

Innovative lubricants need experienced application engineers

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

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06/2016

Product Program Industrial Lubricants 2018



LUBRICANTS. TECHNOLOGY. PEOPLE.

For more than 80 years, we have been concentrating all our activities and research effort on the development of innovative lubricants. This specialization means that we are enjoying continuous growth - geographically, technically and in the number of application areas. Today, FUCHS is a company that offers powerful lubricants and associated specialties worldwide in practically all areas of application and industries.

What makes our products more valuable: We develop lubricants on an application-specific basis and tailored to our partners' processes. Together, we look for the best lubricants for our customer. This type of collaboration is unique in its form, scope and intensity.

We call it a development partnership. This ability is based on one key feature: As a true lubricant specialist with our headquarters in Mannheim/Germany, we are the largest independent lubricant specialist, and this independence makes all the difference. We are open to new methods and visionary approaches - a prerequisite for innovations. And innovations are a FUCHS trademark.

กว่า 80 ปี เราทุ่มเทในการค้นคว้าวิจัยและพัฒนาอย่างต่อเนื่อง เราเริ่มต้นจากการเติบโตอย่างต่อเนื่องในห่วงโซ่อุปทานที่แข็งแกร่ง ซึ่งนำมาสู่ความยอมรับว่า เราเป็นผู้เชี่ยวชาญในธุรกิจของเราเอง
วันนี้ FUCHS นำเสนอผลิตภัณฑ์สำหรับการเคลื่อนที่ของรถยนต์และยานพาหนะที่มีประสิทธิภาพสูง สิ่งเหล่านี้เป็นผลมาจากความมุ่งมั่นของเราในการพัฒนาผลิตภัณฑ์ของเราอย่างต่อเนื่อง
เราพัฒนาผลิตภัณฑ์ใหม่โดยคำนึงถึงรูปแบบการใช้งานและออกแบบให้เฉพาะกับกระบวนการผลิตที่เลือกใช้น้ำมันหล่อลื่นของเรา
เราขอเชิญชวนให้ท่านที่สนใจติดต่อเราเกี่ยวกับผลิตภัณฑ์ของเรา

FUCHS (フックス) は、80年以上にわたり、革新的な潤滑油剤の開発に専念するとともに、研究を重ねてまいりました。

私どもの専門性は、多数の分野・用途にわたります。多岐にわたるお客様のご要望にお応えするため、専門的な技術を極められるよう、たゆまぬ努力をしております。

今日のFUCHSは、世界中のあらゆる用途と産業に役立つ潤滑油剤および関連専門製品を提供するグローバルグループになりました。

FUCHS製品の特長

私どもは、パートナー（＝お客様）の工程に合わせて、用途ごとの潤滑油剤を開発しております。お客様とともに、最適な潤滑油剤を探索し提供いたします。このようなコラボレーションは、形態、領域、質の高さにおいて私ども独自のものです。

FUCHSは、これを「開発パートナーシップ」と呼んでおり、弊社の重要な特色の一つとして位置付けております。ドイツ、マンハイムに本社を置く、真の潤滑油剤の専門家として、FUCHSは世界最大の独立系潤滑油剤サプライヤーであり、この「独立性」こそが、他社との差別化を図るうえで大きな違いを生むと考えております。私どもは、お客様より、新しい方法、明確なビジョンをもった提案を受け入れ、取り入れます。それは革新の必須条件であり、FUCHSのトレードマークとも言えます。

Facts and figures

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

Headquarters: Mannheim

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

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

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

FUCHS LUBRICANTS (Thailand) Co., Ltd. is a subsidiary company of the globally active Germany based FUCHS PETROLUB SE, the world largest independent lubricants manufacturer.

We are supplying a complete range of lubricants to the Thai market. Extensive product range covering everything from high performance engine oils to specialized greases and metal working fluids for the industrial sector.

With the combination of the extensive product range and the service back - up from our team of specialists we provide not just products, but comprehensive solutions that suit all lubricants needs of our valued customers.

