# TIECTROL

# High-quality lubricants

for commercial, industrial and agricultural applications.

Small effort. Great effect.





# Dobava olj in mazil

**E**: jernej@encom.si **T**: 070 901 960



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# High-Performance products for all sectors.



Agriculture



Industry



Municipality



Garages



Logistic



Construction



 $\mathsf{CHP}$ 



End-



# Each drop a contribution to success...

Everything must work like clockwork – you have to rely on that completely in all areas of your daily business. This also applies to your units and machines: a smooth running of all processes is vital. And that's what our TECTROL lubricants have been developed for.

TECTROL lubricants stand for highest possible reliability and **best possible operational safety** of your equipment. And what's more: TECTROL has **numerous fields of application** – universal lubricants, type rationalization and special lubricants for

sensitive applications. Our comprehensive range of high-performance products offers the right solution for each application.

Our continuous developement and improvement of products guarantee that each and every one of our TECTROL products and services meets the high standards required by our customers. This means that you can **operate your business optimally** – and always be sure that every single drop of TECTROL contributes to your success.

# Four signs of quality,

numerous fields of application:



#### XL lubricants

XL lubricants feature a new base oil formulation in combination with state-of-the-art additive technology. Lubricants with XL technology stand for extraordinary energy efficiency and fuel savings, highest possible lifetime prolongation and excellent wear protection. XL lubricants have a very high natural viscosity index and an outstanding aging stability. All these features contribute to a considerably enhanced long-term performance.



#### **ST lubricants**

Synthetic oils are characterized by a high aging stability and a low evaporation loss. With their high viscosity index and a very low pour point, synthetic engine oils are excellent multi-purpose oils all year round. This means that the engine lifetime can be prolonged considerably and fuel can be saved.



#### **HC lubricants**

HC lubricants are tailored to the growing quality demands of our time: economically, environmentally friendly and optimally adapted to each other. Using a special conversion process, natural mineral oil is refined under high pressure and high temperatures by so-called hydrocracking. Due to the stable viscosity/temperature properties and the high thermal load, the lubricants are suited for application under extreme conditions.



# Biodegradable lubricants

Leakages while working in sensitive areas outdoors may lead to serious damages of the environment and subsequently to high follow-up costs. Biodegradable lubricants were developed to minimize these risks. They are environmentally friendly, fast biodegradable und technically advanced. Regarding performance and profitability, TERRA lubricants are in no way inferior to mineral products and they are recommended by leading construction and agricultural machine manufacturers.



#### MULTIFUNCTIONAL OIL

#### **Product** Description **Performance Profile** Multi-purpose oil (STOU) based on **TECTROL** Approvals: **SUPER MULTISYN PLUS** state-of-the-art base oil synthesis Deutz DQC III-10 **SAE 10W-40** technology and special latest Application recommendations\*: SAE 75W-90 generation additives for engines, ACEA E3 / E4 / E5 / E7, AFNOR NF E 48-603 HV, Allison manual transmissions, wet brake C-4, also recommended for CATERPILLAR / Cummins 57 systems, hydraulics, turbo clutches / Renault, API CI-4 / GL-3 / GL-4 / GL-5 in agricultural for tractors and other agricultural machines under normal operating conditions (not in machines, construction machines, Holmer axes) / LS, Case MS 1207 / MS 1209 / MS utility vehicles and limited slip 1210 / MS 1230, CNH New Holland MAT 3505 / MAT differentials and axle drives in 3509 / MAT 3525 / MAT 3526 / NH 030 C / NH 330 processing machines. G / NH 330 H / NH 410 B / NH 420 A / NH 526 C / NH 82009201 / NH 82009202 / NH 82009203, DIN 51 524-3 HVLP (detergent), Fendt KDM 28/2006, FNHA -2-C-200.00 / -2-C-201.00, Ford M2C 134-D / M2C 159-B / M2C 159-C / M2C 48-C3 / M2C 86-B, John Deere J 20 C, MAN M 3275-1, Massey Ferguson CMS M 1139 / CMS M 1143 / CMS M 1144 / CMS M 1145 / M 1135, MB 228.3, MIL - L-2105 A, ZF TE-ML 06A / 06B / 06C / 06F / 06L / 07B Multifunctional oil for diesel **TECTROL** Specifications: **SUPER MULTI BM 1030** ACEA A3/B4 / E5 / E7 / E9, API CH-4 / CI-4 Plus / CJ-4 engines with and without turbo-**SAE 10W-30** charger as well as gears and / GL-4 / SL, JASO DH-2 SAE 75W-80 hydraulic systems in construction Application recommendations\*: 57 machines. Its broad range of appli-Allison C-4 / TES-439, Case MS 1230, CAT ECF-1-a / cations in combination with the ECF-2 / ECF-3 / HYDO Advanced 10/30 / TO-4 (SAE high performance of this lubricant, 10W, 30), CNH New Holland MAT 3509, Cummins CES offers benefits with regards to wear 20078 / CES 20081, Detroit Diesel DDC 93K218, Deutz protection, extended operation DQC III-10 LA, DIN 51 524-3 HVLP (detergent), JCMA times and efficiant lubrication of HK 46W (Extended Drain), Komatsu HO-46 (HV) / KES the systems. 07.868.1, MAN M 3575, MB 228.31, MTU -Oil category 2.1, Renault RLD-2 / RLD-3, Volvo VDS-4, ZF TE-ML 07D **TECTROL** Multifunctional oil (STOU) for Approvals: SUPER 2000 CD-HC diesel engines with and without Deutz DQC I-02, ZF TE-ML 06B/06F/07B - ZF001205 **SAE 10W-30** turbocharger as well as gears, Specifications: SAE 75W-80 hydraulic and wet brake systems API CG-4 / GL-4 HC in agricultural and construction Application recommendations\*: machines. ACEA E3, AFNOR NF E 48-603 HV, Allison C-4, also recommended for CATERPILLAR / Claas, Case MS 1207

/ MS 1209 / MS 1210 / MS 1230. CNH New Holland MAT 3505 / MAT 3509 / MAT 3525 / MAT 3526 / NH 410 B / NH 420 A / NH 82009201 / NH 82009202 / NH 82009203, DIN 51 524-3 HVLP (detergent), Ford M2C 134-D / M2C 159-B / M2C 159-C / M2C 48-C3 / M2C 86-B, John Deere J 20 C, Massey Ferguson CMS M 1139 / CMS M 1143 / CMS M 1144 / CMS M 1145 / M 1135, ZF TE-ML 06A / 06C / 06R

#### **MULTIFUNCTIONAL OIL**

#### **Product** Description **Performance Profile TECTROL** High perfomance multifunctional **Specifications: SUPER 2000 PLUS** oil (STOU) for diesel engines with ACEA E3, Allison C-4, API CG-4 / GL-4 **SAE 10W-40** and without turbocharger as well Application recommendations\*: **SAE 80W-90** as gearboxes, hydraulic and wet also recommended for CATERPILLAR / Claas / Cummins brake systems of agricultural and / Deutz-Fahr / Fendt / Renault / Valtra, Case MS 1118 / HC construction machines. MS 1206 / MS 1207 / MS 1209 / MS 1230, CNH New Holland MAT 3505 / MAT 3509 / MAT 3525 / MAT 3526 / NH 024 C / NH 030 C / NH 410 B / NH 420 A / NH 82009201 / NH 82009202 / NH 82009203, Deutz DQC I-02, DIN 51 524-3 HVLP (detergent), Ford M2C 134-D / M2C 159-B / M2C 159-C / M2C 48-C3 / M2C 86-B, John Deere J 20 C / J 27, MAN 271, Massey Ferguson CMS M 1139 / CMS M 1143 / CMS M 1144 / CMS M 1145 / M 1135, MB 228.1, ZF TE-ML 06A / 06B / 06C / 06F / 07B / 07D **TECTROL** Quickly biodegradable multifunc-Application recommendations\*: **TERRA SUPER 2000** tional low-viscosity oil (STOU) for ACEA A2/B2 / E2, also recommended for Allison / CATengines, manual transmissions, wet ERPILLAR / CNH New Holland / Deutz-Fahr / Fendt / **SAE 5W-40** brake systems, hydraulics and turbo Fiat / Ford / John Deere / Massey Ferguson, API CF-4 / clutches for tractors and other GL-3 / GL-4 / GL-5 in agricultural machines under noragricultural machines, construction mal operating conditions (not in Holmer axes) / LS / SH, machines as well as limited slip DIN 51 524-3 HVLP (detergent), MAN 271, MB 228.1, differentials and axle drives in pro-MIL - L-2105 A, ZF TE-ML 06B / 07B cessing machines. **TECTROL** Multifunctional oil (STOU) for **Specifications:** diesel engines with and without ACEA E3, Allison C-4, API CG-4 / GL-4 **TRAKTORENÖL UNIVERSAL** turbocharger and gearboxes, Application recommendations\*: SAE 15W-30 hydraulic and wet brake systems also recommended for CATERPILLAR / Claas / Cummins SAE 80W of agricultural and construction / Deutz-Fahr / Fendt / Renault / Valtra, Case MS 1118 / MS 1206 / MS 1207 / MS 1209 / MS 1230, CNH New machines. Holland MAT 3505 / MAT 3509 / MAT 3525 / MAT 3526 / NH 024 C / NH 030 C / NH 410 B / NH 420 A / NH 82009201 / NH 82009202 / NH 82009203, Deutz DQC I-02, DIN 51 524-3 HVLP (detergent), Ford M2C 134-D / M2C 159-B / M2C 159-C / M2C 48-C3 / M2C 86-B, John Deere J 20 C / J 27, MAN 271, Massey Ferguson CMS M 1139 / CMS M 1143 / CMS M 1144 / CMS M 1145 / M 1135, MB 228.1, ZF TE-ML 06A / 06B / 06C / 06F / 07B / 07D **TECTROL** Multifunctional oil (UTTO) for gear Approvals: and hydraulic gear systems with ZF TE-ML 03E/05F/17E/21F - ZF001678 **UTTO-HF** SAE 15W-30/SAE 10W-30 integrated wet brakes and/or wet Specifications: clutches as well as axles with and API GL-4 **SAE 75W-80** without limited slip differentials Application recommendations\*: of agricultural and construction AGCO Powerfluid 821 XL / Q-186 (Whitefarm), Allison machines. C-4, also recommended for Claas / Fendt / Landini / Same / Volvo, Case MS 1206 / MS 1207 / MS 1209 / MS 1210 / MS 1230, CNH New Holland MAT 3505 / MAT 3506 / MAT 3509 / MAT 3525 / MAT 3526 / MAT 3540 / NH 410 B, FNHA -2-C-200.00 / -2-C-201.00, Ford M2C 134-D / M2C 48-C3 / M2C 86-B / M2C 86-C, John Deere J 20 C, Kubota UDT FLUID, Massey Ferguson CMS M 1143 / CMS M 1145 / M 1135 / MF 1141, SDFG OT-1891 A, VALTRA G02-08, Volvo WB

101, ZF TE-ML 06K

<sup>\*</sup> Please find further recommendations and approvals in the product information sheets. The instructions of the unit's manufacturers must be observed.

