	FENDT KDM 28/2006 O&K Baumaschinen	BOSCH REXROTH AG CAT BF-1 KRAMER ALLRAD PALFINGER SAUER DANFOSS TIMBERJACK VALMET/KOMATSU FOREST PONSSE
PLANTOSYN 3268 ECO 	PLANTOSYN 3268 ECO is a hydraulic oil based on synthetic ester, with additives for improved ageing stability. Biodegradable according to OECD 301B > 60 %. High wear protection. Universally applicable as hydraulic and lubricating oil if a biodegradable fluid is necessary. Oil tank temperature range from -30 °C up to 90 °C. For change-over from mineral oil, see ISO 15380.	Surpasses the requirements acc. to ISO 15380: HEES DIN 51524-3: HVLP (dry TOST test) Awarded with EU Ecolabel: DE/027/160	FENDT KDM 28/2006	–
Rapidly Biodegradable Greases				
PLANTOGEL ECO 2 S (Spray can: PLANTO MULTISPRAY S) 	Rapidly biodegradable EP multipurpose grease for plain and roller bearing lubrication, e.g. water turbines or in agriculture and forestry. Good pumpability in central lubrication systems. Temperature range -40 °C to +120 °C.	Awarded with EU Ecolabel: DE/027/273	–	–
PLANTOGEL ECO 2 FS	Rapidly biodegradable EP multipurpose grease with solid lubricants for lubrication of plain and roller bearings, e.g. commercial vehicles and construction machinery. Temperature range -30 °C to +120 °C.	–	–	–

Note

The information contained in this product information is based on the experience and know-how of FUCHS LUBRICANTS GERMANY 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 aircraft or spacecraft. Our products may be used in the manufacture of components for aircraft or spacecraft if they are removed without residue from the components prior to assembly into the aircraft or spacecraft.

The information given in this product information 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 LUBRICANTS GERMANY 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 of our product information sheets at any time and without warning, unless otherwise provided in customer-specific agreements. With the publication of this product information, all previous editions cease to be valid. Any form of reproduction requires express prior written permission from FUCHS LUBRICANTS GERMANY GmbH.

FUCHS LUBRICANTS GERMANY GMBH

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.

Contact:



FUCHS LUBRICANTS GERMANY GmbH
Friesenheimer Straße 19
68169 Mannheim/Germany
Phone: +49 621 3701-0
Fax: +49 621 3701-7000
E-mail: zentrale-flg@fuchs.com
www.fuchs.com/de/en

Export Division
Friesenheimer Straße 19
68169 Mannheim/Germany
Phone: +49 621 3701-1703
Fax: +49 621 3701-7719
E-mail: export-flg@fuchs.com
www.fuchs.com/de/en