บริษัท ฟุคส์ อูบวีแคนท์ส (ประเทศไทย) จำกัด เป็นบริษัทในเครือ FUCHS PETROLUB SE ผู้ผลิตน้ำมันหล่อลื่นจากเยอรมัน ที่ประกอบกิจการระดับสากลทั่วโลก

"ฟุคส์" จำหน่ายผลิตภัณฑ์ด้านน้ำมันหล่อลื่นให้แก่ตลาดในประเทศไทย ผลิตภัณฑ์คุณภาพสูงหลากหลายประเภท ครอบคลุมความต้องการของผู้ใช้ทั้งจากระบบเครื่องยนต์ และผลิตภัณฑ์หล่อลื่นที่ใช้กับงานอุตสาหกรรมหนักทั่วไป

ด้วยความผสมผสานความหลากหลายของผลิตภัณฑ์และบริการเชิงกายภาพโดยทีมผู้เชี่ยวชาญ "ฟุคส์" ไม่ได้เป็นเพียงผู้จำหน่ายเท่านั้น แต่ยังได้คำแนะนำเชิงเทคนิคเพื่อการเลือกใช้น้ำมันหล่อลื่นที่เหมาะสมกับเครื่องยนต์ตามความต้องการของผู้ใช้ในทุกที่อีกด้วย

FUCHS LUBRICANTS (Thailand) Co., Ltd.

は、ドイツを本拠地とする世界最大の独立系潤滑油剤グローバルサプライヤーFUCHS PETROLUB SEのタイ拠点です。

フックス (タイ) は、フックス製潤滑油剤の全ラインナップをタイ国内市場に供給しております。広範囲な製品ラインナップは、高性能エンジンオイルから特殊グリース、工業用の金属加工油剤にまで及びます。

広範囲な製品ラインナップと私どもの専門家チームのサービスサポートは、大切なお客様に、製品だけでなく、あらゆる潤滑油剤ニーズに沿った包括的なソリューションをご提供してまいります。

Cutting Fluids

ECOCOOL



Brand Name	Materials						Machining Operation/ Dilution recommendation.	Characteristics / Application	Benefits
	Copper/Brass	Aluminium	Cast Iron	Mild Steel	Alloy Steel	Stainless Steel			
Conventional									
ECOCOOL 6210 T	✓	✓	✓	✓	✓	✓	Light duty 3 - 5% Moderate duty 5 - 7% Heavy duty > 8%	- Milky water miscible - Multipurpose machining operation - ferrous and non ferrous materials - Stable emulsion at all temperature - Less staining on Copper	- Good surface finishing - Good corrosion prevention
Semi Synthetic									
ECOCOOL 700 NBF (M)	✓	✓	✓✓	✓✓	✓✓	✓✓	Moderate duty 4 - 6% Heavy duty 8 - 12%	- Superior performance semi-synthetic coolant - General and Difficult machining - Especially design for Ferrous materials - Chlorine, Nitrites and Phenols Free*	- Up to 2 years sump life. - Very low Top up rate - Extended Tool life - Excellent Corrosion prevention. - Excellent surface finishing - Lower machine maintenance cost. - Better environmental - Reduce production cost.
ECOCOOL 600 NBF C		★	✓✓	✓✓	✓✓	✓	Moderate duty 4 - 7% Heavy duty 7 - 12%	- Premium performance semi-synthetic coolant - General and Difficult machining - Especially design for Ferrous materials - Chlorine, Nitrites and Phenols Free *Not suitable Aluminium.	- Up to 1 years sump life. - Very low Top up rate - Extended Tool life - Excellent Corrosion prevention. - Excellent surface finishing - Lower machine maintenance cost. - Better environmental - Reduce production cost.
ECOCOOL 1030 S	✓	✓✓	✓	✓	✓	✓	Moderate duty 5 - 8% Heavy duty 8 - 12%	- Premium performance semi-synthetic - Recognized for Aluminium materials - Multi machining operation - Chlorine, Nitrite, Zinc and Phenols Free	- Up to 1 year sump life. - Very low Top up rate - Excellent Non ferrous compatibility - Easier washing ability - Coverage machining application - Lower machine maintenance cost - Better environmental - Reduce production cost
Synthetic									
ECOCOOL TPSSL	✓	✓	✓	✓	✓	✓	Grinding 2 - 3%	- High performance synthetic coolant. - Non hazardous substances	- Extra extended long drain interval - Excellent corrosion protection - Better Low foaming / low sticky - Better environmental
ECOCOOL STU - K	✓	✓	✓	✓	✓	✓	Grinding 2 - 3% Light duty 4 - 6% Moderate duty > 6%	- Premium performance synthetic coolant. - Good Lubricity - Unique combine machining operation. - Non hazardous substances	- Extra extended long drain interval - Excellent corrosion protection - Better Low foaming / low sticky - Effectiveness raw materials - Better environmental
ECOCOOL S - CO 5	✓	✓	✓	✓	✓	✓	Grinding 3 - 5%	- Premium performance synthetic coolant. - Especially to combat cobalt solubility when grinding carbides - Leaves no sticky residues. - Non hazardous substances	- Extra extended long drain interval - Prevents the solubility of cobalt - Excellent corrosion protection - Better Low foaming / low sticky - Better environmental

Remark : Fuchs's products do not containing any inprohibited substances of ROHs and REACH.

