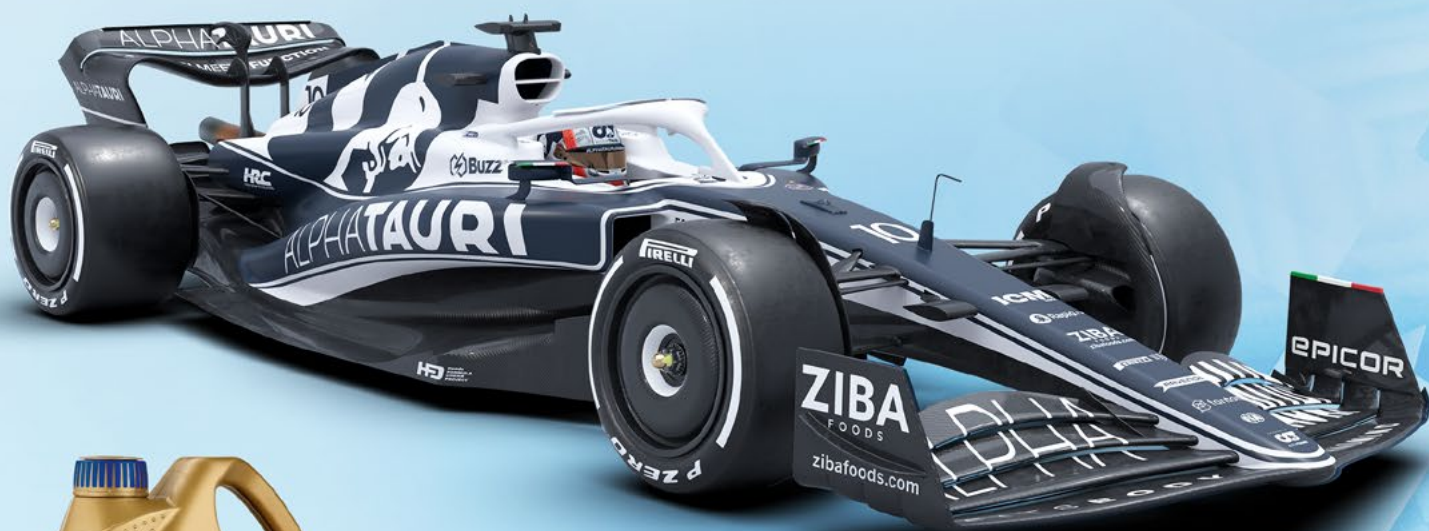




PRODUCT CATALOGUE



WWW.RAVENOL.DE



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WHY RAVENOL?



10 GOOD REASONS TO CHOOSE RAVENOL

1. History and independence

RAVENOL has been an independent manufacturer of lubricants since 1946, meaning the company can decide exactly what goes into its products.

2. Portfolio

RAVENOL offers a wide range of lubricants and operating fluids for every vehicle. That's why RAVENOL was the first company worldwide to receive an American Petroleum Institute (API) licence for the viscosity SAE 0W-16.

3. Our plant

RAVENOL products are 100% MADE IN GERMANY, and are of the same high-quality, all over the world.

4. Highly specialised

We specialise in automotive lubricants. This ensures our products are highly competitive and of outstanding quality, as proven in various forms of motorsport.

5. Low environmental impact and environmentally-friendly products

Protecting the environment is one of our company's guiding principles, proven by our DIN EN ISO 14001:2009 certification.

6. Motorsport

RAVENOL partners a wide variety of racing series and teams, such as the Aston Martin Cognizant Formula One™ Team.

7. Manufacturer partnerships

RAVENOL provides technical support to various OEM motorsport programmes (Audi, BMW, etc.).

8. A quality product: PAO-based lubricants

Our use of superior PAO technology means that our lubricants deliver outstanding performance in a host of areas, including friction, cleaning and evaporation.

9. Forgery-proof, innovative packaging

Our packaging is designed to be easy for our customers to use, and is protected against forgery by various security measures.

10. Strong marketing

Our partnerships – including Ralf Schumacher, our attendance at all significant trade fairs and our unique range of merchandise mean we have a comprehensive range of options for promoting our brand.





A Westphalian success story

Exactly 75 years ago, in Werther in Eastern Westphalia, the foundations were laid for what would later grow to become one of the most innovative companies in the field of lubricant manufacturing. Ravensberger Schmierstoffvertrieb GmbH, trading as RAVENOL, is celebrating its 75th anniversary year as a high-quality premium lubricant for various land and marine applications.

Over the decades, the RAVENOL brand has seen continuous development and transformed into a global player. In more than 100 countries worldwide, car drivers and companies in the automotive, mechanical engineering, steel and construction industries all benefit from RAVENOL's high-quality products, as do companies in the mining industry, the transportation sector and the farming sector. The extensive product portfolio now includes engine oils for passenger cars and trucks, racing oils, gear oils for automatic and manual gearboxes and drive axles, agricultural machinery oils, hydraulic oils, industrial oils, special products, greases, high-performance lubricants, vehicle maintenance products, cleaners, winter chemicals and coolants.

Outstanding products thanks to knowledge transfer

In line with its international focus, RAVENOL participates in all the significant international trade fairs in the automotive and motorcycle sector, such as Automechanika in Frankfurt or the SAS in Switzerland.

In order to meet our own standards and the standards of the market, we work in close collaboration with vehicle manufacturers (OEM) during the product development process as well as various companies from the engineering industry. Numerous approvals from leading OEMs such as Mercedes-Benz, BMW, VW or Porsche are testament to the fact that we fulfil the most stringent requirements of the automotive industry.

As a pioneer in a wide variety of fields, innovative developments generally play a fundamental role for us. Various technologies such as USVO® or CleanSynto® technology are forerunners in their fields. For example, RAVENOL EFE OW-16 was the very first engine oil in the world to receive a licenced approval from the API (American Petroleum Institute). The oil offers clear fuel savings and reduced pollutant emissions.

Even now, celebrating its 75th anniversary and as a manufacturer enjoying global success, the company has lost none of its familiar charm. Always striving to offer its customers the best possible products and outstanding service, RAVENOL has never lost its sense of responsibility toward its employees. This is the only way for us to ensure that we achieve what has made us so successful in the last 75 years in the future too.