# **MULTIFUNCTIONAL OIL**

Product	Description	Performance Profile
TECTROL UTTO-F SAE 20W-30 SAE 80W-85	Multifunctional oil (UTTO) for gear and hydraulic gear systems with integrated wet brakes and/or wet clutches as well as axles with and without limited slip differentials of agricultural and construction machines. It was optimized regarding noise generation such as chattering and squeaking and is often used as "problem solver" for wet brakes with braking noise.	Specifications: API GL-4 Application recommendations*: AGCO Powerfluid 821 XL / Q-186 (Whitefarm), Allison C-4, also recommended for Claas / Deutz-Fahr / Landini / Renault / Same, Case MS 1206 / MS 1207 / MS 1209 / MS 1210 / MS 1230, CNH New Holland MAT 3505 / MAT 3506 / MAT 3509 / MAT 3525 / MAT 3526, Fendt (nicht Vario), FNHA -2-C-200.00 / -2-C-201.00, Ford M2C 134-D / M2C 48-C3 / M2C 86-B / M2C 86-C, John Deere J 20 C, Massey Ferguson M 1135 / MF 1141
TECTROL UTTO-ZF SAE 20W-40	TECTROL UTTO-ZF is a special gear oil for use in ZF axles with limited slip differentials and axle drives subjected to high thermal loads. Particularly recommended for use in highly loaded construction machines.	Approvals: ZF TE-ML 05F/06K/17E/21F - ZF001161 Application recommendations*: also recommended for Hanomag / Komatsu, Volvo WB 101, ZF TE-ML 03E
TECTROL UTTO-TO SAE 30	High-performance transmission and hydraulic fluid for very heavily loaded wet break systems, particularly suited for power shift transmissions, gears and propel drives of construction machines.	Approvals: ZF TE-ML 03C/07F - ZF001165 Specifications: API GL-4, CAT TO-4, Komatsu KES 07.868.1 Application recommendations*: Allison C-4 / TES-439, also recommended for Eaton

# **ENGINE OIL FOR MIXED FLEET**

Product	Description	Performance Profile
TECTROL TERRA MOT 540 SAE 5W-40	Environmentally friendly engine oil for diesel engines with and without turbocharger, quickly biodegradable according to OECD 301 B. Ideally suited for RME and plant oil. Water hazard class 1, acc. to the water hazard classification of the German water resources act (WHG).	Application recommendations*: ACEA B3 / E3, AGCO SISU Power, also recommended for Deutz / Kubota / Zetor, API CG-4
TECTROL TURBO 4000 SAE 10W-40	SHPD high performance engine oil for all utility vehicles, processing machines and passenger cars (American and European design); rationalization opportunities for mixed fleets.	Approvals: Deutz DQC III-10, MACK EO-N, MAN M 3275-1, MB-Approval 228.3 / 229.1, MTU Oil category 2, Renault RLD-2, Volvo VDS-3 Specifications: ACEA A3/B4 / B3 / E7, API CI-4 / SL, GLOBAL DHD-1, JASO DH-1 Application recommendations*: ACEA E3 / E5, Allison C-4, CAT ECF-1-a / ECF-2, Cummins CES 20071 / CES 20072 / CES 20076 / CES 20077 / CES 20078, Iveco 18-1804 T1/T2 E7, MACK EO-M plus
TECTROL TURBO 1000 SAE 10W-40	Low-viscosity engine oil for all Otto and diesel engines with and without turbocharger, Super High-Performance Diesel engine oil (SHPD).	Approvals:  MAN M 3275-1, MB-Approval 228.3 / 229.1  Specifications:  ACEA A3/B4 / E7, API CI-4 / SL  Application recommendations*:  ACEA E3 / E5, Allison C-4, CAT ECF-1-a / ECF-2, Deutz  DQC III-10, Iveco 18-1804 T1/T2 E7, MACK EO-M plus,  MTU -Oil category 2, Renault RLD-2, Volvo VDS-3

# **ENGINE OIL FOR MIXED FLEET**

Product	Description	Performance Profile
TECTROL HDC 1540 SAE 15W-40	Super high-performance diesel engine oil (SHPD), suitable for petrol engines and highly charged diesel engines.	Approvals: Deutz DQC III-10, MAN M 3275-1, MB-Approval 228.3 / 229.1  Specifications: ACEA A3/B4 / B3 / E7, API CF / CI-4 / SL, CAT ECF-1-a, GLOBAL DHD-1, JASO DH-1  Application recommendations*: ACEA E3 / E5, Allison C-4, CAT ECF-2, Cummins CES 20076 / CES 20077 / CES 20078, MACK EO-M plus / EO-N, MTU -Oil category 2, Renault RLD-2, Volvo VDS-3
TECTROL HD 1540 SAE 15W-40	HD engine oil for all diesel and Otto engines for use under normal conditions. For vehicles with and without turbocharger.	Specifications: ACEA A3/B4 / B3 / E7, API CF / CI-4 / SL Application recommendations*: ACEA E3 / E5, Allison C-4, CAT ECF-1-a, Cummins CES 20076 / CES 20077 / CES 20078, Deutz DQC III-10, GLOBAL DHD-1, MACK EO-M plus, MAN M 3275-1, MB 228.3 / 229.1, Renault RLD-2, Volvo VDS-3

# **ENGINE OIL FOR TRUCKS**

Product	Description	Performance Profile
TECTROL SUPER TRUCK PLUS XL 530 SAE 5W-30	Premium fuel-efficiency engine oil based on state-fo-the art base oils in combination with the latest XL additive technology (low SAPS). This technology provides notable improvements in the area of fuel consumption, turbocharger depsoits, cold-temperature performance and oil consumption. Developed for commercial vehicles with turbocharger and advanced exhaust aftertreatment systems such as catalysts and particle filters.	Approvals: Deutz DQC IV-10 LA (Approval TTCD engine), MACK EO-O premium plus, MAN M 3271-1 / M 3477 / M 3575, MAN M 3677, MB-Approval 228.51, Renault RLD- 3, Scania LA, Volvo VDS-4 Specifications: ACEA E4 / E6 / E7 / E9, API CJ-4, CAT ECF-3 Application recommendations*: Cummins CES 20081, Detroit Diesel DDC 93K218, Iveco 18-1804 Classe TLS E6, MB 228.31, MTU -Oil category 2.1 / -Oil category 3.1, Renault RLD-2, Voith Retarder "B"
TECTROL SUPER TRUCK 530 SAE 5W-30	Premium low-viscosity engine oil based on fully synthetic state-of-the-art base oils. Excellent cold start properties, extremely quick lubrication, low fuel consumption.	Approvals: Cummins CES 20077, Deutz DQC IV-10, MACK EO-N, MAN M 3277, MB-Approval 228.5, MTU Oil category 3, Renault RLD-2 / RXD, Volvo VDS-3 Specifications: ACEA E4 / E7 Application recommendations*: Iveco 18-1804 / Classe TFE, Scania LDF-2
TECTROL SUPER TRUCK PLUS XL 1040 SAE 10W-40	Premium fuel-efficiency engine oil based on state-fo-the art base oils in combination with the latest XL additive technology (low SAPS). This technology provides notable improvements in the area of fuel consumption, turbocharger depsoits, cold-temperature performance and oil consumption. Developed for commercial vehicles with turbocharger and advanced exhaust aftertreatment systems such as catalysts and particle filters.	Approvals: Deutz DQC IV-10 LA (Approval TTCD engine), MACK EO-O premium plus, MAN M 3477, MB-Approval 228.51, MTU Oil category 3.1, Renault RLD-3, Scania LA, Volvo VDS-4 Specifications: ACEA E4 / E6 / E7 / E9, API CJ-4, CAT ECF-3, JASO DH-2 Application recommendations*: CNH New Holland , Cummins CES 20081, Detroit Diesel DDC 93K218, Iveco 18-1804 Classe TLS E9 / 18-1809 Classe NG2, MAN M 3271-1 / M 3575, MB 228.31 / 235.28, MTU -Oil category 2.1, Renault RLD-2, Voith Retarder "B"

## **ENGINE OIL FOR TRUCKS**

Product	Description	Performance Profile
TECTROL SUPER TRUCK PLUS 1040 SAE 10W-40	Premium fuel-efficiency engine oil based on state-of-the-art base oils, specially developed for low-emission utility vehicle diesel engines with advanced exhaust aftertreatment systems such as catalysts and particle filters.	Approvals: Deutz DQC IV-10 LA (Approval TTCD engine), MAN M 3271-1 / M 3477 / M 3575, MB-Approval 228.51, Renault RLD-3, Volvo VDS-4 Specifications: ACEA E4 / E6 / E7 / E9, API CJ-4, CAT ECF-3, JASO DH-2 Application recommendations*: CNH New Holland , Cummins CES 20081, Iveco 18-1804 Classe TLS E9 / 18-1809 Classe NG2, MACK EO-O premium plus, MB 235.28, MTU -Oil category 3.1, Scania LA, Voith Retarder "B"
TECTROL SUPER TRUCK PLUS 1040 M SAE 10W-40	High-performance low-viscosity engine oil based on state-of-the-art base oils developed for low-emission MAN and Mercedes Benz diesel engines of utility vehicles equipped with modern exhaust treatment systems such as catalytic converters and particulate filters.	Approvals: MAN M 3271-1 / M 3477, MB-Approval 228.51 Specifications: ACEA E6 / E7 / E9, API CI-4, JASO DH-2 Application recommendations*: Cummins CES 20076 / CES 20077, Deutz DQC IV-10 LA, Iveco 18-1804 Classe TLS E9, MACK EO-N, MTU -Oil category 3.1, Renault RGD / RLD-2 / RXD, Volvo VDS-3
TECTROL SUPER TRUCK LD 1040 SAE 10W-40	Fuel-saving premium low-viscosity engine oil for Scania diesel engines without diesel particulate filter (Euro 4 and Euro 5) as well as for use in Scania Euro 6 engines.	Approvals: Scania LDF-3 Specifications: ACEA E4 / E7, API CF Application recommendations*: MACK EO-N, MAN M 3277, MB 228.5, Renault RLD-2, Volvo VDS-3
SAE 10W-40	High-performance, low-viscosity engine oil generated by HC synthesis for utility vehicle diesel engines with extremely long oil change intervals, ultra high-performance diesel engine oil (UHPD). For diesel engines with and without turbocharger.	Approvals: Cummins CES 20077 / CES 20078, Deutz DQC III-10, MACK EO-N, MAN M 3277, MB-Approval 228.5, MTU Oil category 3, Renault RLD-2, Volvo VDS-3 Specifications: ACEA E4 / E7, API CI-4, GLOBAL DHD-1 Application recommendations*: ACEA E5, Detroit Diesel DDC 93K215, Iveco 18-1804, MACK EO-M plus, Renault RXD, Scania LDF-2, SDFG OM-1901A
TECTROL SUPER TRUCK VD PLUS 1040 SAE 10W-40	High-performance low-viscosity SHPD class engine oil (SHPD = Super-High-Performance-Diesel- Oil) for highly loaded diesel engines of utility vehicles and processing machines equipped with exhaust gas treatment systems such as catalytic converters and particulate filters.	Approvals: Deutz DQC III-10 LA, MACK EO-O premium plus, MAN M 3575, MB-Approval 228.31, Renault RLD-3, Volvo VDS-4 Specifications: ACEA E9, API CI-4 / CI-4 Plus / CJ-4 / SM, CAT ECF-1-a / ECF-2 / ECF-3 Application recommendations*: ACEA E5 / E7, Cummins CES 20081, MTU -Oil category 2.1
TECTROL SUPER TRUCK VD PLUS 1540 SAE 15W-40	High-performance SHPD class engine oil (SHPD = Super-High-Performance-Diesel-Oil) for highly loaded diesel engines of utility vehicles and processing machines equipped with exhaust gas treatment systems such as catalytic converters and particulate filters.	Approvals: MACK EO-O premium plus, Renault RLD-3, Volvo VDS-4 Specifications: ACEA E7 / E9, API CJ-4 / SM, CAT ECF-3 Application recommendations*: Cummins CES 20081, MAN M 3275 / M 3575, MB 228.31

# **ENGINE OIL FOR TRUCKS**

Product	Description	Performance Profile
TECTROL SUPER TRUCK 1540 SAE 15W-40	High-performance SHPD class engine oil (SHPD = super high performance diesel oil) for highly charged and highly loaded diesel engines of utility vehicles, processing machines and passenger cars.	Approvals: Deutz DQC III-10, MACK EO-N, MAN M 3275-1, MB-Approval 228.3 / 229.1, Renault RLD-2, Volvo VDS-3  Specifications: ACEA A3/B3/B4-10 / E7, API CF / CI-4 / SL, CAT ECF-1-a / ECF-2, GLOBAL DHD-1, JASO DH-1  Application recommendations*: ACEA E3 / E5, Allison C-4, Cummins CES 20071 / CES 20072 / CES 20076 / CES 20077 / CES 20078, Iveco 18-1804, MACK EO-M plus, MTU -Oil category 2