✓✓ = Recommendation

✓ = Applicable

Cutting Fluids

ECOCUT



Brand Name	KV@ 40 °C, cSt	Materials						Application											Feature	Benefit			
		Copper/Brass	Aluminium	Cast Iron	Mild Steel	Alloy steel	Stainless Steel	E.D.M	Turning	Milling	Drilling	Tapping	Sawing	Threading	Broaching	Gear Hobbing	Gear shaving	Gun drilling			Honing	Grinding	High speed Grinding
EDM - Grinding - Honing																							
ECOCUT FES 2 K	3			✓	✓	✓													●	●		- Better Swarf and easier Filtration - High Flash point property - Excellent resistance of oxidation	- Excellent surface finish workpieces and System cleanliness - Safety fire resistance - Better unpleasant odour - Excellent long drain interval
ECOCUT HFN 6605 T	5			✓	✓	✓	✓												●	●		- Optimized heat transfer - High quality EP additive - Chlorine & Zinc free	- Highly speed surface finish operation - Enhanced Tool life - Better Environmental
ECOCUT HFN 5 LE	5			✓	✓	✓	✓												●	●	●	- Low evaporation Technology - Optimized heat transfer - High quality EP additive - Chlorine & Zinc free	- Excellent reducing Mist workshop pollution - Highly speed surface finish operation - Enhanced Tool life - Better Environmental
ECOCUT HSG 905 JC	5			✓	✓	✓	✓													●	●	- Highly refined oil based - Excellent quality EP Additive - Optimized heat transfer - Chlorine Free, antimist	- Excellent increase grinding wheel life - Ensure consistent grinding performance - Optimum cooling and flushing - Better Environmental
Light duty machining																							
ECOCUT NF 1001	12	✓	✓	✓	✓	✓		●	●	●	●	●	●									- Highly refined oil base - Good lubricity - Selected quality EP & Fatty - Chlorine Free	- Excellent surface finish workpieces - Special usable for variety materials - Enhanced tool life - Better Environmental
Medium duty machining																							
ECOCUT MCN 220 Series	16,23 ,46	✓	✓	✓	✓	✓		●	●	●	●	●	●									- Good chlorinated additive - Antimist properties - High quality EP and Fatty additive	- Heavy duty for cutting operation - Better reducing Mist work shop pollution - Enhanced tool life - Designed usable variety machining
ECOCUT MSN 320 Series	16,23 ,46	✓	✓	✓	✓	✓		●	●	●	●	●	●	●	●	●						- Good chlorined & sulphur additive - Antimist properties - High quality EP & Fatty additive package	- High performance for severe cutting operation - Better reducing Mist work shop pollution - Provide difficult for stainless steel - Extend tool life
ECOCUT MSN 325	30	✓	✓	✓	✓	✓	✓	●	●	●	●	●	●	●	●	●						- High quality EP & Fatty additive - Chlorine Free	- Excellent Wide range for materials & cutting operation - Dischargeable for Copper mat - Better environmental
ECOCUT MSN 330 T	29	✓	✓	✓	✓	✓	✓	●	●	●	●	●	●	●	●	●						- Highly refined oil base - Good lubricity - Selected quality EP & Fatty - Chlorine Free	- Heavy duty for cutting operation - Enhanced tool life - Designed usable variety machining - Better environmental
ECOCUT GF 24 T	24		✓	✓	✓	✓	✓	●	●	●	●	●	●	●	●	●						- Special quality EP & Fatty additive - Chlorine Free	- Superior performance for severe cutting operation - Extend tool life for hard materials - Better environmental
Heavy Duty Machining																							
RATAK MSN 135 S	17		✓	✓	✓	✓	✓	●	●	●	●	●	●	●	●	●	●	●				- Premium quality EP & Fatty substances - Anti mist properties	- Superior performance for severe cutting operation - Extend tool life - Better reducing Mist work shop pollution
RATAK HSK 32	32	✓	✓	✓	✓	✓	✓	●	●	●	●	●	●	●	●	●						- Extra quality EP & Fatty substances - Anti mist properties	- Extreme performance for severe cutting operation - Excellent Wide range for materials & cutting operation - Enhanced tool life - Better reducing Mist work shop pollution