Simply the best technology, 100% 'Made in Germany'

Worldwide

Ravensberger Schmierstoffvertrieb GmbH is now a global player. RAVENOL products are premium "Made in Germany" products. They offer the highest level of product reliability and the best service from Germany.

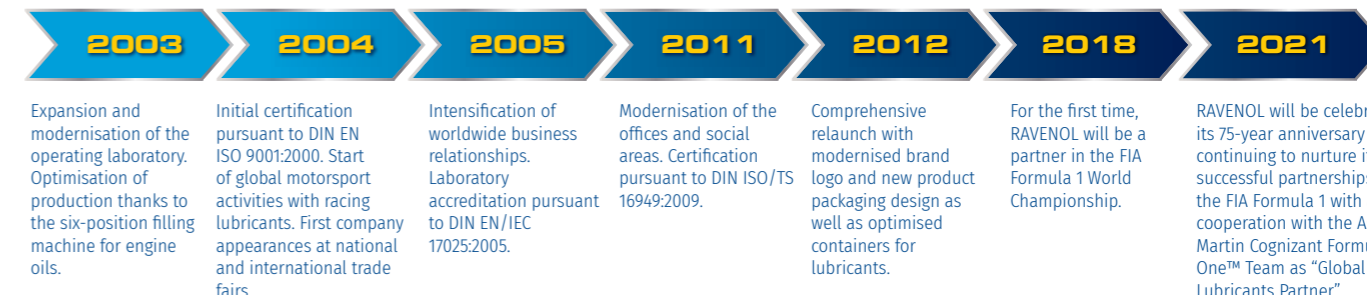
RAVENOL "Made in Germany" products are renowned around the world as premium lubricants of the highest quality. Partners of Ravensberger Schmierstoffvertrieb GmbH value the strong product reliability and service from Germany. RAVENOL is now present in over 80 countries.

Our partners are located in places including the USA, Austria, Libya, the Netherlands, Italy, Luxembourg, Switzerland, Denmark, Spain, Poland, Greece, Macedonia, Korea, China, Taiwan, Malaysia, United Arab Emirates, South Africa, Egypt, Croatia, Lithuania, Estonia, Russia, Ukraine, Moldova, Paraguay, Namibia, Serbia, Malta, Finland, Czech Republic, Romania, Slovenia, Turkmenistan, Hong Kong, Singapore, Slovakia, Iceland, Japan,

Montenegro, Belgium, Lebanon, Bulgaria, Kyrgyzstan, Kazakhstan and Belarus just to name a few.

RAVENOL has an international focus, and accordingly is represented at all the important trade fairs for the automotive supply sector. Ravensberger Schmierstoffvertrieb GmbH's technical competence is expressed in its global commitment to motorsport. We work on partnerships with top international teams and popular racing series alongside our global sales activities, encouraging our demanding customers to place their trust in our high-performance products.

RAVENOL - from yesterday to today





Quality assurance

For us, “Made in Germany” is more than just a phrase or a simple advertising message. We live by the philosophy behind this quality statement and we have set ourselves challenging goals and requirements for the quality and performance of our products.

Our internationally recognised quality management and the cooperation with a wide variety of renowned manufacturers and suppliers from the automotive industry guarantee the outstanding and consistent quality of the RAVENOL products. Numerous approvals from leading OEM (Original Equipment Manufacturers) and the certification according to IATF 16949 underpin the fulfilment of the highest requirements set by the automotive industry. This also includes the DIN EN ISO 9001 certification, which affords particular significance to documentation as well as customer-oriented processes and supplier relationships.

In addition, as an employer we are always conscious of our responsibilities toward our employees and our environment. Having attained the DIN EN ISO 14001 certification, we fulfil the requirements for a secure working environment including the Promotion of health and performance, which also includes the goal of harmonious interaction with the environment. The competence of our testing laboratory is regularly verified, as is proven by our certification in line with DIN EN ISO/IEC 17025.

Our consistently high-quality standards meet manufacturer requirements as well as the specifications of the automotive industry around the world. The international approvals granted by leading OEMs (Original Equipment Manufacturers) confirm the high quality standards of our products.

RAVENOL's OEM approvals:

We have approvals for our products from significant automotive manufacturers such as

- Daimler
- Chrysler
- VW
- BMW
- Porsche
- Ford
- Jaguar Land Rover
- MAN
- Volvo
- MTU
- Deutz
- ZF
- Cummins
- and many more.

Our high standard of quality claim is also confirmed by being listed by the API (American Petroleum Institute), NMMA (National Marine Manufacturers Association) and the ACEA (European Automobile Manufacturers' Association).

Our range

Passenger Car and Commercial Vehicle engine oils, two-stroke engine oils, rallye/racing oils, transmission fluids for automatic gearboxes, gear oils for manual gearboxes and drive axles, agricultural oils, hydraulic oils, industrial oils, brake fluids, lubricants, car care, cleaners, fuel additives, winter chemicals and coolants. We have supplemented our range with special products for the automotive sector. For fans of vintage cars, we have a variety of classic engine oils.

Not only will you find our products in the product overview, here in the catalogue or on the internet, but also in the TecDoc catalogue at specialist retailers. RAVENOL has a strong presence in the DEKRA list, which is recomplied each year.

You have the opportunity to easily and quickly find the right RAVENOL product for your needs at any time.

Don't miss out on any more news about RAVENOL products & events! Simply subscribe to our newsletter at www.ravenol.de.