## **ENGINE OIL FOR PASSENGER CARS**

Product	Description	Performance Profile
TECTROL SPEED LL 530 SAE 5W-30	High-tech, premium-grade, low-viscosity engine oil with low SAPS additive technology. Designed for passenger cars equipped with Otto or diesel engines with and without turbocharger.	Approvals: BMW Longlife-04, MB-Approval 229.51, VW 504 00 / 507 00 Specifications: ACEA C3 Application recommendations*: ACEA A3/B4 / C2, Ford WSS-M2C 917-A, JASO DL-1, VW 501 01 / 502 00 / 503 00 / 503 01 / 505 00 / 505 01 / 506 00 / 506 01
TECTROL SPEED C1 530 SAE 5W-30	Premium high-tech low-viscosity engine oil featuring low SAPS additive technology. Developed for motor vehicles with Otto or diesel engines with and without turbocharger. Reduced HTHS, very fuel-efficient.	Specifications: ACEA C1, Ford WSS-M2C 934-B Application recommendations*: ACEA A5/B5, JASO DL-1
TECTROL SPEED C2 530 SAE 5W-30	High-tech, premium-grade, low-viscosity engine oil with low SAPS additive technology. Designed for passenger cars equipped with Otto or diesel engines with and without turbocharger.	Specifications: ACEA C2, API CF / SM Application recommendations*: ACEA A5/B5, Fiat 9.55535-S1, PSA B 71 2290
TECTROL SPEED C4 530 SAE 5W-30	Top class high-tech low-viscosity engine oil featuring low SAPS additive technology. Developed for Otto or diesel engines with and without turbocharger.	Specifications: ACEA C4 Application recommendations*: Renault RN 0720
TECTROL SPEED F 530 SAE 5W-30	Premium high tech low-viscosity engine oil featuring low SAPS additive technology. Developed for FORD passenger cars with Otto or diesel engines with and without exhaust gas treatment systems.	Specifications: ACEA A1/B1, ACEA A5/B5, API CF / SN, Ford WSS-M2C 913-D, ILSAC GF-3 / GF-4 Application recommendations*: Ford WSS-M2C 913-A / WSS-M2C 913-B / WSS-M2C 913-C, Renault RN 0700
TECTROL SPEED 530 SAE 5W-30	Top class high-tech low-viscosity engine oil featuring low SAPS additive technology. Developed for Otto or diesel engines with and without turbocharger.	Approvals:  BMW Longlife-04, MB-Approval 229.31 / 229.51 / 229.52, VW 502 00 / 505 00 / 505 01  Specifications:  ACEA A3/B4-04, ACEA C3, API CF / SN  Application recommendations*:  ACEA A3/B3 / C2, BMW Longlife-01 / Longlife 98, Ford WSS-M2C 917-A, Opel GM DEXOS 2 / GM-LL-A-025 / GM-LL-B-025, VW 500 00 / 501 01

<sup>\*</sup> Please find further recommendations and approvals in the product information sheets. The instructions of the unit's manufacturers must be observed.

# **ENGINE OIL FOR PASSENGER CARS**

Product	Description	Performance Profile
TECTROL SPEED 540 SAE 5W-40	High-performance engine oil based on state-of-the-art synthesis technology for passenger cars with Otto or diesel engines.	Approvals: MB-Approval 229.3, VW 502 00 / 505 00 Specifications: ACEA A3/B4, API CF / SN Application recommendations*: BMW Longlife-01, Opel GM-LL-B-025, PSA B 71 2296, Renault RN 0700 / RN 0710
TECTROL SPEED 1040 SAE 10W-40	Top performance engine oil based on HC synthesis base oils. For Otto or diesel engines with high load capacity, with and without turbocharger, for passenger cars.	Approvals: MB-Approval 229.1, VW 501 01 / 505 00 Specifications: ACEA A3/B3/B4-12, API CF / SL Application recommendations*: Fiat 9.55535-G2/D2, VW 500 00

# **SINGLE GRADE ENGINE OIL**

Product	Description	Performance Profile
TECTROL HDC 10 SAE 10W	HD single grade engine oil for Otto and diesel engines with and without turbocharger. Depending on the manufacturer's specifications also usable for other power units.	Approvals: MB-Approval 228.0 Specifications: ACEA E2, API CF-4 / SG Application recommendations*: Allison C-4, CAT TO-2, MAN 270, MIL - L-2104 C, ZF TE-ML 02C / 03B
TECTROL HD 10 SAE 10W	HD engine oil for Otto and diesel engines without turbocharger.	Specifications: API CC / SF
TECTROL HDC 2020 SAE 20W-20	HD single grade engine oil for Otto and diesel engines with and without turbocharger. Suitable for other units (retarders) as well, depending on the manufacturer's specifications.	Approvals: MB-Approval 228.0 Specifications: ACEA E2, API CF-4 / SG Application recommendations*: Allison C-4, CAT TO-2, MAN 270, MB 235.27, MIL -L-2104 D, Voith Retarder "A", ZF TE-ML 02C
TECTROL HD 2020 SAE 20W-20	HD engine oil for Otto and diesel engines without turbocharger.	Specifications: API CC / SF
TECTROL HDC 2030 SAE 20W-30	HD engine oil for petrol and diesel engines with and without turbocharger. Especially for use in lawn mowers.	Specifications: API CF-4 / SG Application recommendations*: Allison C-4, CAT TO-2, Deutz DQC I-02, MAN 270, MB 228.2, MIL - L-2104 D, MTU -Oil category 2, ZF TE-ML 02C / 04B
TECTROL HDC 30 SAE 30	HD single grade engine oil for Otto and diesel engines with and without turbocharger. Depending on the manufacturer's instructions also suitable for other units.	Approvals: Deutz DQC I-02, MB-Approval 228.2, MTU Oil category 2 Specifications: API CF-4 / SG Application recommendations*: Allison C-4, CAT TO-2, MAN 270, MIL - L-2104 D, ZF TE-ML 02C / 04B

# SINGLE GRADE ENGINE OIL

Product	Description	Performance Profile
TECTROL HD 30 SAE 30	HD engine oil for Otto and diesel engines without turbocharger.	Specifications: API CC / SF
TECTROL HDC 40 SAE 40	HD single grade engine oil for Otto and diesel engines with and without turbocharger. Also usable in other power units depending on the manufacturer's specifications.	Approvals: Deutz DQC I-02, MB-Approval 228.2, MTU Oil category 2 Specifications: ACEA E2, API CF-4 / SG Application recommendations*: Allison C-4, CAT TO-2, MAN 270, MB 235.12, MIL -L-2104 D, ZF TE-ML 02C / 04B

# 2-STROKE ENGINE OIL

Product	Description	Performance Profile
TECTROL 2-TAKT MIX SYN	Fully synthetic high performance oil for two-stroke engines. Low-smoke formula. Reduces deposits, prevents glow ignition. Ideally suited for petroil lubrication and oil injection.	Specifications: API TC, ISO L-EGD, JASO FC / FD Application recommendations*: TISI (Thai Industrial Standards Institute)
TECTROL 2-TAKT MIX HC	Premium 2-stroke engine oil, based on selected base oils. Excellent solubility, suitable for mixed and seperate lubrication.	Specifications: API TC, ISO L-EGD, JASO FD Application recommendations*: Use for mixed and separate lubrication

# **GAS ENGINE OIL**

Product	Description	Performance Profile
TECTROL METHAFLEXX HC PREMIUM SAE 40	High-performance, state-of-the-art engine oil with specifically selected hydrocracked base oils for stationary gas engines.	Approvals: 2G filius-serie (biogas) / KWK-serie (biogas), AGROGEN series BGA for biogas, AVS BHKW GmbH, CAT CG132 / CG170 / CG260, Deutz TR 0199-99-01213 (natural gas), Jenbacher TA 1000-1109 type 2 and 3 propellant gas class A/B(CAT); type (version A/B) propellant gas class A/B(CAT); type (version C/E) propellant gas class A/B(CAT), MAN 3271-4 (special gas), MTU Onside Energy DK-BS-0001 (BR 400 biogas, natural gas, sewer gas, sandfill gas, propane) / DK-BS-0002 (BR 4000 biogas), MWM TR 0199-99-2105, SEVA TRS-07, TEDOM TA 61-0-0281.1 (biogas, sewage, landfill gas)
TECTROL METHAFLEXX HC PLUS SAE 40	High-performance lubricant specifically designed for stationary gas engines fuelled by CNG, sewage and landfill gas. The engine oil is a zinc-free formulation and has a very high alkaline reserve enabling long oil change intervals.	Approvals: CAT CG132 / CG170 / CG260, Dreyer & Bosse, Jenbacher TA 1000-1109 type 2 and 3 propellant gas class B, MDE (series 28xx and 30xx), MTU Onside Energy DK-BS-0001 (type 400 for biogas, sewer gas and landfill gas), MWM TR 0199-99-2105, Schnell pilot injection engines built through 2005, SEnergie (MWM Brasil/Liebherr), SEVA TRS-07
TECTROL METHAFLEXX ZS PLUS SAE 40	State-of-the-art special engine oil for stationary gas engines, pilot injection gas engines and plant oil engines.	Approvals: 2G filius-serie (biogas) / KWK-serie (biogas), AGROGEN series BGA for biogas, AVS BHKW GmbH, MAN 3271-4 (special gas), Schnell pilot injection engines, SEnergie (MWM Brasil/Liebherr), SEVA TRS-07 Application recommendations*: High-performance lubricant for stationary engines for gas and vegetable oil fuel

<sup>\*</sup> Please find further recommendations and approvals in the product information sheets. The instructions of the unit's manufacturers must be observed.

# **GAS ENGINE OIL**

Product	Description	Performance Profile
TECTROL METHAFLEXX ZS SAE 40	Gas engine oil for stationary gas engines.	Approvals: Dreyer & Bosse (pilot injection engines), Schnell pilot injection engines
TECTROL METHAFLEXX HC-M PLUS SAE 40	The latest generation of special engine oil based on hydrocracked base oils with a high alkaline reserve for stationary gas engines.	Approvals: 2G filius-serie (biogas) / KWK-serie (biogas), AVS BHKW GmbH, MAN 3271-4 (special gas), SEVA TRS-07
TECTROL METHAFLEXX D PLUS SAE 40	Zinc-free high-performance lubricant particularly suited for all kinds of stationary gas engines for which the manufacturer did not specify maximum requirements regarding ash and phosphorus content. Excellent protection against wear and corrosion paired with a strong acid neutralisation capacity facilitate the use even in combination with aggressive special gases (sewage gas, landfill gas and biogas).	Approvals: 2G filius-serie (biogas) / KWK-serie (biogas), AVS BHKW GmbH, CAT CG132 / CG170 / CG260, MAN 3271-4 (special gas), MWM TR 0199-99-2105, SEVA TRS-07
TECTROL METHAFLEXX D PRO SAE 40	Gas engine oil with latest generation additive technology and selected base oils for the application in stationary gas engines. This high-performance engine oil with high alcaline reserves is especially suitable for the operation with special gases such as sewage, landfill and slurry.	Application recommendations*: Caterpillar (Bio-,Klär- und Deponiegas), Jenbacher TA 1000-1109 Series 2, 3, 4 (Version B) und 6 (Version C/E) propellant class B/C
TECTROL METHAFLEXX D SAE 40	High-performance lubricant specifically for gas engines fuelled by all sorts of fermentation gases (sewage gas, landfill gas, manure gas, etc.). Thanks to its high alkaline reserves and very active corrosion inhibitors, the engine oil provides the maximum possible protection against increased concentrations of acids and corrosive components of these gases. This means that even with highly loaded gases, long oil change intervals are ensured. Also ideally suited for non-aggressive gases such as natural gas and LPG, if an ash content of no more than 1 percent by weight is allowed by the engine manufacturer.	Approvals: 2G filius-serie (biogas) / KWK-serie (biogas), AVS BHKW GmbH, Jenbacher TA 1000-1109 type 2 and 3 propellant gas class C, MAN 3271-4 (special gas), MDE BS 3212f, MTU Onside Energy DK-BS-0001 (type 400 for biogas, sewer gas and landfill gas), SEVA TRS-07 Application recommendations*: Schnell pilot injection technology (Perkins Motoren)
TECTROL METHAFLEXX NG PREMIUM SAE 40	High performance natural gas engine oil. This zinc-free engine oil is based on selected hydrockrack base oils in combination with the latest additive technology. Through its high acid buffer and its excellent viscosity-temperature behaviour, extendend oil change intervals also under serve conditions could be provided.	Approvals:  MAN M 3271-2 (natural gas)  Application recommendations*:  Deutz TR 0199-99-01213 (natural gas), Jenbacher TA 1000-1109 Series 2,3,4 und 6 propellant class A (CAT), MTU Onside Energy DK-BS-0001 (BR 400 Erdgas), MWM TR 0199-99-2105, SEnergie (MWM Brasil/Liebherr)