✓ & • = Applicable

Forming lubricants

RENOFORM

Corrosion protection

ANTICORIT



Brand Name	KV @ 40°C, cSt.	Materials				Application								Feature	Benefit		
		Copper/Brass	Aluminium	Steel Sheet	Stainless Steel	Blanking	Stamping	Bending	Embossing	Drawing	Extrusion	Deep drawing	Fine Blanking			Wire drawing	
Solvent Based - Self Evaporating																	
RENOFORM ST 16	< 1.0	✓	✓	✓	✓	●	●									- Specially fluid formulation - High quality Lubricity	- Excellent speed for forming operation - Reduced cleaning process. - Increase productivity - Materials thickness <= 1 mm.
Solvent Based - Light to Medium Duty																	
RENOFORM ST 17	1.3	✓	✓	✓	✓	●	●									- Fast evaporation - No degreasing process *	- Excellent speed for forming operation - Extended tool life - Reduced cleaning process. - Increase productivity - Materials thickness <= 1 mm.
Oil Based - Light to Medium duty Forming oils																	
RENOFORM TMT 1	4	✓	✓	✓	✓	●	●	●	●	●						- High quality EP additive - Specially additive package	- Especially multifunction for washing, forming and rust protection. - Extended tool life - Materials thickness <= 1.2 mm
RENOFORM CF 10	10	✓	✓	✓	✓	●	●	●	●	●						- Special Lubricity agent and formulation - Chlorine and Sulphur Free	- Excellent clean burn, leave no deposit, no sticking problem. - Enhanced tool life - Better environmental - Materials thickness <= 9 mm (Aluminium)
Oil Based - Medium duty Forming oils																	
RENOFORM TZAN 68	68	✓	✓	✓	✓	●	●	●	●	●	●					- High power EP & lubricity additive. - Chlorine Free	- Heavy forming performance - Enhanced tool life - Good rust protection - Better environmental - Materials thickness <= 2.5 mm
RENOFORM CF 111	111	✓	✓	✓	✓	●	●	●	●	●	●	●				- High power Antiwear & EP additive - Good Lubricity agent	- Heavy forming performance. - Extended tool life - Easily removed & Safety irritate the skin - Materials thickness <= 2.5 mm
Oil Based - Heavy Duty Forming Oils																	
RENOFORM MZA 30 T	150	✓	✓	✓	✓	●	●	●	●	●	●	●				- Superior EP & Antiwear properties. - Good Lubricity Agent - Chlorine free	- Better heavy forming performance - High quality rust protection - Resolve rust problem caused by spot welding - Extended tool life - Good environmental - Materials thickness <= 4.0 mm
RENOFORM MZAN 51 T	95		✓	✓	✓	●	●	●	●	●	●	●	●			- Extra EP & Antiwear properties. - High Lubricity Agent - Medium Film coverage	- High performance Fine blanking - Enhanced tool life - Easily removed by Industrial cleansers - Materials thickness <= 4 mm.
RENOFORM MZAN 350 T	350			✓	✓	●	●	●	●	●	●	●	●			- Extra EP & Antiwear properties. - High Lubricity Agent - Heavy Film coverage	- High performance Fine blanking - Enhanced tool life - Easily removed by Industrial cleansers - Materials thickness <= 9 mm.
Oil Based - Wire drawing																	
RENOFORM FW 50	500	✓	✓	✓	✓	●	●	●	●	●	●	●	●	●		- Highest EP & ester substances additive - High Lubricity Agent - Heavy Film coverage	- Excellent materials compatibility. - Minimal tool wear - Increase wire drawing performance - Excellent corrosion protection.
Water Soluble - Wire drawing																	
RENOFORM MF 10 M	Drawing Compound	✓	✓	✓	✓							●	●			- Water miscible. - Highly dispersed fat. - Well selected active substances - Finely dispersed solid EP - Free of silicone	- Excellent emulsion under agitation - Extend sump life up 1 year. - Highly lubricity increase wire drawing performances - Easily careful condition & washing ability