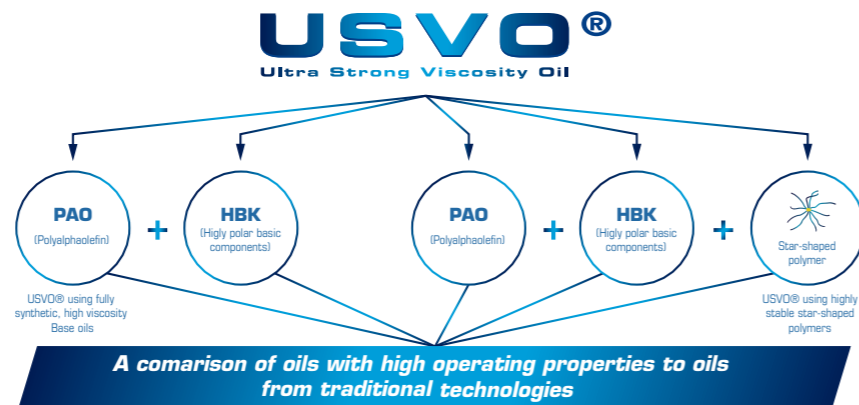
- Better engine protection**
- Improved performance**
- Optimal engine cleanliness**
- Extended oil change intervals**

USVO®

We have set ourselves the task of mastering the challenges of the lubricants of the future using technology. This work has culminated in the development of USVO® technology.

What is USVO® technology?

The requirements of lubricants for modern vehicles continue to increase. Unwelcome viscosity changes can quickly cause serious problems. In order to combat this, we have developed our USVO® lubricant technology, meaning that we can ensure high viscosity stability at both low and high temperatures. USVO® stands for Ultra Strong Viscosity Oil. Only high-quality, fully synthetic base oils and additives are used in this process.



THANKS TO THE OPTIMAL COMBINATION OF COMPONENTS, WE HAVE CREATED FORMULATIONS WITH THE FOLLOWING BENEFITS:

- **EXCELLENT HIGH TEMPERATURE VISCOSITY (HTHS AT 150 °C)**

barely any shearing loss during operation, which means that the lubricant film is permanently maintained during operation.

- **EXCELLENT PERFORMANCE AT LOW TEMPERATURES (CCS at -30 °C)**

The lubricant is always able to flow so that direct engine lubrication is guaranteed even for cold starts.

- **VERY GOOD OXIDATION STABILITY**

Oxidation-stable lubricants have increased resistance against reacting with oxygen and temperatures. This increases the lubricant service life, which permanently prevents



deposits (sludge) and maintains the lubrication properties.

- **VERY LOW EVAPORATION LOSSES**

Only a few components of the oil evaporate at high operating temperatures. As a result, the engine oil level drops only slightly and the environment is not additionally polluted by exhaust gases.

- **HIGH VISCOSITY INDEX**

a high viscosity index illustrates a weak temperature-dependent viscosity change compared to a low viscosity index.

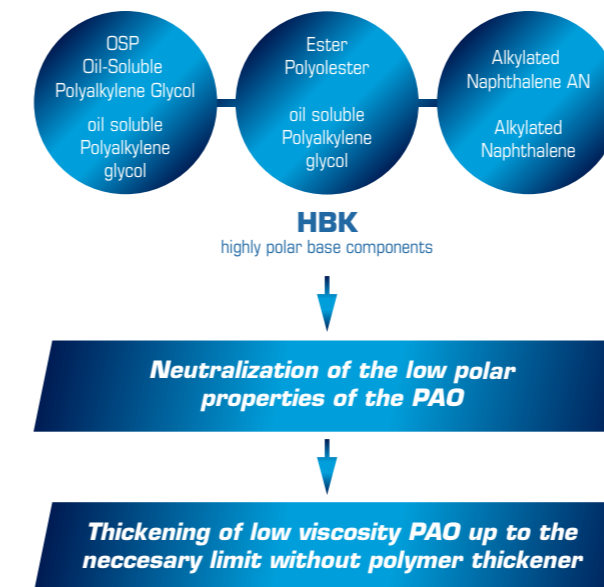
- **VERY LOW POUR POINT**

The pour point is the lowest temperature above which an oil is liquid. As a result, lubrication is guaranteed, even at the lowest temperatures.

The interaction of the properties ensures that a thick protective film is formed during vehicle operation, which remains stable even under high thermal and mechanical stresses.

USVO® WHEN USING FULLY SYNTHETIC, HIGH VISCOSITY BASE OILS

Thanks to the special combination (formulation) of the high-quality fully synthetic base oils and selected special additives (without the use of polymer thickeners), an extensive process sequence can be used to manufacture outstanding oils with excellent performance thanks to their various lubrication properties.



USVO® WHEN USING HIGHLY STABLE STAR-SHAPED POLYMERS

The SAE grades can not always be achieved for all viscosity grades using their base components alone. Procurement and

storage are very costly and cannot always be used for economic reasons. RAVENOL therefore uses special star-shaped polymers. The star-shaped structure of the stable molecular connections creates high shear stability. As a result, the viscosity remains stable across a broad operating spectrum. In addition, a significant lower quantity of the star-shaped polymers is required compared to the standard OCPs (olefin copolymers).

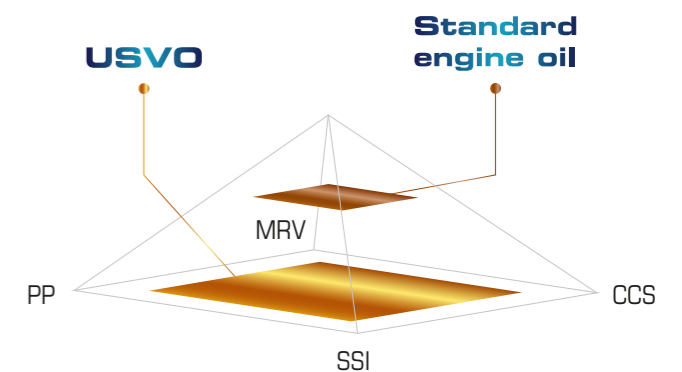
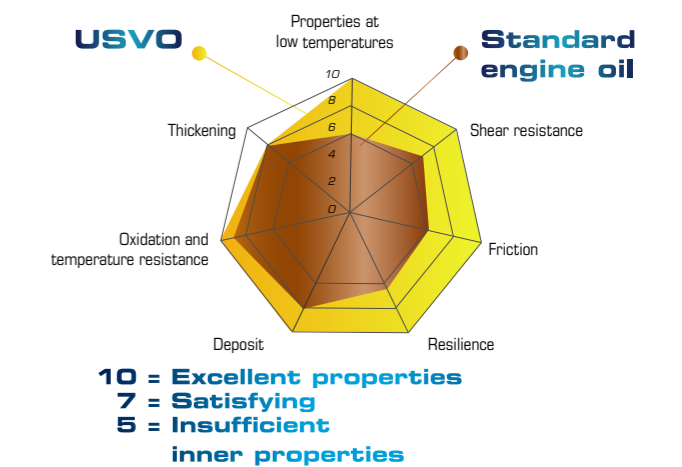
As a general rule: The fewer polymers are present, the fewer disadvantages are caused as a result of their use. Incorrect dosage can cause the following problems:

- increased contamination of the engine
- the formation of paint deposits and films

Our USVO® quality takes these special features into account and actively counteracts the disadvantages during use.