## **GAS ENGINE OIL**

Product	Description	Performance Profile
TECTROL METHAFLEXX NG PRO SAE 40	Gas engine oil with latest generation additive technology and selected base oils for the application in stationary gas engines. This engine oil with low sulfated ash content is especially suitable for gas engines operated with natural gas or LPG. Also the application with special gases is possible if the OEM recommends engine oils with low ash contents.	Approvals: CAT CG132 / CG170 / CG260, MWM TR 0199-99-2105 Application recommendations*: Caterpillar (natural-, bio-, sewage- and landfill gas), Cummins (natural-, bio-, sewage- and landfill gas), Jenbacher TA 1000-1109 Series 2,3,4 (Version B) and 6 (Version C/E) propellant class A/B, Wärtsilä (natural-, bio-, sewage- and landfill gas), Waukesha (natural-, bio-, sewage- and landfill gas)
TECTROL METHAFLEXX NG PLUS SAE 40	Zinc-free, high-performance lubricant specifically for gas engines with exhaust gas catalyst and heat exchanger, but also suitable for aspiration engines with charging and lean engines and gas engines requiring a sulphate ash content of less than 0.5 mass percent.	Approvals: CAT CG132 / CG170 / CG260, Deutz TR 0199-99- 01213 (natural gas), MWM TR 0199-99-2105, SEVA TRS-07, TEDOM TA 61-0-0281.1 (natural gas, pro- pane-butane) Application recommendations*: Cummins (natural-, bio-, sewage- and landfill gas), Waukesha (natural-, bio-, sewage- and landfill gas)
TECTROL METHAFLEXX NG SAE 40	High-performance lubricant especially for gas engines with exhaust gas catalytic converter and heat exchanger, but also suitable for aspiration engines with charging and lean-burn combustion system; approved by all leading gas engine manufacturers requiring a sulphate ash content of less than 0.5 mass percent.	Approvals: 2G KWK-serie (natural gas), AVS BHKW GmbH, CAT CG132 / CG170 / CG260, Deutz TR 0199-99-01213 (natural gas), Jenbacher TA 1000-1109 type 2 and 3 propellant gas class A (CAT); type 4 (version A/B) propellant gas class A (CAT); type 6 (version C/E) propellant gas class A (CAT), MAN M 3271-2 (natural gas), MDE (series 28xx and 30xx), MTU Onside Energy DK-BS-0001 (type 400 for natural gas and propane), MWM TR 0199-99-2105, SEnergie (MWM Brasil/Liebherr), SEVA TRS-07 Application recommendations*: Cummins (natural-, bio-, sewage- and landfill gas), Waukesha (natural-, bio-, sewage- and landfill gas)
TECTROL METHAFLEXX GE-M SAE 40	Gas engine oil for stationary gas engines fuelled by special gases such as biogas, sewage and landfill gas.	Approvals: 2G filius-serie (biogas) / KWK-serie (biogas), CAT CG132 / CG170 / CG260, Jenbacher TA 1000-1109 type 2 and 3 propellant gas class B/C, MAN 3271-4 (special gas), MTU Onside Energy DK-BS-0001 (type 400 for biogas, sewer gas and landfill gas), MWM TR 0199-99-2105

# GEAR OIL FOR VEHICLE (GEARBOX AND AXLE DRIVE OIL)

Product	Description	Performance Profile
TECTROL SYNTOGEAR MM 7590 SAE 75W-90	Fully synthetic low-viscosity gear oil providing extremely long oil change intervals for highly loaded axle drives of utility vehicles.	Approvals: MAN 342 Typ S1 Specifications: API GL-5 Application recommendations*: John Deere J 11 E/G, MB 235.8, Scania STO 1:0, Volvo 97312, ZF TE-ML 05B / 07 / 08 / 12B / 16F / 17B
TECTROL SYNTOGEAR MA 7580 SAE 75W-80	Fully synthetic high-performance gear oil for manual gear boxes of utility vehicles; especially suited for manual and automatic ZF gear boxes. Provides fuel savings due to optimum gear box efficiency. Suitable for extremely long oil change intervals. Compatible with carbon synchronizers.	Approvals:  MAN 341 Typ Z4, ZF TE-ML 02L/16K - ZF001935  Specifications:  API GL-4  Application recommendations*:  also recommended for DAF / Eaton / Iveco / Renault,  MAN 341 Typ E3, Volvo 97305, ZF TE-ML 01L / 08

# GEAR OIL FOR VEHICLE (GEARBOX AND AXLE DRIVE OIL)

Product	Description	Performance Profile
TECTROL SYNTOGEAR 7590 SAE 75W-90	Fully synthetic high-performance low-viscosity gear oil providing LS properties and high shear stability for manual gearboxes and axle gears of passenger cars with and without multi-plate limited slip differentials. Excellent shifting comfort, outstanding wear protection.	Specifications: API GL-4 / GL-5 / LS Application recommendations*: VW G50 / G51
TECTROL MULTIGEAR PLUS 8090 SAE 80W-90	EP universal, multi-grade gear oil generated by HC synthesis with low viscosity for all gears filled with SAE oil classes SAE 80W, SAE 85W / 85W-90 and SAE 90.	Approvals:  MAN 341 Typ E2 / 341 Typ Z2 / 342 Typ M2, ZF TE-ML 02B/05A/12L/12M/16B/17B/19B/21A - ZF001160  Specifications:  API GL-4 / GL-5  Application recommendations*:  Case MS 1316, CNH New Holland NH 520 A, Ford M2C 197-A, John Deere J 11 E, MB 235.0, Scania STO 1:0, SDFG OP 1705, Steyr B-101, ZF TE-ML 07 / 08 / 12E
TECTROL MULTIGEAR EP 8090 SAE 80W-90	EP multi grade gear oil for manual gear boxes and axle drives of passenger cars, utility vehicles, construction and agricultural vehicles.	Specifications: API GL-4 / GL-5 Application recommendations*: MAN 341 Typ Z1 / 342 Typ M1, MB 235.0 / 235.1
TECTROL MULTIGEAR HYP 90 SAE 90	EP gear oil for highly loaded hypoid axle drives, all other spur gears and bevel gears, mechanical steering gears as well as change speed gearboxes of utility vehicles, passenger cars and processing machines.	Approvals: MAN 342 Typ M1, MB-Approval 235.0, ZF TE-ML 16C/17B/19B/21A - ZF001159 Specifications: API GL-5 Application recommendations*: Ford M2C 9102-A, John Deere J 11 E, Opel 1942387, VW TL 727, ZF TE-ML 05A / 07 / 08
TECTROL MULTIGEAR LS 90 SAE 90	LS hypoid transmission oil ( LS = Limited Slip) for axles with and without limited slip differentials in utility vehicles and processing machines.	Approvals: ZF TE-ML 05C/12C/16E/21C - ZF001167 Specifications: API GL-5 / LS Application recommendations*: also recommended for Liebherr, CNH New Holland NH 520 B, Ford M2C 104-A, John Deere J 11 F, MIL - L-2105 D
TECTROL MULTIGEAR 85140 SAE 85W-140	EP transmission oil for highly stressed hypoid axle transmissions as well as all manual and auxiliary transmissions of vehicles and pro- cessing machines.	Specifications: API GL-5 Application recommendations*: API GL-4, MAN 342 Typ M1, MIL - L-2105 D, ZF TE-ML 05A / 07A / 12E / 16C / 16D / 19B / 21A
TECTROL UNIGEAR 90 SAE 90	High performance multi-purpose gear oil for synchronised and non-synchronised gear boxes as well as auxiliary gears and axles of utility vehicles and passenger cars with corresponding manufacturer's instructions.	Specifications: API GL-4 Application recommendations*: also recommended for Eaton, MAN 341 Typ E1 / 341 Typ Z1, MB 235.1, ZF TE-ML 02A / 16A / 17A / 19A
TECTROL UNIGEAR 80 SAE 80W	High-performance multi-purpose gear oil for synchronous and asynchronous manual gear boxes, auxiliary drives and axles of utility vehicles and passenger cars with corresponding manufacturer specifications.	Approvals: MB-Approval 235.1, ZF TE-ML 17A - ZF001162 Specifications: API GL-4 Application recommendations*: also recommended for Eaton, BMW 81 22 9 407 052 / 81 22 9 407 053, Ford M2C 9008-A, MAN M 341 Typ E1/341 Z2 (bis Ende 2015), VW TL 726, ZF TE-ML 08 (02B bis Ende 2014)

# **AUTOMATIC GEAR OIL (ATF)**

Product	Description	Performance Profile
TECTROL ATF 4000	Super High Performance ATF automatic transmission fluid for utility vehicles, passenger cars and processing machines. The AT fluid corresponds to the DEXRON III performance level; it is tried and tested in various applications such as automatic transmissions, power steering and hydraulic systems.	Approvals:  MAN 339 Typ L1 / 339 Typ V1 / 339 Typ Z1, MB-Approval 236.1, ZF TE-ML 04D/14A - ZF001907  Application recommendations*:  Allison C-4 / TES-389, CAT TO-2, DEXRON II D / II E / III G / III H, Ford Mercon, GM Motors Type A Suffix A (TASA), MB 236.5, Voith 55.6335.xx, Volvo 97341, ZF TE-ML 02F / 03D / 09B / 11B / 17C
TECTROL ATF 3000	High performance ATF Automatic Transmission Fluid for utility vhicles, passenger cars and processing machines. The AT fluid corresponds to the DEXTON II (D) performance level, it is tried and tested in various applications such as automatic transmissions, power steering and hydraulic systems.	Approvals: MAN 339 Typ V1 / 339 Typ Z1, MB-Approval 236.1, ZF TE-ML 04D/14A - ZF001908 Application recommendations*: Allison C-4, CAT TO-2, DEXRON II D, Ford Mercon, GM Motors Type A Suffix A (TASA), MB 236.5, Voith 55.6335.xx, ZF TE-ML 02F / 03D / 09B / 11B / 17C