Brand Name	Film Type	Protection time (month)		Feature / Application	Benefit
		indoor storage	open shed storage		
Local Products					
ANTICORIT RPS 6205	Oily film	1	n/a	- High quality oil film and chemicals - Good designed compatible with non ferrous materials.	- Good responded film coverage. - Excellent finger print protection. - Supporting all kind of materials.
ANCORIT RPS 6204	Oily film	3-6	2-5		
ANTICORIT RPS 6201	Oily film with low odour	6-12	3-6	- Special quality oil film and chemical - Selected solvent based quality	- Excellent anti-rust performance - Excellent finger print and hand perspiration corrosion. - Better low odour.
ANTICORIT DFO 6301	Oily film	5-12	3-6	- Intensive dewatering properties - High quality oil film and chemical - Free of barium	- Powerful removed Humid - Excellent corrosion protection - Very good compatibility - Easily clean washing
ANTICORIT DFW 503 ANTICORIT DFW 503 L	Waxy film Waxy film with low odou	3-6	1-3	- Intensive dewatering properties - Good quality waxy film - High flash point in model "L"	- Powerful removed Humid - Excellent corrosion protection - Very good compatibility - Easily clean washing - Low odour in model "L"
ANTICORIT DFW 6301	Waxy film	9-12	4-8	- Intensive dewatering properties - High quality thixotropics and waxy film.	- Powerful removed Humid - Excellent corrosion protection - Very good compatibility - Easily clean washing
Import Products					
ANTICORIT DFG (Spray)	Oily+MoS2+Graphite	n/a	n/a	- Spray fluid with MoS2 & graphite	- Special designed antifreeze & anti rust for frozen room equipments and small component in automotive parts. - Applicable rust solvent with screws,nuts and hinges.
ANTICORIT RP 4107 LV	Oily thixothopic film	12-18	6-12	- Premium performance preventive corrosion - Excellent thixotropic - Low viscosity wide range of application	- Superior performance anti-rust protection up to 3 years - Exceeds qualification for forming car body - Excellent applied for coil cold rolled as steel sheet in storage. - Easily removed by aqueous and alkaline cleaners.
ANTICORIT BW 366	Waxy film	12-36	12-24	- Excellent performance prevensive wax. - Excellent thixotropic film - Approved by MAN under M 3082 Type D2 - Adjustable film thickness by solvent	- Excellent long term 1-3 years film protection. - Specially most different application as underbody, Die making and Heavy duty machineries - Very responds cost effectively

Cleaner



Brand Name	Appearance	Flash Point °C	Distillation range, °C	Evaporation Rate (n-BuAc=100)	Application
Hydrocarbon Cleaner					
Renoclean DP 100	Clear Water White	-12	85 - 100	*4.2 (n-BuAc = 100)*	- High purity aliphatic hydrocarbon solvent with severely dearomatized - Multipurpose industrial cleaner for metal pre-washing. - Equipment degreasing - General degreasing and maintenance clearing.
Renoclean Pre-washing	Clear Water White	40	130 - 205	16	- Hydrocarbon solvent with an aromatics content. - Multipurpose industrial cleaner for metal pre-washing. - Equipment degreasing - General and maintenance clearing.
Renoclean Pre-washing I	Clear Water White	40	159 - 193	12	- High purity dearomatized solvent from narrow-cut aliphatic hydrocarbon - General purpose are low odour, low poisonous hydrocarbon cleaner - Multipurpose industrial cleaner for metal pre-washing - Equipment degreasing - General degreasing and maintenance clearing
Renoclean Pre-washing II	Clear Water White	80	200 - 240	<1	

Water Soluble Cleaner

Product name	Appearance	pH (Conc.)	pH (Dilution)	Evaporation Rate (n-BuAc=100)	Application
Renoclean 431	Yellow	8	7.4 at 10 %	10%	- Tyre fitting lubricant or to lubricate door and window seals - Special non - corrosion additive keep the product moist during use. - The lubricity of the film ceases when the film dries. - It does not attack paint finished aluminum or zinc
RENOCLEAN C 20 K 1427	Yellow	11.0	10.2 at 2 %	2 - 3 %	- Industrial cleaner for hot-spray degreasing machines. - Slightly alkaline and free mineral oil and Nitrite. - It was specially developed for steel and cast components. - Recommended for metal washing machines operation between 45°C - 60°C
RENOCLEAN VR 1021 CXV			9.8 @ 2%	1 - 5 %	- Industrial cleaner for hot-spray degreasing machines. - Slightly alkaline and free mineral oil and Nitrite. - It was specially developed for steel and cast components. - Recommended for metal washing machines operation between 45°C - 60°C