PROPERTIES OF THE RAVENOL-USVO® QUALITIES

Thanks to their technical properties, our USVO® lubricants optimise engine performance and noticeably reduce fuel consumption at the same time. This is good for the environment, as these savings entail lower exhaust gas emissions.



CCS = Low temperature viscosity
 PP = Temperature of loss of fluidity
 MRV = Low temperature viscosity when pumping through
 SSI = Mechanical shear stability

CleanSynto® SPECIAL FORMULA



CleanSynto®

Tried-and-tested formulations fulfil today's minimum requirements for standard lubricants. The technical properties are usually adjusted in such a way that vehicle operation is guaranteed and the manufacturer requirements are covered. If we look at the service life of vehicles described in the following section, we can derive additional user requirements from this.

The requirements vary according to the area of application. In the process, the use of specific additives can influence the lubrication in many different ways.

Vehicle manufacturers help themselves by recommending special maintenance intervals for wearing parts (e.g. for changing the timing belt, spark plugs/glow plugs, engine oil, etc.). Thus, it would appear that consumers are extensively informed and educated.

Standard formulations offer reduced protection and a shorter service life for engines



If damage to the engine or other costly vehicle components occurs prematurely, the consumer is on his own and has to accept expensive repairs.

During vehicle operation, friction occurs between the moving engine parts, resulting in wear particles. These tend to deposit in combination with combustion residues and other soiling. These soot and dirt particles lead to blockages to the filter, oil passages (hoses and nozzles) and the pumps. This results in the engine becoming dirty. Efficiency decreases and the danger of engine failure increases.

As a result, we have chosen to devote ourselves to preventive maintenance and use our expertise to formulate special lubricants. This means that we have successfully developed our standard formulations. The result is CleanSynto® quality, which supports the trend for extended oil change intervals and fulfils constantly increasing engine hygiene requirements.

FOR OUR FORMULATIONS, WE USE:



Light Neutral
Dark Neutral
SYNTHETIC BASE OILS AND COMPONENTS



PREMIUM ADDITIVES FOR ADJUSTING THE CLEANSYNTO® QUALITY



IMPROVED ENGINE CLEANLINESS, MAXIMISED SERVICE LIFE, IMPROVED DISPERSABILITY ABSORBS DIRT DEPOSITS

CleanSynto® quality reduces deposits of soot and dirt particles, meaning that oil reaches the most important lubrication points unhindered. As a result, your engine will stay cleaner for longer. The efficiency of the engine simultaneously increases, reducing the risk of engine failure.

IN SUMMARY, THERE ARE SO MANY BENEFITS FROM USING OUR CLEANSYNTO® LUBRICANTS:

- Fuel and cost savings**
- Protecting the environment by reducing emissions**
- Optimal operating behaviour from the lubricants**
- Optimal engine and transmission hygiene**
- Avoiding premature vehicle breakdown**

TecDoc

TecDoc is the leading provider of electronic vehicle parts information for the European market and offers quick and uncomplicated access to all data concerning the parts and consumer materials in this segment.

As a data supplier, RAVENOL is integrated into the information system run by TecDoc and the key data for RAVENOL products are linked, including descriptions from around 98% of the European vehicle inventory.

This offers the user a unique service for the purpose of identifying the individually required lubricant.

The data is updated regularly and is available to dealers and workshops as an electronic parts catalogue on DVD or as a daily updated web catalogue on the Internet. The information is provided in 28 languages, meaning that 950,000 users currently use TecDoc each quarter.

TecDoc
DATA SUPPLIER



80% less plastic waste



Bag in Box

With the Bag in Box system, RAVENOL offers a sustainable container system for 20 litre containers, optimised for simple use. In combination with the special shelf system, it allows for clean and neat storage, in addition to convenient, simple product filling.

The RAVENOL BAG IN BOX system consists of a robust outer packaging box and a plastic pouch with an integrated outlet tap. This container system guarantees both the safe transportation of our high-quality lubricants and space-saving, sustainable disposal of the container components. After the pouch has been emptied, it can simply be removed from the outer packaging box. The system saves up to 80% of empty container space compared with plastic containers of the same capacity. The space-saving shelf offers a storage capacity of 2 x 5 BAG IN BOX containers and is equipped with a drip tray that can be removed for the disposal of residues and for cleaning. The outlet taps of the containers are stored in a grooved rail, which guarantees simple and clean filling for the product.

**RAVENOL – BAG IN BOX:
Space-saving, neat,
simple**

Bag in Box is also available for our RAVENOL anti-freeze products



▶ Integrated outlet tap



▶ lockable castors with drip tray



▶ The space-saving shelf



Packaging feature – the canister

The spout features a **reclosable screw closure**.

The **special opening** prevents the formation of air bubbles. The lubricant can therefore simply, cleanly and efficiently be poured.

Small, integrated **handles** to easily pull out the spout and to screw the canister on and off.

A **removable spout** is included in the closure to pour the lubricant out with greater precision. Simple to pull out using the handle.

The **safety closure** offers certainty that the lubricant is new and undamaged.

A **large, ergonomic grip** offers good hold for any hand size.

Different container colours for simple differentiation of the different varieties:
 Gold = fully synthetic
 Silver = semi synthetic
 Yellow = mineral
 Blue = marine lubricant

Thanks to the **transparent side strips** the current fill level is visible.

Embossed litre indications make it easier to precisely read the fill level.

Attractive, **structured grip surfaces** Simplify the handling of the canister – even with greasy hands.

The dynamic structures give the container a **high-quality and sporty look**.

Secure handling through additional **recessed grip** in the container base. Simple and efficient pouring of the lubricant.