Product	Description	Performance Profile
TECTROL TERRA HYD SUPER SYN ISO VG 32–68	Environmentally friendly multi- grade hydraulic oil based on saturated synthetic esters mainly made from renewable resources in particular for use in mobile hydraulic power units operating in environmentally sensitive areas as well as other hydraulic power units.	Specifications: DIN 51 519 VG 46 / ISO 15380 HEES, ISO 3448 ISO VG 46 Application recommendations*: also recommended for Bosch Rexroth / Kramer Allrad / Liebherr / Palfinger / Ponsse / Sauer Danfoss / Timberjack / Valmet, Case MS 1230, CAT BF-1, CNH New Holland NH 636 BS, DIN 51 524-2 HLP / 51 524-3 HVLP, Fendt KDM 28/2006
TECTROL TERRA HYD SUPER S ISO VG 32–68	Environmentally friendly multi- grade hydraulic oil based on saturated synthetic esters mainly made from renewable resources in particular for use in mobile hydraulic power units operating in environmentally sensitive areas as well as other hydraulic power units.	Specifications: DIN 51 519 VG 46 / ISO 15380 HEES, ISO 3448 ISO VG 46 Application recommendations*: DIN 51 524-2 HLP / 51 524-3 HVLP
TECTROL TERRA HYD S ISO VG 32–68	Environmentally friendly multi- grade hydraulic oil based on esters for agricultural, forestry, con- struction machines and municipal equipment – quickly biodegradable. Water hazard class "not hazardous to water"	Specifications: DIN 51 519 VG 46 / ISO 15380 HEES, ISO 3448 ISO VG 46 Application recommendations*: DIN 51 524-2 HLP / 51 524-3 HVLP
TECTROL TERRA HYD 40 ISO VG 32–68	Environmentally friendly hydraulic oil based on native plant oils – quickly biodegradable	Specifications: DIN 51 519 VG 46 / ISO 15380 HETG Application recommendations*: DIN 51 524-2 HLP / 51 524-3 HVLP

#### **Product** Description **Performance Profile TECTROL** HVLP high-performance multi-Specifications: **HYDRAFLEXX XL PRO 32** grade hydraulic oil based on DIN 51 524-3 HVLP, ISO 6743-4 HV specially hydrogenated base oils ISO VG 22-46 Application recommendations\*: generated by HC synthesis featuralso recommended for Bosch Rexroth / Terex, Caterpillar recommended for hydraulic systems, Cincinnati Milacron ing new additive technology, Very high viscosity index, excellent shear P68 / P69 / P70, Denison HFO - T6H20C: Hybrid-Pumstability, outstanding wear protecpe, SAE 10W / 15W / 20W-20, U.S. Steel 127 / 136, tion and oxidation resistance. Ide-Vickers 35VQ-25 / V104-C: Vane Pumps ally suited for low starting temperatures, prevents stick-slip. Energy savings, increase in efficiency. **TECTROL** HVLP high-performance multi-Specifications: **HYDRAFLEXX XL PRO 46** DIN 51 524-3 HVLP, ISO 6743-4 HV grade hydraulic oil based on ISO VG 32-68 specially hydrogenated base oils Application recommendations\*: generated by HC synthesis using also recommended for Bosch Rexroth / Terex, Caterpillar XLnew additive technology. Very high recommended for hydraulic systems, Cincinnati Milacron viscosity index, excellent shear sta-P68 / P69 / P70, Denison HFO - T6H20C: Hybrid-Pumpe, SAE 10W / 10W-30 / 15W / 15W-30 / 20W-20, U.S. bility, outstanding wear protection and oxidation resistance. Ideally Steel 127 / 136, Vickers 35VQ-25 / V104-C: Vane Pumps suited for low starting temperatures, prevents stick-slip. Energy-savings; increase in efficiency. **TECTROL** HVLP high-performance multi-**Specifications: HYDRAFLEXX XL 32** grade hydraulic oil based on DIN 51 524-3 HVLP, ISO 6743-4 HV ISO VG 22-46 specially hydrogenated base oils Application recommendations\*: generated by HC synthesis using also recommended for Bosch Rexroth / Terex, Caterpillar new additive technology. Very recommended for hydraulic systems, Cincinnati Milacron high viscosity index, excellent P68 / P69 / P70, Denison HFO - T6H20C: Hybrid-Pumpe, SAE 10W / 15W / 20W-20, U.S. Steel 127 / 136, shear stability, outstanding wear protection and oxidation resistance. Vickers 35VQ-25 / V104-C: Vane Pumps Ideally suited for low starting temperatures. Energy-saving; increase efficiency. **TECTROL** HVLP high-performance multi-**Specifications:** grade hydraulic oil based on **HYDRAFLEXX XL 46** DIN 51 524-3 HVLP, ISO 6743-4 HV specially hydrogenated base oils ISO VG 32-68 Application recommendations\*: generated by HC synthesis using also recommended for Bosch Rexroth / Terex. Caterpillar XLnew additive technology. Very recommended for hydraulic systems, Cincinnati Milacron high viscosity index, excellent P68 / P69 / P70, Denison HFO - T6H20C: Hybrid-Pumpe, SAE 10W / 10W-30 / 15W / 15W-30 / 20W-20, U.S. shear stability, outstanding wear protection and oxidation resistance. Steel 127 / 136, Vickers 35VQ-25 / V104-C: Vane Pumps Ideally suited for low starting temperatures. Saves energy, increases efficiency. Detergent (HVLP-D) universal **TECTROL Specifications:** HC 530 multi-grade hydraulic oil generated DIN 51 524-3 HVLP (detergent), ISO 11158 HV ISO VG 22-68 by HC synthesis for all hydraulic Application recommendations\*: **SAE 5W-30** systems in vehicles and processing Vickers V 104 C according to DIN 51389-2 HC machines. High viscosity index (HVI), very favourable viscosity/ temperature properties, good rationalization opportunities. Excellent additivation improves the

protection against corrosion and wear as well as the ageing stability.

Product	Description	Performance Profile
TECTROL HVLP-D 46 ISO VG 46 (32-68)	Detergent (HVLP-D) universal multipurpose hydraulic fluid for all hydraulic systems in vehicles and machines. High viscosity index (HVI), excellent viscosity-temperature properties. Suitable for product-rationalization. Outstanding additivation for the improvement of the corrosion and wear protection as well as ageing-resistance.	Specifications: DIN 51 524-3 HVLP (detergent, except demulsibility according to DIN 51599)
TECTROL HVLP-D 68 ISO VG 68 (46-100)	Detergent (HVLP-D) universal multipurpose hydraulic fluid for all hydraulic systems in vehicles and machines. High viscosity index (HVI), excellent viscosity-temperature properties. Suitable for product-rationalization. Outstanding additivation for the improvement of the corrosion and wear protection as well as ageing-resistance.	Specifications: DIN 51 524-3 HVLP (detergent, except demulsibility according to DIN 51599)
TECTROL HVLP 32 ISO VG 32	HVLP lubricating and hydraulic oil with additives enhancing the degree of protection against corrosion and wear as well as the ageing stability. High viscosity index (HVI), very favourable viscosity/temperature properties.	Specifications: DIN 51 524-3 HVLP Application recommendations*: AFNOR NF E 48-603 HV, ASLE 70-1 / 70-2 / 70-3, CETOP RP 91 H (HM, HV), David Brown S1.53.101, Denison HF2, DIN 51 524-2 HLP, SEB 181222, U.S. Steel 126 / 127, VDMA 24318, Vickers I-286 S3 / M-2950-S
TECTROL HVLP 46 ISO VG 46	HVLP lubricating and hydraulic oil with additives enhancing the corrosion and wear protection and the lifetime stability. High viscosity index (HVI), very good viscosity/temperature properties.	Specifications: DIN 51 524-3 HVLP Application recommendations*: AFNOR NF E 48-603 HV, ASLE 70-1 / 70-2 / 70-3, CETOP RP 91 H (HM, HV), David Brown S1.53.101, Denison HF2, DIN 51 524-2 HLP, SEB 181222, U.S. Steel 126 / 127, VDMA 24318, Vickers I-286 S3 / M-2950-S
TECTROL HVLP 68 ISO VG 68	HVLP lubricating and hydraulic oil with additives enhancing the degree of protection against corrosion and wear as well as the ageing resistance. High viscosity index (HVI), very favourable viscosity/temperature properties.	Specifications: DIN 51 524-3 HVLP Application recommendations*: AFNOR NF E 48-603 HV, ASLE 70-1 / 70-2 / 70-3, CETOP RP 91 H (HM, HV), David Brown S1.53.101, Denison HF2, DIN 51 524-2 HLP, SEB 181222, U.S. Steel 126 / 127, VDMA 24318, Vickers I-286 S3 / M-2950-S
TECTROL MR 5 ISO VG 22	Multi-purpose hydraulic fluid (HLP-D) with detergent and emulsifying properties, also usable as guideway/slideway oil, very favourable viscosity/temperature behaviour.	Specifications: DIN 51 524-2 HLP (detergent, except demulsibility according to DIN 51599), ISO 6743-4 HM Application recommendations*: DIN 51 524-2 HLP-D (detergent)
TECTROL MR 10 ISO VG 32	Multi-purpose hydraulic fluid (HLP-D) with detergent and emulsifying properties, can also be used as guideway/slideway oil, very favourable viscosity/temperature properties.	Specifications: DIN 51 524-2 HLP (detergent, except demulsibility according to DIN 51599), ISO 6743-4 HM Application recommendations*: DIN 51 524-2 HLP-D (detergent)

 $<sup>^{*}</sup>$  Please find further recommendations and approvals in the product information sheets. The instructions of the unit's manufacturers must be observed.

Product	Description	Performance Profile
TECTROL MR 15 ISO VG 46	Multi-purpose hydraulic fluid (HLP-D) with detergent and emulsifying properties; can also be used as guideway/slideway oil; very favourable viscosity/temperature properties.	Specifications: DIN 51 524-2 HLP (detergent, except demulsibility according to DIN 51599), ISO 6743-4 HM Application recommendations*: DIN 51 524-2 HLP-D (detergent)
TECTROL HLPD 22 ISO VG 22	Detergent and dispersing hydraulic oil with additives enhancing the degree of protection against corrosion and wear and the ageing stability.	Specifications: DIN 51 524-2 HLP (detergent) Application recommendations*: Denison Filterability TP 02100, MAN N 698
TECTROL HLPD 32 ISO VG 32	Zinc-free, detergent and dispersing hydraulic oil containing additives which improve corrosion and wear protection as well as ageing stability.	Specifications: DIN 51 524-2 HLP (detergent)
TECTROL HLPD 46 ISO VG 46	Zinc-free detergent and dispersing hydraulic oil with additives improving corrosion and wear protection and ageing stability.	Specifications: DIN 51 524-2 HLP (detergent)
TECTROL HLPD 68 ISO VG 68	Zinc-free detergent and dispersing hydraulic oil with additives improving the protection against corrosion and wear as well as the ageing stability.	Specifications: DIN 51 524-2 HLP (detergent)
TECTROL HLP 10 ISO VG 10	Lubricant and hydraulic oil with additives enhancing the degree of protection against corrosion and wear as well as the ageing stability.	Specifications: DIN 51 524-2 HLP Application recommendations*: AFNOR NF E 48-603 (HM, HV), also recommended for Bosch Rexroth, CETOP RP 91 H (HM, HV), Denison Fil- terability TP 02100, Hoesch HWN 2333, SIS SS 155434, Sperry Vickers M2950-S and I-286-S, U.S. Steel 126 / 127
TECTROL HLP 22 ISO VG 22	Lubricating and hydraulic oil with additives enhancing the degree of protection against corrosion and wear and the lifetime stability.	Specifications: DIN 51 524-2 HLP Application recommendations*: AFNOR NF E 48-603 (HM, HV), also recommended for Bosch Rexroth, CETOP RP 91 H (HM, HV), Denison Filterability TP 02100, Hoesch HWN 2333, SIS SS 155434, Sperry Vickers M2950-S and I-286-S, U.S. Steel 126 / 127
TECTROL HLP 32 ISO VG 32	Lubricating and hydraulic oil containing additives to enhance the protection against corrosion and wear as well as the ageing resistance.	Specifications: DIN 51 524-2 HLP Application recommendations*: AFNOR NF E 48-603 (HM, HV), also recommended for Bosch Rexroth, CETOP RP 91 H (HM, HV), Denison Filterability TP 02100, Hoesch HWN 2333, SIS SS 155434, Sperry Vickers M2950-S and I-286-S, U.S. Steel 126 / 127
TECTROL HLP 46 ISO VG 46	Lubricating and hydraulic oil with additives enhancing the corrosion and wear protection and the lifetime stability.	Specifications: DIN 51 524-2 HLP Application recommendations*: AFNOR NF E 48-603 (HM, HV), also recommended for Bosch Rexroth, CETOP RP 91 H (HM, HV), Denison Filterability TP 02100, Hoesch HWN 2333, SEB 181222, SIS SS 155434, Sperry Vickers M2950-S and I-286-S, U.S. Steel 126 / 127