RENOCLEAN

Industrial Lubricants

**RENOLIN Hydraulic oil - an overview**

Name / characteristic	Corrosion protection	Ageing stability	EP/AW Anti - wear additives	Demul - sifying	Detergent	Highly dispersant	High VI
RENOLIN hydraulic oils - containing zinc							
RENOLIN B	•	•	•	•			•
RENOLIN B-HVI	•	•	•	•			•
RENOLIN XTREME TEMP / PLUS	•	•	•	•			
RENOLIN D	•	•	•				
RENOLIN MR	•	•	•		•	•	
RENOLIN MR 310 / 520	•	•	•		•	•	•
RENOLIN MR - MC	•	•	•		•	•	•
RENOLIN LD	•	•	•			•	
RENOLIN hydraulic oils - zinc - free and ash - free							
RENOLIN DTA	•	•	•	•			
RENOLIN ZAF B HT	•	•	•				
RENOLIN ZAF D HT	•	•	•		•		
RENOLIN MWB	•	•	•	1), 2)	•	•	
RENOLIN ZAF DT	•	•	•		•	•	
RENOLIN ZAF MC	•	•	•	•			•
RENOLIN ZAF D HT PLUS	•	•	•		•	•	

1= Dominant characteristic (special additive reserves)

1)= Bruggen Anti Wear >50 Nmm²

2)= FFB-Roller Bearing Wear test = pass, excellent

RENOLIN B - high - performance demulsifying AW/EP hydraulic and circulating oils, Denison HFO approved**HLP-Oils (demulsifying)**

Product name	Description	Density at 15 °C [kg/m ³]	FLP Cleveland [°C]	Kin.Visc. at 40 °C [mm ² /s]	Kin.Visc. at 100 °C [mm ² /s]	VI Viscosity index	Pour-point [°C]	Main application area
RENOLIN B 3 VG 10	General lubricating and hydraulic oils with good aging resistance and additives for improved corrosion protection. Good viscosity-temperature behavior, good wear protection, demulsifying (water-repellent), air release, contain zinc. The RENOLIN B range meets and exceeds the minimum requirements of HLP hydraulic oils as per DIN 51 524-2.	850	178	10	2.6	95	-42	As lubricating oils, particularly as hydraulic oils if good resistance to aging, wear protection and demulsifying properties are required. Universal hydraulic oils for all hydraulic systems, even if thermally stressed. Excellent filtration behavior.
RENOLIN B 5 VG 22		863	200	22	4.4	107	-27	
RENOLIN B 10 VG 32		876	205	32	5.5	109	-24	
RENOLIN B 15 VG 46		875	210	46	6.9	105	-24	
RENOLIN B 20 VG 68		881	224	68	8.8	100	-24	
RENOLIN B 30 VG 100		883	232	100	11.1	96	-18	
RENOLIN B 40 VG 150	ISO 6743/4, HM ISO 6743/6, CKC ISO 11158, HM Denison HFO, HF1, HF2	887	224	150	14.5	94	-15	(Refer to P1* 4-1207 for further details)

RENOLIN MR - high detergent AW / EP circulating and hydraulic oils with excellent corrosion protection**HLPD-Oils (detergent/dispersive)**