Made in Germany stamp: Quality feature for product safety.



Check product for authenticity on my.ravenol.com

Packaging feature – the label

Security against forgery: Under UV light, it is possible to see the printed "RAVENOL-GERMANY-ORIGINAL".

Label on the reverse: multilingual peelable label.

Label background in the respective container size for simple **differentiation of varieties**. The **carbon look** shows the consumer the sporty origin of the product.

Easy-to-read product descriptions

Colours for each variety for simple differentiation:
 Gold = fully synthetic
 Silver = semi synthetic
 Yellow = mineral
 Blue = marine lubricant

Made in Germany: Production in Germany – a strong quality feature.

The **large RAVENOL logo** makes the brand recognisable and shows the manufacturer of the internationally renowned lubricant brand.

Easy-to-read viscosity information

Additional quality feature

The **technical specifications and approvals** at a glance.

Details for the **disposal** of the container.

Area for **OEM approval logos**.

The significant **content information** is recognisable at first glance.

RAVENOL-Hologram for forgery protection.

RAVENOL in motorsport

Scuderia AlphaTauri launches the AT03 ahead of the 2022 Formula 1 season

Scuderia AlphaTauri today revealed its 2022 challenger – the AT03 - alongside its drivers, Pierre Gasly and Yuki Tsunoda, in an innovative digital launch, which merges the virtual and real worlds in a pioneering video production, to kick off the new season in style. The RAVENOL logo is displayed on the nose of the new AT03, as well as on the driver's overalls and team kit.

Pierre Gasly said: "This year sees a huge change to the car as, due to the new regulations, the look and design is completely different, so the team has had to start from a clean sheet of paper. We won't know the true performance of the AT03 until we get it out on track at pre-season testing in Barcelona but so far, I think it looks great and I am very excited to get this new season started!"

"It really does look great." Yuki Tsunoda confirmed, "Of course we've not seen the real car on track yet, but the new shape and design are really cool, and I think the livery suits it really well and I hope everyone enjoys the launch video."

The actual AT03 will make its first official F1 appearance at next week's Barcelona test. Scuderia AlphaTauri and RAVENOL are in good spirits and just can't wait to find out more about the competitiveness of their new F1 single-seater, the AT03.

The dates for the 2022 Formula 1 winter tests are:

February 23-25, 2022, in Barcelona (Spain)

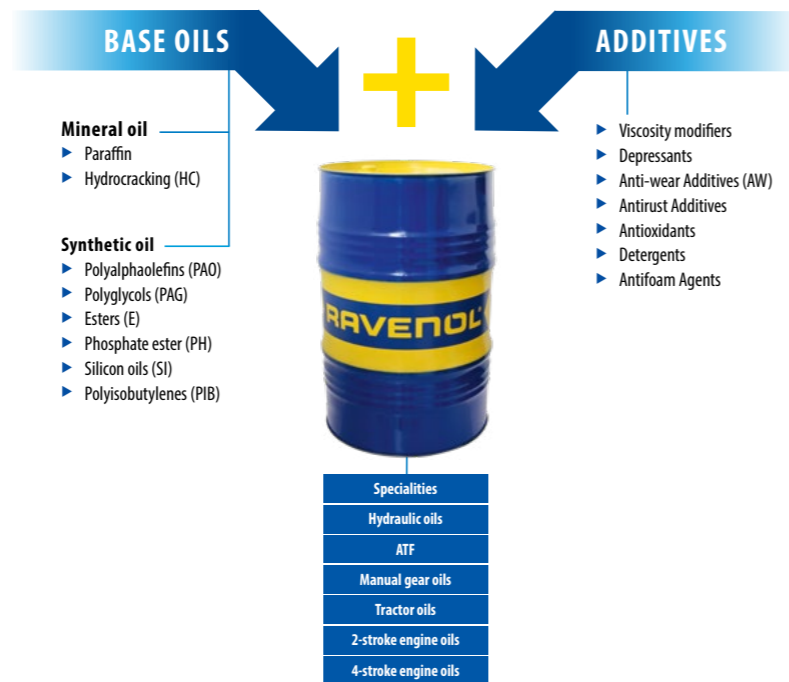
March 10-12, 2022 in Sachir (Bahrain)



Standards, specifications & classes of RAVENOL lubricants

The suitability of a RAVENOL lubricant to provide a solution to a particular lubrication task must be clarified with the relevant machine manufacturers and plant manufacturers, as well as the technical lubricant services of mineral oil companies.

Lubricants are used for lubrication purposes and serve to reduce friction and wear and tear as well as for power transmission, cooling, vibration damping, sealing effect and corrosion protection. A distinction is made between liquid lubricants (lubricating oils), pasty lubricants (lubricating greases) and solid lubricants as well as gaseous lubricants (air).



Synthetic oils	Miscibility with mineral oils
Polyalphaolefins (PAO)	excellent
Polyglycols (PAG)	bad
Ester oils (E)	good
Phosphate esters (PH)	bad
Silicon oils (SI)	bad

Viscosity classification of engine oils in accordance with SAE J300

The basis for this classification are the SAE viscosity grades of the Society of Automotive Engineers Inc. New York for engine oils and gear oils, in the version dated January 2015.

A basic distinction is made between summer oils and winter oils. Multi-grade oils (e.g. SAE 10W-40) fulfil the requirements of the cold-flow characteristics of a winter grade (SAE 10W) and have a kinematic viscosity at 100°C which corresponds to a SAE grade without additional letters (e.g. SAE 40 = summer).

The greater the difference between the minimum and maximum value of the SAE grade, the broader the temperature range in which the oil used can be deployed.