Product	Description	Performance Profile
TECTROL HLP 68 ISO VG 68	Lubricant and hydraulic fluid with additives enhancing the degree of protection against corrosion and wear as well as the ageing stability.	Specifications: DIN 51 524-2 HLP Application recommendations*: AFNOR NF E 48-603 (HM, HV), also recommended for Bosch Rexroth, CETOP RP 91 H (HM, HV), Denison Filterability TP 02100, Hoesch HWN 2333, SIS SS 155434, Sperry Vickers M2950-S and I-286-S, U.S. Steel 126 / 127
TECTROL HLP 100 ISO VG 100	Lubricating and hydraulic oil with additives enhancing the degree of protection against corrosion and wear as well as the ageing stability.	Specifications: DIN 51 524-2 HLP Application recommendations*: AFNOR NF E 48-603 (HM, HV), also recommended for Bosch Rexroth, CETOP RP 91 H (HM, HV), Denison Fil- terability TP 02100, Hoesch HWN 2333, SIS SS 155434, Sperry Vickers M2950-S and I-286-S, U.S. Steel 126 / 127
TECTROL FOOD HYDRAULIKÖL HVLP 32 ISO VG 32	Fully synthetic hydraulic oil with high-quality additives developed for use in the food, beverage, feed and packaging industry.	Approvals: NSF H1 147629 Specifications: DIN 51 524-3 HVLP
TECTROL FOOD HYDRAULIKÖL HVLP 46 ISO VG 46	Fully synthetic hydraulic oil with high-quality additives, developed for use in the food, beverage, feed and packaging industry.	Approvals: NSF H1 147630 Specifications: DIN 51 524-3 HVLP
TECTROL FOOD HYDRAULIKÖL HVLP 68 ISO VG 68	Fully synthetic hydraulic oil with high-quality additives, developed for use in the food, beverage, feed and packaging industry.	Approvals: NSF H1 147631 Specifications: DIN 51 524-3 HVLP
TECTROL FOOD HYDRAULIKÖL HLP 32 ISO VG 32	Hydraulic oil based on medical white oil and high-quality additives, especially developed for the food processing industry for use in hydraulic systems with possible food contact.	Approvals: NSF H1 147626 Specifications: DIN 51 524-2 HLP
TECTROL FOOD HYDRAULIKÖL HLP 46 ISO VG 46	Hydraulic oil based on medical white oil and high-quality additives, especially developed for the food processing industry for use in hydraulic systems with possible food contact.	Approvals: NSF H1 147627 Specifications: DIN 51 524-2 HLP
TECTROL FOOD HYDRAULIKÖL HLP 68 ISO VG 68	Hydraulic oil based on medical white oil and high-quality additives; especially developed for the food processing industry for use in hydraulic systems with possible food contact.	Approvals: NSF H1 147628 Specifications: DIN 51 524-2 HLP

 $<sup>^{*}</sup>$  Please find further recommendations and approvals in the product information sheets. The instructions of the unit's manufacturers must be observed.

# GREASE

Product	Description	Performance Profile
TECTROL TERRA SPEZIAL-FETT 2 S NLGI 2	Quickly biodegradable multi- purpose long-term grease based on synthetic esters for the lubrication of all kinds of roller and friction bearings including wheel hubs. Use if there is a hazard to water or soil.	Specifications: DIN 51 502 KPE 2 K-40, ISO -L-X-DCEB 2 Application recommendations*: Application temperature range -40 °C to +120 °C, MAN 283 Li-P 2-B
TECTROL TERRA MULTI-FETT 1 N NLGI 1	Calcium saponified grease based on rapeseed oil for the loss lubrication of agricultural, forestry and construction machines and municipal equipment – environmentally friendly due to its quick biodegradability, used e.g. in purification plants, lock gates, chains, etc.	Specifications: DIN 51 502 KX 1 C-25, ISO -L-X-BAEA 1 Application recommendations*: Application temperature range -20 °C to +70 °C
TECTROL TERRA MULTI-FETT 2 N NLGI 2	Calcium saponified grease based on rapeseed oil for the loss lubrication of agricultural, forestry and construction machines and municipal equipment – environmentally friendly due to its quick biodegradability, used e.g. in purification plants, lock gates, chains, etc.	Specifications: DIN 51 502 KX 2 C-20, ISO -L-X-BAEA 2 Application recommendations*: Application temperature range -20 °C to +70 °C
TECTROL SPEZIAL-FETT LX 2 NLGI 2	Complex lithium saponified, multi- purpose EP grease. High grease film strength and good adhesive prop- erties reduce wear and friction to a minimum. Long-term lubrication of roller and friction bearings in pack- ing machines, passenger and utility vehicles. Suitable for high thermal and mechanical loads.	Specifications: DIN 51 502 KP 2 P-30, ISO -L-X-CEHB 2 Application recommendations*: Application temperature range -30 °C to +160 °C, short term +200 °C
TECTROL SPEZIAL-FETT CX 2 NLGI 2	Complex calcium saponified + EP, temperature-stable special grease, highly water-resistant, acid- and alkaline-stable, for bearings with high loads, suitable for use in central lubrication systems, preferable use in rubber, tyre, steel, stone, soil and chemical industries.	Specifications: DIN 51 502 KP 2 N-30, ISO -L-X-CDHB 2 Application recommendations*: Application temperature range -30 °C to +140 °C
TECTROL SPEZIAL-FETT CX 1 NLGI 1	Complex calcium saponified EP grease, highly water-resistant, temperature-stable special grease, acid- and alkaline-stable, for bearings with high loads, suitable for use in central lubrication systems, preferable use in rubber, tyre, steel, stone, soil and chemical industries.	Specifications: DIN 51 502 KP 1 N-30, ISO -L-X-CDHB 2 Application recommendations*: Application temperature range -30 °C to +140 °C
TECTROL MULTI-FETT H 443-HD 88 NLGI 2-3	High-grade, temperature-stable, multi-purpose grease based on lithium soap for the lubrication of roller and friction bearings, especially for irregular and highly fluctuating loads, high adhesion, very good sealing properties.	Specifications: DIN 51 502 KP 3/2 N-30, ISO -L-X-CDEB 3/2 Application recommendations*: also recommended for Flender / RWE Rheinbraun / SKF, Application temperature range -30 °C to +140 °C

## **GREASE**

Product	Description	Performance Profile
TECTROL MULTI-FETT RED NLGI 2	All-round grease based on a special combination of lithium and calcium soaps with selected additives which is particularly characterized by its temperature stability, pressure and work resistance. Very good sealing of lubrication points against the penetration of dirt and moisture, excellent long-term wear protection of roller and friction bearings, optimized relubrication intervals.	Specifications: DIN 51 502 KP 2 K-20, ISO -L-X-BCHB 2 Application recommendations*: Application temperature range -25 °C to +130 °C
TECTROL MULTI-FETT CAL 2 NLGI 2	Performance-optimized, long-term adhesive grease based on special calcium soap, meets the highest corrosion protection and water and salt water resistance standards. Suitable for long-term lubrication of industrial, construction and agricultural machines.	Specifications: DIN 51 502 KP 2 K-30, ISO -L-X-CCHB 2 Application recommendations*: Application temperature range -30 °C to +120 °C
TECTROL MULTI-FETT LZR 2 H NLGI 2	Lithium grease with long-term corrosion inhibitor and EP additives, especially suited for central lubrication systems, Hytrel-compatible, for all roller and friction bearings and central lubrication systems in utility vehicles and processing machines, with distinctive corrosion protection also in the presence of salt water.	Specifications: DIN 51 502 KP 2 N-30, ISO -L-X-CDIB 2  Application recommendations*: also recommended for Beka Max / Lincoln / Willi Vogel, Application temperature range -30 °C to +140 °C
TECTROL MULTI-FETT EP 2 NLGI 2	High-quality EP multi-purpose grease based on lithium soap with excellent low-temperature properties. Universally usable for various grease lubrication points of passenger cars, utility vehicles, construction and agricultural machines.	Approvals: MB-Approval 267.0 Specifications: DIN 51 502 KP 2 K-40, ISO -L-X-DCEB 2 Application recommendations*: Application temperature range -40 °C to +120 °C
TECTROL MULTI-FETT NLGI 2	Lithium-saponified multi-purpose grease for use in all roller and friction bearings of vehicles, agricultural machines and construction machines.	Specifications: DIN 51 502 K 2 K-30, ISO -L-X-CCEA 2 Application recommendations*: Application temperature range -30 °C to +120 °C
TECTROL MULTI-FETT FLM 2 NLGI 2	Universal premium-performance grease providing excellent wear protection (MoS2) for greasing points of utility vehicles and processing machines. Proved to be excellent under extreme loads, e.g. in construction site traffic.	Specifications: DIN 51 502 KPF 2 N-30, ISO -L-X-CDEB 2 Application recommendations*: Application temperature range -30 °C to +140 °C
TECTROL MULTI-GETRIEBEFLIESS- FETT NLGI 0	Sodium saponified, long-fibred semi-fluid grease for gears providing wear protection.	Specifications: DIN 51 502 GP 0 H-30, ISO -L-X-CBBB 0 Application recommendations*: Application temperature range -30 °C to +100 °C

 $<sup>^{*}</sup>$  Please find further recommendations and approvals in the product information sheets. The instructions of the unit's manufacturers must be observed.

# **GREASE**

Product	Description	Performance Profile
TECTROL FOOD HOCHLEISTUNGS- SCHMIERFETT NLGI 2	Complex aluminium saponified grease containing white solid lubricants for use in the food processing industry under extremely difficult conditions. Provides emergency running properties. Food contact is possible.	Approvals: NSF H1 147636 Specifications: DIN 51 502 KHC PF2 N-40, ISO -L-X-DDHB 2 Application recommendations*: Application temperature range -40 °C to +150 °C, short term +200 °C
TECTROL FOOD MEHRZWECKFETT NLGI 2	High-quality, partly synthetic complex aluminium saponified grease containing partly synthetic base oils, additives against wear, oxidation and corrosion as well as EP additives. Particularly suited for handling food.	Approvals: NSF H1 147640 Specifications: DIN 51 502 KP 2 K-30, ISO -L-X-CCHB 2 Application recommendations*: Application temperature range -30 °C to +130 °C, short term +160 °C

# **INDUSTRIAL GEAR OIL**

Product	Description	Performance Profile
TECTROL GEAR CLP PG 220 ISO VG 220	Fully synthetic industrial gear oil based on selected polyglycols. They ensure a high ageing and temperature stability.	Approvals: Siemens / Flender T 7300 Specifications: AGMA 9005-E02 EP, DIN 51 517-3 CLP-PG, ISO 6743-6 and ISO 12925-1 CKC/CKD/CKE/(CKS)/CKT Application recommendations*: Note: Do not mix with mineral oils!
TECTROL GEAR CLP PG 320 ISO VG 320	Fully synthetic industrial gear oil based on selected polyglycols. They ensure a high ageing and temperature stability.	Approvals: Siemens / Flender T 7300 Specifications: AGMA 9005-E02 EP, DIN 51 517-3 CLP-PG, ISO 6743-6 and ISO 12925-1 CKC/CKD/CKE/(CKS)/CKT Application recommendations*: Note: Do not mix with mineral oils!
TECTROL GEAR CLP PG 460 ISO VG 460	Fully synthetic industrial gear oil based on selected polyglycols. They ensure a high ageing and temperature stability.	Approvals: Siemens / Flender T 7300 Specifications: AGMA 9005-E02 EP, DIN 51 517-3 CLP-PG, ISO 6743-6 and ISO 12925-1 CKC/CKD/CKE/(CKS)/CKT Application recommendations*: Note: Do not mix with mineral oils!
TECTROL GEAR CLP SYN 220 ISO VG 220	Fully synthetic industrial gear oil for an economical supply of industrial gears.	Specifications: AGMA 9005-E02 EP, AIST 224, David Brown S1.53.101, DIN 51 517-3 CLP, ISO 6743-6 and ISO 12925-1 CKC/ CKD/CKE Application recommendations*: Siemens / Flender T 7300
TECTROL GEAR CLP SYN 320 ISO VG 320	Fully synthetic industrial gear oil for an economical supply of industrial gears.	Approvals: Siemens / Flender T 7300 Specifications: AGMA 9005-E02 EP, AIST 224, David Brown S1.53.101, DIN 51 517-3 CLP, ISO 6743-6 and ISO 12925-1 CKC/ CKD/CKE