Product name	Description	Density at 15 °C [kg/m ³]	FLP Cleveland [°C]	Kin.Visc. at 40 °C [mm ² /s]	Kin.Visc. at 100 °C [mm ² /s]	VI Viscosity index	Pour-point [°C]	Main application area
RENOLIN MR 0 VG 2	RENOLIN MR products are special HLPD lubricating and hydraulic fluids according to DIN 51 502 with outstanding corrosion protection and powerful cleaning and dirt holding capacity. Contain zinc as well as being detergent and dispersant. RENOLIN MR oils are used in many hydraulic systems as problem solvers, especially when standard oils cannot fulfill all requirements. RENOLIN MR oils fulfill and surpass the requirements of HLPD hydraulic oils according to DIN 51 524-2.	807	75	2.2	-	-	-42	RENOLIN MR 3: for machine tool spindles and roller bearing spindles in the textile industry. RENOLIN MR 5, 10 and 20: Heavy-duty hydraulic oils with outstanding corrosion protection up to continuous temperatures of 100°C RENOLIN MR 5, 10 and 20: for smaller gearboxes, in particular with electrical multi-plate clutches. RENOLIN MR 30, 40, 90: For larger gearboxes. As running-in and anticorrosion oil. Allows oil changes to be extended. (Refer to P1* 4-1249 for further details)
RENOLIN MR 1 VG 5		837	85	5	1.7	83	-36	
RENOLIN MR 3 VG 10		852	166	10	2.6	91	-30	
RENOLIN MR 5 VG 22		868	165	22	4.3	105	-30	
RENOLIN MR 10 VG 32		875	210	32	5.4	102	-30	
RENOLIN MR 15 VG 46		877	220	46	6.9	105	-27	
RENOLIN MR 20 VG 68	ISO 6743/4-HM with high DD-performance.	881	225	68	8.9	105	-24	
RENOLIN MR 30 VG 100		883	248	100	11.4	100	-18	
RENOLIN MR 40 VG 150		889	250	150	14.8	98	-18	
RENOLIN MR 90 VG 320		903	265	320	24.8	99	-12	
RENOLIN MR 140 VG 460		907	297	460	31	95	-9	

RENOLIN

Industrial Lubricants



FUCHS industrial gear oil, performance in line with ISO 6743-6, ISO 12925-1

Product name	CKB	CKC	CKD	CKE	CKS	CKT
**R&O	**R&O AW/EP	**R&O AW/EP "higher temp."	**R&O "low friction"	**R&O "extreme temp"	**R&O AW/EP "extreme temp"	
RENOLIN DTA/CL	•	—	—	—	—	—
RENOLIN CLP	•	•	•	•	•	•
RENOLIN CLP-PLUS*	—	•	•	•	•	•
RENOLIN CLP SUPER*	—	•	•	•	•	•
RENOLIN UNISYN CLP	—	•	•	•	•	•
RENOLIN PG	—	•	•	•	•	•
PLANTOGEARS	—	•	•	•	•	•
RENOLIN UNISYN XT	—	•	•	•	•	•
RENOLIN HIGHGEAR*	—	•	•	•	•	•
RENOLIN HIGHGEAR SYNTH*	—	•	•	•	•	•
RENOLIN SYNGER HT	—	•	•	•	•	•
RENOLIN PentoGear 320 WT	—	•	•	•	•	•

- Performance tests were passed
- Product for reducing friction with EP/AW additives
- Product with AW/EP additives for extreme operating temperatures

Oxidation test for CKC at 95°C
Oxidation test for CKD at 121°C
Oxidation test for CKT at 150°C
Oxidation test for CKS at 150°C
Oxidation test for CKE at 95°C

- DD (Detergent/Dispersant) products
- R&O – Circulating oils with antioxidants and corrosion inhibitors AW/EP – Wear protection and high-pressure additives
- "higher temp." – for high operating temperatures
- "low friction" – low friction coefficients
- "extreme temp." – for extreme operating temperatures

RENOLIN CLP - demulsifying EP / AW gear and circulating oils

CLP-Oils (demulsifying)

Product name	Description	Density at 15 °C [kg/m³]	FLP Cleveland [°C]	Kin. Visc. at 40 °C [mm²/s]	Kin. Visc. at 100 °C [mm²/s]	VI Viscosity index	Pour-point [°C]	Main application area
RENOLIN CLP 68	High-performance gear and circulating oils with good aging stability and additives to improve corrosion protection (also combat steel and non-ferrous metal corrosion caused by moisture). Outstanding anti-wear characteristics-good EP/AW performance, excellent scuffing load carrying capacity and protection against microspitting, excellent F&B roller bearing wear protection, good demulsifying properties, very good foaming behavior, zinc-free and silicone oil-free. RENOLIN CLP oils fulfill and exceed the minimum requirements of CLP lubricating oils according to DIN 51517, Part 3 (2004), ISO 6743-6 and ISO 12925-1: CKC, CKD, US Steel 224, David Brown 51.53.10. Approved by leading gearbox manufacturers.	866	236	68	8.7	99	-24	As lubricating oils, particularly as hydraulic oils if good resistance to aging, wear protection and demulsifying properties are required. Universal hydraulic oils for all hydraulic systems, even if thermally stressed. Excellent filtration behavior.
RENOLIN CLP 100		890	240	100	11.2	98	-21	
RENOLIN CLP 150		894	250	150	14.5	96	-24	
RENOLIN CLP 220		896	260	220	18.9	96	-24	
RENOLIN CLP 320		900	255	320	24.0	95	-12	
RENOLIN CLP 460		901	270	460	30.4	95	-12	
RENOLIN CLP 680		918	270	680	36.8	88	-10	