SAE grade	Cold Cranking (CCS)	Cold Pumping (MRV)	Kinematic viscosity, 100 °C		HTHS, 150 °C
	(cP @ T °C)	(cP @ T °C)	(cSt)	(cSt)	(cP)
	Maximum	Maximum	Minimum	Maximum	Maximum
0W	6,200 @ -35	60,000 @ -40	3.80	-	-
5W	6,600 @ -30	60,000 @ -35	3.80	-	-
10W	7,000 @ -20	60,000 @ -30	4.10	-	-
15W	7,000 @ -15	60,000 @ -25	5.60	-	-
20W	9,500 @ -15	60,000 @ -20	5.60	-	-
25W	13,000 @ -10	60,000 @ -15	9.30	-	-
8	-	-	4.00	< 6.1	1.70
12	-	-	5.00	< 7.1	2.00
16	-	-	6.10	< 8.2	2.30
20	-	-	6.90	< 9.3	2.60
30	-	-	9.30	≤ 12.5	2.90
40	-	-	12.50	≤ 16.3	3.50 (0W-40, 5W-40, 10W-40)
40	-	-	12.50	≤ 16.3	3.70 (15W-40, 20W-40, 25W-40, 40)
50	-	-	16.30	≤ 21.9	3.70
60	-	-	21.90	≤ 26.1	3.70

1 mPa·s = 1cP; 1mm²/s = 1 cSt

ACEA Specifications - Guidelines for European Vehicles

Three main factors in particular are influencing the European market:

- extended oil change intervals
- reduces fuel consumption
- exhaust gas composition

The different uses of the engine oils are designated using letters in the European ACEA 2016 sequences:

- A/B for passenger car petrol & diesel engines
- C for passenger cars with diesel particulate filters
- E for commercial vehicles-diesel engines

ACEA A/B: Petrol and diesel engine oils – High “SAPS values”

A1/B1	Category deleted (since ACEA 2016)
A3/B3	Shear-stable “STAY in GRADE” oils for use in petrol and diesel passenger car engines and light van diesel engines and/or for extended oil change intervals which were specified by engine manufacturers and/or for year-round use of low viscosity oils, and/or for heavy conditions of use, as defined by engine manufacturers.
A3/B4	Shear-stable “STAY in GRADE” oils, recommended for use in petrol and diesel passenger car engines and light van diesel engines, but also for applications such as those described under A3/B3.
A5/B5	Shear-stable “STAY in GRADE” oils for use with extended oil intervals in petrol and diesel passenger car engines and light van diesel engines. Developed to allow for the use of low-friction oils with low viscosity with a high temperature and shear stability (HTHS) viscosity of 2.9 to 3.5 mPa*s. These oils are not suitable for some vehicle engines. In Case of doubt seek for information in vehicle handbooks or retailers.
A7/B7	NEW in 2021: Shear-stable “STAY in GRADE” oils for use with extended oil intervals in petrol and diesel passenger car engines and light van diesel engines. Compared with A5/B5, these engine oils also offer low-speed pre-ignition (LSPI) protection and wear protection for turbocharged gasoline DI engines at low engine speeds, and turbocharger-compressor deposit protection (TCCD) for modern DI diesel engines.

ACEA C: Catalyst & GPF/DPF suitable engine oils for gasoline and diesel engines - low “SAPS values”.

· Note: These oils increase the service life of DPF/GPF and TWC and facilitate fuel economy for the vehicle.

· Warning: Some of these categories are not suitable for certain engines. Seek information from vehicle handbooks or retailers in Case of doubt.

C1	Category deleted (since ACEA 2021)
C2	Shear-stable “STAY in GRADE” oils with medium SAPS values. Intended for use as a catalyst-suitable oil in vehicles with extended oil change intervals and for all types of modern exhaust aftertreatment systems in high performance passenger cars and light van petrol and DI diesel engines capable of using low friction and low viscosity oils with a minimum HTHS viscosity of 2.9 mPa*s.
C3	Shear-stable “STAY in GRADE” oils with medium SAPS values. Intended for use as a catalyst-suitable oil in vehicles with extended oil change intervals and for all types of modern exhaust aftertreatment systems in high performance passenger cars and light van petrol and DI diesel engines capable of using low friction and low viscosity oils with a minimum HTHS viscosity of 3.5 mPa*s.
C4	Shear-stable “STAY in GRADE” oils with low SAPS values. Intended for use as a catalyst-suitable oil in vehicles with extended oil change intervals and for all types of modern exhaust aftertreatment systems in high performance passenger cars and light van petrol and DI diesel engines capable of using low friction and low viscosity oils with a minimum HTHS viscosity of 3.5 mPa*s.
C5	Shear-stable “STAY in GRADE” oils with medium SAPS values and improved fuel savings. Intended for use as a catalyst-suitable oil in vehicles with extended oil change intervals and for all types of modern exhaust aftertreatment systems in high performance passenger cars and light van petrol and DI diesel engines capable of using low friction and low viscosity oils with a minimum HTHS viscosity of 2.6 mPa*s.
C6	NEW in 2021: Shear-stable “STAY in GRADE” oils with medium SAPS values and improved fuel savings. Compatible with exhaust aftertreatment systems. Intended for use with extended oil change intervals in passenger cars and light petrol and DI diesel engines, which are designed for engine oils with an HTHS viscosity of at least 2.6 mPa*s and have been approved by the manufacturer. Compared with C5, these engine oils also offer low-speed pre-ignition (LSPI) protection and wear protection for turbocharged petrol DI engines at low engine speeds, and turbocharger-compressor deposit protection (TCCD) for modern DI diesel engines.
Abbreviations:	
SAPS: Sulphate Ash, Phosphorus, Sulphur	GPF: Gasoline Particle Filter
HTHS: High temperature / High shear rate viscosity	TWC: Three Way Catalyst
DI: Direct Injector	TCCD: Turbo Charger Compressor Deposit
DPF: Diesel Particle Filter	