# **INDUSTRIAL GEAR OIL**

Product	Description	Performance Profile
TECTROL GEAR CLP PLUS 150 ISO VG 150	Latest-generation industrial gear oil based on mineral oils with excellent EP (extreme pressure) characteristics for use in highly loaded spur gear, bevel gear and worm gear transmissions with recirculating oil lubrication.	Approvals: Siemens / Flender T 7300 Specifications: AGMA 9005-E02 EP, AIST 224, David Brown S1.53.101, DIN 51 517-3 CLP, ISO 6743-6 and ISO 12925-1 CKC/ CKD
TECTROL GEAR CLP PLUS 220 ISO VG 220	Latest-generation industrial gear oil based on mineral oils with excellent EP (extreme pressure) characteristics for use in highly loaded spur gear, bevel gear and worm gear transmissions with recirculating oil lubrication.	Approvals: Siemens / Flender T 7300 Specifications: AGMA 9005-E02 EP, AIST 224, David Brown S1.53.101, DIN 51 517-3 CLP, ISO 6743-6 and ISO 12925-1 CKC/ CKD
TECTROL GEAR CLP PLUS 320 ISO VG 320	Latest-generation industrial gear oil based on mineral oils with excellent EP (extreme pressure) characteristics for use in highly loaded spur gear, bevel gear and worm gear transmissions with recirculating oil lubrication.	Approvals: Siemens / Flender T 7300 Specifications: AGMA 9005-E02 EP, AIST 224, David Brown S1.53.101, DIN 51 517-3 CLP, ISO 6743-6 and ISO 12925-1 CKC/ CKD
TECTROL GEAR CLP PLUS 460 ISO VG 460	Latest-generation industrial gear oil based on mineral oils with excellent EP (extreme pressure) characteristics for use in highly loaded spur gear, bevel gear and worm gear transmissions with recirculating oil lubrication.	Approvals: Siemens / Flender T 7300 Specifications: AGMA 9005-E02 EP, AIST 224, David Brown S1.53.101, DIN 51 517-3 CLP, ISO 6743-6 and ISO 12925-1 CKC/ CKD
TECTROL GEAR CLP 100 ISO VG 100	Industrial gear oil based on mineral oils with EP-AW/additives for use in spur gear, bevel gear and worm gear transmissions with recirculating oil lubrication.	Specifications: DIN 51 517-3 CLP, ISO 6743-6 and ISO 12925-1 CKC/CKD
TECTROL GEAR CLP 150 ISO VG 150	Industrial gear oil based on mineral oils with EP-AW/additives for use in spur gear, bevel gear and worm gear transmissions with recirculating oil lubrication.	Specifications: DIN 51 517-3 CLP, ISO 6743-6 and ISO 12925-1 CKC/ CKD
TECTROL GEAR CLP 220 ISO VG 220	Industrial gear oil based on mineral oils with EP-AW/additives for use in spur gear, bevel gear and worm gear transmissions with recirculating oil lubrication.	Specifications: DIN 51 517-3 CLP, ISO 6743-6 and ISO 12925-1 CKC/ CKD
TECTROL GEAR CLP 320 ISO VG 320	Industrial gear oil based on mineral oils with EP-AW/additives for use in spur gear, bevel gear and worm gear transmissions with recirculating oil lubrication.	Specifications: DIN 51 517-3 CLP, ISO 6743-6 and ISO 12925-1 CKC/CKD
TECTROL GEAR CLP 460 ISO VG 460	Industrial gear oil based on mineral oils with EP-AW/additives for use in spur gear, bevel gear and worm gear transmissions with recirculating oil lubrication.	Specifications: DIN 51 517-3 CLP, ISO 6743-6 and ISO 12925-1 CKC/ CKD

 $<sup>^{*}</sup>$  Please find further recommendations and approvals in the product information sheets. The instructions of the unit's manufacturers must be observed.

# **INDUSTRIAL GEAR OIL**

Product	Description	Performance Profile
TECTROL FOOD INDUSTRIE- GETRIEBEÖL CLP 150 ISO VG 150	Fully synthetic high-performance gear oils, especially developed for use in the food processing industry.	Approvals: NSF H1 147632 Specifications: DIN 51 517-3 CLP
TECTROL FOOD INDUSTRIE- GETRIEBEÖL CLP 220 ISO VG 220	Fully synthetic high-performance gear oils, especially developed for use in the food processing industry.	Approvals: NSF H1 147633 Specifications: DIN 51 517-3 CLP
TECTROL FOOD INDUSTRIE- GETRIEBEÖL CLP 320 ISO VG 320	Fully synthetic high-performance gear oils, especially developed for use in the food processing industry.	Approvals: NSF H1 147634 Specifications: DIN 51 517-3 CLP
TECTROL FOOD INDUSTRIE- GETRIEBEÖL CLP 460 ISO VG 460	Fully synthetic high-performance gear oils especially developed for use in the food processing industry.	Approvals: NSF H1 147635 Specifications: DIN 51 517-3 CLP

# **COMPRESSOR OIL**

Product	Description	Performance Profile
TECTROL VERDICHTERÖL 100 ISO VG 100	Air compressor oil based on selected mineral base oils for piston, turbo and rotary compressors according to DIN 51506Typ VB, VC.	Specifications: DIN 51 506 VB / 51 506 VC
TECTROL FOOD KOMPRESSOREN- ÖL VDL 46 ISO VG 46	Physiologically harmless, fully synthetic compressor oil for the food processing industry.	Approvals: NSF H1 147637 Specifications: DIN 51 506 VCL/VDL
TECTROL FOOD KOMPRESSOREN- ÖL VDL 68 ISO VG 68	Physiologically harmless, fully synthetic compressor oil for the food processing industry.	Approvals: NSF H1 147642 Specifications: DIN 51 506 VCL/VDL
TECTROL FOOD KOMPRESSOREN- ÖL VDL 100 ISO VG 100	Physiologically harmless, fully synthetic compressor oil for the food processing industry.	Approvals: NSF H1 147638 Specifications: DIN 51 506 VCL/VDL

# **METAL WORKING FLUID**

Product	Description
TECTROL METALLUM MM 90-28	Non water-miscible minimum quantity lubricant free from mineral oils for the machining of metals.
TECTROL METALLUM OL 10-5	Non water-miscible metalworking fluid for the grinding, fine machining or honing of metal materials; also suitable as EDM oil.
TECTROL METALLUM OL 20-22 ISO VG 22	Non water-miscible multi-purpose oil for use as cutting oil for ferrous and non-ferrous materials and as hydraulic oil ISO VG 22.
TECTROL METALLUM OL 30-32 ISO VG 32	Non water-miscible multi-purpose oil for use as cutting oil for ferrous and non-ferrous materials and as hydraulic oil I ISO VG 32.
TECTROL METALLUM OL 40-30	Non water-miscible cutting oil for easy to moderately difficult machining work on metal parts.
TECTROL METALLUM OL 50-20 ISO VG 22	Non water-miscible cutting oil for moderately difficult or difficult machining work on metal parts.
TECTROL METALLUM WE 101	Water-emulsifiable concentrated metalworking fluid for the universal machining of metals.
TECTROL METALLUM WE 202	High-quality, water-miscible metalworking fluid, particularly suited for the machining of cast iron.
TECTROL METALLUM WE 303	Water-miscible metal-working fluid based on mineral oils, particularly suited for the machining of steel.
TECTROL METALLUM WE 404	Water-miscible metalworking fluid based on mineral oil particularly suited for machining steel and aluminium alloys.
TECTROL METALLUM WE 505	Water-miscible metalworking fluid based on mineral oils, particularly suited for the processing of materials which are difficult to machine.
TECTROL METALLUM WE 606	Water-miscible metalworking fluid based on mineral oils, particularly suited for the machining of aluminium alloys and non-ferrous metal alloys.
TECTROL METALLUM WE 707	Water-miscible cooling lubricant based on mineral oil for medium to heavy-duty machining of aluminium, cast and steel.
TECTROL METALLUM WE 808	Water-miscible cooling lubricant which is used mainly for grinding and for the light to medium machining of cast and steel.
TECTROL METALLUM WK 33	Water-miscible metalworking fluid free from mineral oils, particularly suited for grinding operations on metals.
TECTROL METALLUM WK 55	Water-miscible metalworking fluid free from mineral oils, particularly suited for grinding operations on hard metal alloys.

 $<sup>^{*}</sup>$  Please find further recommendations and approvals in the product information sheets. The instructions of the unit's manufacturers must be observed.

# **SLIDEWAY OIL**

Product	Description	Performance Profile
TECTROL CGLP 68 ISO VG 68	Demulsifying slideway oil with good compatibility to water-based cooling lubricants.	Specifications: DIN 51 517-3 CLP / 51 524-2 HLP
TECTROL CGLP 220 ISO VG 220	Demulsifying slideway oil with good compatibility to water-based cooling lubricants.	Specifications: DIN 51 517-3 CLP / 51 524-2 HLP

# **FORM WORK OIL**

Product	Description
TECTROL TERRA BETO 450	Biodegradeable all-purpose releasing agent with. Suitable for all common form works in building and civil engineering. Excellent mixer protection and dewatering properties.
TECTROL TERRA SCHALUNGS- ÖL-SN	Release agent for wood and metal formwork, mixer protection, e.g. pug mill mixer, based on environmentally compatible raw materials – biodegradable.
TECTROL TRENNMITTEL BETO 100	Universal release agent for concrete factories and building construction. It is particularly suitable for types of formwork with no or low absorbency, for formwork shells made of phenolic resin or plastic and for plastic-coated formwork shells.
TECTROL TRENNMITTEL BETO 500	Special release agent for high-quality facing concrete. Can be used for all conventional types of formwork in building construction.
TECTROL TRENNMITTEL BETO 620	Release agent for use in prefabrication plants-
TECTROL TRENNMITTEL BETO 650	Releasing agent especially for the production of concrete blocks.
TECTROL TRENNMITTEL BITU CLEAN	Mould release and cleaning agent for bitumen and asphalt contaminations of truck platforms, rollers, pavers and parts of the vehicle body.
TECTROL TRENNMITTEL BITU PMB	The water-miscible universal release agent especially developed for polymer modified bitumen (PMB) is backwards compatible and can also be used for conventional binder courses and asphalts.
TECTROL TRENNMITTEL BITU WM	Water-miscible release agent for bitumen and asphalt based on vegetal raw materials.
TECTROL MISCHERSCHUTZ SPEZIAL	Universal mixer protection for concrete mixer trucks, concrete pumps, concrete mixing units, construction vehicles and tools.

# **ANTI-CORROSION**

Product	Description
TECTROL SCHUTZWACHS ENTFERNER	Special cleaner for protective wax removal.

# **ANTI-CORROSION**

Product	Description
TECTROL ROSTLOESER DFG	Spray fluid with micro-fine molybdenum disulphide (MoS2) and graphite providing water-repellent and corrosion protection properties.
TECTROL ROSTLÖSER HELL	Clear spray liquid with water-repellant and corrosion protection properties, multifunctional.
TECTROL TERRA SPRÜHÖL S	Environmentally friendly, biodegradable corrosion inhibitor and rust dissolver based on renewable resources; does not affect varnishes.