(Refer to PI* 4-1207 for further details)

RENOLIN CLPF SUPER-EP / AW gear oils with MoS₂ (solid lubricant/ black color)

CLP-Oils/black

Product name	Description	Density at 15 °C [kg/m³]	FLP Cleveland [°C]	Kin. Visc. at 40 °C [mm²/s]	Kin. Visc. at 100 °C [mm²/s]	VI Viscosity index	Pour-point [°C]	Main application area
RENOLIN CLPF 100 SUPER	EP gear oils with synergistic chemical EP/AW additives and physical MoS ₂ -based solid lubricant additives. The MoS ₂ -based solid lubricant additives cover a wide range of temperatures in mixed friction areas, they reduce friction and have a damping effect. Excellent wear protection in mixed friction areas, good dirt holding capacity (detergent effect), excellent foaming behavior, very good F&B roller bearing wear protection, free from zinc and silicone oil. The RENOLIN CLPF SUPER series of oils surpass the minimum requirements of CLPF lubricating oils according to DIN 51517, Part 3 (2004) together with DIN 51 502, ISO 6743-6 and ISO 12925-1: CKC, CKD	891	240	100	11.2	98	-21	For highly-stressed gearboxes operating at low circumferential speeds and high loads, even when subject to shock loading, for noise reduction and for the lubrication of spindles and gearboxes in forging presses.
RENOLIN CLPF 220 SUPER		901	260	220	18.8	95	-21	
RENOLIN CLPF 320 SUPER		900	255	320	24.0	95	-14	
RENOLIN CLPF 460 SUPER		911	270	460	30.4	95	-12	
RENOLIN CLPF 680 SUPER		922	270	680	36.8	88	-10	
RENOLIN CLPF 1500 SUPER		906	240	1,500	70.5	104	-12	Mineral oil-based

RENOLIN

Industrial Lubricants



Air compressor oils

Product name	Classification Base oil	Density at 15 °C [kg/m³]	FLP Cleveland [°C]	Kin. Visc. at 40 °C [mm²/s]	Kin. Visc. at 100 °C [mm²/s]	VI Viscosity index	Pour-point [°C]	Main application area
RENOLIN SC 32	Screw compressor oils Mineral oils	871	281	32	5.2	100	-15	Mineral oil based screw compressor oils for normal oil change intervals
RENOLIN SC 46		875	236	46	7.2	117	-12	
RENOLIN SC 68		879	251	68	8.7	99	-9	
RENOLIN 503	VCL/VDL air compressor oils acc to DIN 51506 Mineral oils	878	248	68	8.6	97	-12	Oils for all air compressors requiring a VCL/VDL lubricant
RENOLIN 504		880	226	100	10.8	95	-18	
RENOLIN 505		888	268	150	14.4	90	-15	
RENOLIN COOL +	Screw compressor oils MC/ Group II oils with extra additive reserve	851	206	50	8.0	130	-18	Extended oil change intervals even when subject to high thermal loads

SLIDE WAY OIL

The perfect slideway oil for application



■ RENEP CGLP

High-performance slide-way oils for all machine tools offering excellent demulsibility, good chemical compatibility with cutting fluids, outstanding wear protection and low coefficients of friction.

■ RENEP WAYS

Universal slideway oils for the machine tool industry with powerful detergent and dispersant properties.

RENEP slideway oil - an overview of selected technical

Product name	Density @ 15 °C [kg/m³]	Flashpoint Cleveland [°C]	Kinematic Viscosity @ 40 °C [mm²/s]	Pourpoint [°C]
RENEP CGLP 68	879	220	68	-24
RENEP CGLP 220	895	240	220	-15
RENEP WAYS 68	873	240	68	-20
RENEP WAYS 220	894	260	220	-15