ACEA for heavy diesel engines for commercial vehicles

E4	Shear-stable "STAY IN GRADE" oils, which guarantee excellent piston cleanliness, wear protection, efficient prevention of soot deposits and stable lubrication. Recommended for use in heavy high-performance diesel engines which fulfil the exhaust gas norms Euro I, Euro II, Euro III, Euro IV and Euro V under very strenuous conditions. Extremely long service intervals are possible, depending on the manufacturer specifications. These oils are for engines without particle filters and for some EGR engines and some engines with SCR NOx reduction system. The recommendations for use from the engine manufacturers may differ. Seek information from vehicle handbooks or retailers in case of doubt. Special authorisation from the manufacturer is required
E6	Shear-stable "STAY IN GRADE" oils, which guarantee excellent piston cleanliness, wear protection, efficient prevention of soot deposits and stable lubrication. Recommended for use in heavy high-performance diesel engines which fulfil the exhaust gas norms Euro I, Euro II, Euro III, Euro IV and Euro V under very strenuous conditions. Extremely long service intervals are possible, depending on the manufacturer specifications. These oils are for EGR engines with or without particle filters and for engines with SCR Nox reduction systems. E6 is prescribed for engines equipped with particle filters and has been developed for use in combination with fuels with low sulphur content. The recommendations of engine manufactures for the use may differ. Seek information from vehicle handbooks or retailers in case of doubt. Special authorisation from the manufacturer is required
E7	Shear-stable "STAY IN GRADE" oils control piston cleanliness and prevent bore polishing. They also stand out thanks to high wear protection, low deposits in the turbocharger and stable lubrication. Recommended for use in heavy high-performance diesel engines which fulfil the exhaust gas norms Euro I, Euro II, Euro III, Euro IV and Euro V under very strenuous conditions. Extremely long service intervals are possible, depending on the manufacturer specifications. These oils are for engines without particle filters, for most EGR engines and some engines with SCR NOx reduction system. The recommendations for use from the engine manufacturers may differ. Seek information from vehicle handbooks or retailers in case of doubt. Special authorisation from the manufacturer is required
E9	Shear-stable "STAY IN GRADE" oils control piston cleanliness and prevent bore polishing. They also stand out thanks to high wear protection, low deposits in the turbocharger and stable lubrication. Recommended for use in heavy high-performance diesel engines which fulfil the exhaust gas norms Euro I, Euro II, Euro III, Euro IV and Euro V under very strenuous conditions. Extremely long service intervals are possible, depending on the manufacturer specifications. These oils are for engines with and without particle filters, for most EGR engines and most engines with SCR NOx reduction system. E9 is prescribed for engines equipped with particle filters and has been developed for use in combination with fuels with low sulphur content. The recommendations for use from the engine manufacturers may differ. Seek information from vehicle handbooks or retailers in case of doubt. Special authorisation from the manufacturer is required



API Classification have been made by AMERICAN PETROLEUM INSTITUTE API, ENGINE OIL LICENSING AND CERTIFICATION SYSTEM EOLCS.

Engine Oil Guide

1. Performance Level:

Motor oils designed for cars, vans, and light trucks with gasoline engines fall under API's "S" (Service) categories. Motor oils designed for heavy duty trucks and vehicles with diesel engines fall under API's "C"(Commercial) categories. Please see the Gasoline Engines and Diesel Engines charts for descriptions of current and obsolete API service categories.

2. Viscosity Grade:

Measure of oil's thickness and ability to flow at certain temperatures. Vehicle requirements may vary. Follow your vehicle manufacturer's recommendations on SAE oil viscosity grade.

3. Resource Conserving:

"Resource Conserving" applies to oils intended for gasoline-engine cars, vans, and light trucks. Widespread use of "Resource Conserving" oils may result in an overall saving of fuel in the vehicle fleet as a whole. (Energy Conserving is obsolete since the end of 2016.)

4. Multiple Performance Levels

Oils designed for diesel engine service might also meet gasoline engine service. For these oils the designation is "C" category first followed by the "S" category. "C" category oils have been formulated primarily for diesel engines and may not provide all of the performance requirements consistent with vehicle manufacturers' recommendations for gasoline fueled engines.

GUIDE TO SAE VISCOSITY GRADES OF ENGINE OIL FOR PASSENGER CARS

Multigrade oils such as SAE 5W-30 and 10W-30 are widely used because, under all but extremely hot or cold conditions they are thin enough to flow at low temperatures and thick enough to perform satisfactorily at high temperatures. Note that vehicle requirements may vary.

If lowest expected outdoor temperature is	Typical SAE Viscosity Grades for Passenger Cars			
0°C (32°F)	0W-16	0W-30	5W-30	10W-40
-18°C (0°F)	0W-20	5W-20	10W-30	20W-50
Below -18°C (0°F)	0W-16	0W-30	5W-30	
	0W-20	5W-20		

Follow your vehicle manufacturer's recommendations on SAE oil viscosity grade.

The current and previous API Service Categories are listed below. Vehicle owners should refer to their owner's manuals before consulting these charts. Oils may have more than one performance level.

For automotive gasoline engines, the latest engine oil service category includes the performance properties of each earlier category. If an automotive owner's manual calls for an API SJ or SL oil, an API SM oil will provide full protection. For diesel engines, the latest category usually – but not always – includes the performance properties of each earlier category.



API S for GASOLINE ENGINES

SP	Current: Introduced in May 2020, designed to provide protection against low-speed pre-ignition (LSPI), timing chain wear protection, improved high temperature deposit protection for pistons and turbochargers, and more stringent sludge and varnish control. API SP with Resource Conserving matches ILSAC GF-6A by combining API SP performance with improved fuel economy, emission control system protection and protection of engines operating on ethanol-containing fuels up to E85.
SN	Current: For 2020 and older automotive engines.
SM	Current: For 2010 and older automotive engines.
SL	Current: For 2004 and older automotive engines.
SJ	Current: For 2001 and older automotive engines.
SH	Obsolete: For 1996 and older engines.
SG	Obsolete: Not suitable for use in most gasoline-powered automotive engines built after 1993. May not provide adequate protection against build-up of engine sludge, oxidation or wear.
SF	Obsolete: Not suitable for use in most gasoline-powered automotive engines built after 1988. May not provide adequate protection against build-up of engine sludge.
SE	Obsolete: CAUTION: Not suitable for use in gasoline-powered automotive engines built after 1979.
SD	Obsolete: CAUTION: Not suitable for use in gasoline-powered automotive engines built after 1971. Use in more modern engines may cause unsatisfactory performance or equipment harm.
SC	Obsolete: CAUTION: Not suitable for use in gasoline-powered automotive engines built after 1967. Use in more modern engines may cause unsatisfactory performance or equipment harm.
SB	Obsolete: CAUTION: Not suitable for use in gasoline-powered automotive engines built after 1951. Use in more modern engines may cause unsatisfactory performance or equipment harm.
SA	Obsolete: CAUTION: Contains no additives. Not suitable for use in gasoline-powered automotive engines built after 1930. Use in more modern engines may cause unsatisfactory performance or equipment harm.