# **ADHESIVE OIL**

Product	Description	Performance Profile
TECTROL TERRA SÄGEKETTENÖL BLUE	Saw chain oil based on plant oils, quickly biodegradable "eco-friendly Blue Angel".	Application recommendations*: also recommended for Dolmar / Husqvarna / Solo / Stihl
TECTROL TERRA SÄGEKETTENÖL SPEZIAL ISO VG 220	Special saw chain adhesive oil for use in harvesters – biodegradable.	
TECTROL TERRA SÄGEKETTENÖL	Saw chain oil based on plant oils, quickly biodegradable.	Application recommendations*: also recommended for Dolmar / Husqvarna / Solo / Stihl
TECTROL SÄGEKETTENÖL	High-performance saw chain oil based on mineral oils providing excellent wear protection and high viscosity of 100 mm <sup>2</sup> /s, which results in less saw-bar wear.	Application recommendations*: For motor saws of the brands STIHL, HUSQVARNA, DOLMAR, SOLO and other manufacturers.
TECTROL HAFTÖL 150 ISO VG 150	High-performance lubricating and adhesive oil for loss lubricating points.	
TECTROL HAFTÖL 220 ISO VG 220	High-performance lubricating and adhesive oil for loss lubricating points.	
TECTROL HAFTÖL 320 ISO VG 320	High-performance lubricating and adhesive oil for loss lubricating points.	
TECTROL HAFTÖL 460 ISO VG 460	Powerful lubricating and adhesive oil for loss lubricating points.	
TECTROL TERRA HAFTÖL 320 ISO VG 320	High-quality saw gate adhesive oil based on plant oils – quickly biodegradable and environmentally friendly, excellent wear protection resulting in a highly resistant lubricating film.	

 $<sup>^{*}</sup>$  Please find further recommendations and approvals in the product information sheets. The instructions of the unit's manufacturers must be observed.

# **VACUUM PUMP OIL**

Product	Description
TECTROL TERRA LUBE 530 ISO VG 46	Environmentally friendly vacuum slurry pump oil based on esters – quickly biodegradable.
TECTROL MELKMASCHINENÖL UNIVERSAL ISO VG 46	Synthetic high-performance milking machine oil (vacuum pump oil) for all milking machines.

## **ANTIFREEZE**

Product	Description	Performance Profile
TECTROL COOLPROTECT SI-OAT	Long-term coolant with SI-OAT technology based on ethylene glycol, free from amine, nitrite and phosphate. It protects ale engines, especially high loaded aluminium engines from freeze, corrosion and overheating. It prevents efficiently from deposits in the cooling system.	Approvals: MAN 324 Typ Si-OAT, MB-Approval 325.5 / 325.6 Specifications: ASTM D 3306 / D 4985, CUNA NC 956-16, ÖNORM V 5123, SAE J1034 Application recommendations*: Cummins CES 14603, MTU / MTL 5048, VW Audi Seat and Škoda / TL 774-G
TECTROL COOLPROTECT	Long-term engine coolant based on ethylene glycol, free from amines, nitrites and phosphates.	Approvals: CAT CG132 / CG170 / CG260, Deutz DQC CA-14, MAN 324 Typ NF also for Pritarder, MB-Approval 325.0, MTU / MTL 5048, MWM TR 0199-99-2091/9 Specifications: AFNOR NF R 15-601, ASTM D 3306 / D 4985, CUNA NC 956-16, ÖNORM V 5123, SAE J1034 Application recommendations*: Bez. Reg. Arnsberg, Abt. Bergbau u. Energie 84.12.22.63-2001-2, BMW N 600 69.0, German Federal Armed Forces TL 6850-0038/1, Jenbacher TA 1000-0201, Liebherr Machines Bulle TLV 035 / TLV 23009 A, Opel B 040 0240, Saab 6901599, Schnell ES- / ZS- / 6R20.1B/BO aggregates, VW TL 774-C
TECTROL COOLPROTECT S	Long-term engine coolant based on ethylene glycol; free from amines, nitrites and phosphates.	Specifications: ASTM D 3306 / D 4340 / D 4985, SAE J1034 Application recommendations*: BS 6580, MAN 324 Typ NF, MB 325.2, NATO S-759, Önorm V 5123, VW TL 774-C
TECTROL COOLPROTECT-MIX 3000	Special ready-to-use coolant, especially for the application in stationary engines. The outstanding product performance provides prolonged service intervals and protects all modern and high loaded engines from deposits, cavitation and corrosion. The water quality used was individually adjusted and tested by leading engine manufacturers.	Approvals: MTU / MTL 5048 Application recommendations*: MB 325.3, VW TL 774-D/F

## **ANTIFREEZE**

Product	Description	Performance Profile
TECTROL COOLPROTECT-MIX 480	TECTROL COOLPROTECT MIX 480 is a purpose-made engine coolant mixture for direct use in stationary combustion engines. The excellent product properties protect all state-of-the-art and highly stressed engines against deposits, cavitation and corrosion. The water quality used was individually adjusted and tested by leading engine manufacturers.	Application recommendations*:  Deutz H-LV 0161 0188, Jenbacher TA 1000-0201, Liebherr Machines Bulle TLV 035 / TLV 23009 A, MAN 324  Typ NF, Schnell ES- / ZS- / 6R20.1B/BO aggregates (TA 2740)

# CLEANER, PROTECTION AND CARE FLUID

Product	Description	Performance Profile
TECTROL FOOD FETTSPRAY	Special spray grease for the most difficult applications in the food processing industry when a broad temperature range, extremely high pressures and high speeds are the criteria for use.	Approvals: NSF H1 147639 Application recommendations*: Application temperature range -50 °C to +180 °C, short term +220 °C
TECTROL FOOD KETTENSPRAY	Physiologically harmless synthetic adhesive lubricant for use in the food processing industry to lubricate chains, ropes and open drives.	Approvals: NSF H1 147624 Application recommendations*: Application temperature range -25 °C to +180 °C
TECTROL FOOD SPRÜHÖL	Physiologically harmless, colourless synthetic oil which can be used for the lubrication and maintenance of connections and all moving parts.	Approvals: NSF H1 147641
TECTROL POWER CLEAN PURE	Safety cleaner for food-processing plants.	Approvals: NSF K1 147625
TECTROL MULTI SPRAY XL	Top quality multi-purpose lubrication spray with PTFE for the use in workshop, industry and agriculture, house and garden.	
TECTROL KETTENSPRAY	Long-term lubrication of chains, bearings, couplings and joints. Excellent adhesive, creeping and flowing capacity.	
TECTROL ROSTLOESER MOS SPRAY	Spray-fluid with micro molybdenum disulfide (MoS2) and black lead, with dewatering and corrosion-protection properties.	
TECTROL ROSTLOESER HELL SPRAY	Universal oil spray for service and maintenance of industrial, craft, agricultural and household applications.	
TECTROL SCHUTZWACHS ENTFERNER	Special cleaner for protective wax removal.	
TECTROL SCHAUMREINIGER	Environmental friendly cleaning-foam, removes oil, grease and tar-spots. For all glass, chrome and plastic-materials as well as upholsteries.	
TECTROL BREMSENREINIGER	Special cleaner used to degrease disc brakes, brake and clutch linings.	

 $<sup>^{*}</sup>$  Please find further recommendations and approvals in the product information sheets. The instructions of the unit's manufacturers must be observed.

# **CLEANER, PROTECTION AND CARE FLUID**

Product	Description	Performance Profile
TECTROL KALTREINIGER	Cold cleaner with a state-of-the-art composition based on a disaromatised hydrocarbon mixture with especially high solvent power. Excellent cleaning capacity, fast-acting, gentle to the material, good corrosion protection.	
TECTROL POWER CLEAN GREEN	Universal cleaner for use in industry, trade and agriculture.	
TECTROL SILIKONSPRAY	Non-lipid care-, glide-, release- and p	protection-spray for metals, rubber, plastics and wood.
TECTROL COCKPITSPRAY		Cleans, adds sheen to and preserves plastic surfaces, vinyl s, plastic, wooden and leather parts (not fabrics).
TECTROL KALTSTARTSPRAY	Cold start aid for any combustion engrubber seals.	gine. Free from acetone; does not attack plastics and
TECTROL KONTAKTSPRAY	Enhances the electrical conductivity, repels moisture.	eliminates voltage losses, prevents oxidation and
TECTROL LECKSUCHSPRAY		of leakages at gas-or pressure carrying components. e, natural and biogas, nitrogen and nitrous oxide.
TECTROL ZAHNRADSPRAY DUOTAC	Special lubricant for open gearboxes, resistant protective and lubricating fil	sprockets, chains and wire ropes. Graphite formula for m.
TECTROL PLANTO SPRUEHOEL S SPRAY	Clear rust dissolver and corrosion inh varnish and environment.	ibitor with optimum creep capacity. Repels water, protects

# WINDSCREEN ANTIFREEZE

Product	Description
TECTROL SCHEIBENFROSTSCHUTZ	Windscreen washer antifreeze concentrate – 60°C with a pleasant, fresh odour for windscreen and headlight washer systems, which can be used all year long. Ideally suited for windscreen washer systems with fan nozzles; suitable also for polycarbonate windscreens.

# **OIL ABSORBANT**

Product	Description
TECTROL ÖLBINDER S	Oil-binding agent based on polyurethane, water-repellant and buoyant. Classification criterion for oil-binding agents type I,II,III R SF. Areas of application: industry, trade and all streets.
TECTROL ÖLBINDER F	Oil-binding agent based on diatomaceous earth. Classification criterion for oil-binding agents type III R. Areas of application: industry, trade and all streets.
TECTROL ÖLBINDER U	Oil-binding agent based on Calcium Silicate Hydrate. Classification criterion for oil-binding agents type III R. Areas of application: industry, trade and all streets.

# Qualified expert consultation

You can avail of our product service package across Germany and many other countries. A total of 100 qualified experts are ready to assist you and provide you with any advice you need.

# Your contact partner – Germany

BayWa AG Energy Segment, Product Management Lubricants

# Your contact partner – outside of Germany

Austria	Unser Lagerhaus Warenhandelsges. M. b. H., Klagenfurt, Phone: +43 (0) 463 3 865 688
Belgium	KOCKELMANN Lubricants, B-6671 Courtil, Phone: +32 (0) 80 221 213
Bosnia	Index d.o.o., 75320 Gracanica, Phone: +38 (0) 7 35 705 221
Czech Republic, Slovakia	I.O.B., spol s.r.o., Phone: +42 (0) 283 085 215
Hungary	KSZE-Gépszolg Kft., Phone: +36 74 512 128
Ireland	William J. Jones, Cudville, Phone: +353 (0) 67-31068
Italy (beside South Tyrol)	Tamoil Italia SpA, Milan, Phone: +39 (0) 2 26 816 321
Lithuania	JSC Biokona, Phone: +37 (0) 686 97680
Luxemburg	P&M Lubri-Tec Sàrl, L-9749 Fischbach, Phone: +35 (0) 2 269 04 689
Macedonia	OES.DOO-Gevgelija, 1480 Gevgelija, Phone: +38 (0) 970-638-501
Singapore/Thailand/Indonesia/Malaysia/Myanmar	HAUSAUTO PTE LTD, Singapore, Phone: +65 (0) 91878810
South Tyrol	Consorzio Agrario, Bozen, Phone: +39 (0) 471 926 902
Sweden	Norups Gård Bioraff AB, SE-28921 Knislinge, Phone: +46 (0) 44-600 10
Switzerland	LV-St. Gallen, Phone: +41 (0) 4171 2 267 880
Taiwan	Billico IM-EXPORT Co., LTD, New Taipai City, Phone: +886-2-26083921

Phone: +49 (0) 931 99 172 440