DIESEL ENGINES

API FA-4	Current: describes certain XW-30 oils specifically formulated for use in select high-speed four-stroke cycle diesel engines designed to meet 2017 model year on-highway greenhouse gas (GHG) emission standards. These oils are formulated for use in on-highway applications with diesel fuel sulfur content up to 15 ppm. Refer to individual engine manufacturer recommendations regarding compatibility with API FA-4 oils. API FA-4 oils are blended to a high temperature high shear (HTHS) viscosity range of 2.9cP-3.2cP to assist in reducing GHG emissions. These oils are especially effective at sustaining emission control system durability where particulate filters and other advanced aftertreatment systems are used. API FA-4 oils are designed to provide enhanced protection against oil oxidation, viscosity loss due to shear, and oil aeration as well as protection against catalyst poisoning, particulate filter blocking, engine wear, piston deposits, degradation of low- and high-temperature properties, and soot-related viscosity increase. API FA-4 oils are not interchangeable or backward compatible with API CK-4, CJ-4, CI-4 with CI-4 PLUS, CI-4, and CH-4 oils. Refer to engine manufacturer recommendations to determine if API FA-4 oils are suitable for use. API FA-4 oils are not recommended for use with fuels having greater than 15 ppm sulfur. For fuels with sulfur contents greater than 15 ppm, refer to engine manufacturer recommendations.
CK-4	Current: describes oils for use in high-speed four-stroke cycle diesel engines designed to meet 2017 model year on-highway and Tier 4 non-road exhaust emission standards as well as for previous model year diesel engines. These oils are formulated for use in all applications with diesel fuels ranging in sulfur content up to 500 ppm. However, the use of these oils with greater than 15 ppm sulfur fuel may impact exhaust aftertreatment system durability and/or oil drain interval. API CK-4 oils are especially effective at sustaining emission control system durability where particulate filters and other advanced aftertreatment systems are used. API CK-4 oils are designed to provide enhanced protection against oil oxidation, viscosity loss due to shear, and oil aeration as well as protection against catalyst poisoning, particulate filter blocking, engine wear, piston deposits, degradation of low- and high-temperature properties, and soot-related viscosity increase. API CK-4 oils exceed the performance criteria of API CJ-4, CI-4 with CI-4 PLUS, CI-4, and CH-4 and can effectively lubricate engines calling for those API Service Categories. When using CK-4 oil with higher than 15 ppm sulfur fuel, consult the engine manufacturer for service interval recommendations.
CJ-4	Current: For high-speed four-stroke cycle diesel engines designed to meet 2010 model year on-highway and Tier 4 nonroad exhaust emission standards as well as for previous model year diesel engines. These oils are formulated for use in all applications with diesel fuels ranging in sulfur content up to 500 ppm (0.05% by weight). However, the use of these oils with greater than 15 ppm (0.0015% by weight) sulfur fuel may impact exhaust aftertreatment system durability and/or drain interval. CJ-4 oils are especially effective at sustaining emission control system durability where particulate filters and other advanced aftertreatment systems are used. Optimum protection is provided for control of catalyst poisoning, particulate filter blocking, engine wear, piston deposits, low- and high-temperature stability, soot handling properties, oxidative thickening, foaming, and viscosity loss due to shear. API CJ-4 oils exceed the performance criteria of API CI-4 with CI-4 PLUS, CI-4, CH-4, CG-4 and CF-4 and can effectively lubricate engines calling for those API Service Categories. When using CJ-4 oil with higher than 15 ppm sulfur fuel, consult the engine manufacturer for service interval.

DIESEL ENGINES

CI-4	Current: Introduced in 2002. For high-speed, four-stroke engines designed to meet 2004 exhaust emission standards implemented in 2002. CI-4 oils are formulated to sustain engine durability where exhaust gas recirculation (EGR) is used and are intended for use with diesel fuels ranging in sulfur content up to 0.5% weight. Can be used in place of CD, CE, CF-4, CG-4, and CH-4 oils. Some CI-4 oils may also qualify for the CI-4 PLUS designation.
CH-4	Current: Introduced in 1998. For high-speed, four-stroke engines designed to meet 1998 exhaust emission standards. CH-4 oils are specifically compounded for use with diesel fuels ranging in sulfur content up to 0.5% weight. Can be used in place of CD, CE, CF-4, and CG-4 oils.
CG-4	Obsolete: Introduced in 1995. For severe duty, high-speed, four-stroke engines using fuel with less than 0.5% weight sulfur. CG-4 oils are required for engines meeting 1994 emission standards. Can be used in place of CD, CE, and CF-4 oils.
CF-4	Obsolete: Introduced in 1990. For high-speed, four-stroke, naturally aspirated and turbocharged engines. Can be used in place of CD and CE oils.
CF-2	Expired Introduced in 1994. For severe duty, two-stroke-cycle engines. Can be used in place of CD-II oils.
CF	Expired Introduced in 1994. For off-road, indirect-injected and other diesel engines including those using fuel with over 0.5% weight sulfur. Can be used in place of CD oils.
CE	Obsolete: CAUTION: Not suitable for use in most diesel-powered automotive engines built after 1994.
CD-II	Obsolete: CAUTION: Not suitable for use in most diesel-powered automotive engines built after 1994.
CD	Obsolete: CAUTION: Not suitable for use in most diesel-powered automotive engines built after 1994.
CC	Obsolete: CAUTION: Not suitable for use in diesel-powered engines built after 1990.
CB	Obsolete: CAUTION: Not suitable for use in diesel-powered engines built after 1961.
CA	Obsolete: CAUTION: Not suitable for use in diesel-powered engines built after 1959.

The ILSAC (International Standardization and Approval Committee) uses together with another American Institute and the JAMA (Japan Automobile Manufacturers Association) the API Classifications for an individual ILSAC Standard:

GF-6	Provide protection against low-speed pre-ignition (LSPI), timing chain wear protection, improved high temperature deposit protection for pistons and turbochargers, more stringent sludge and varnish control, improved fuel economy, enhanced emission control system protection and protection of engines operating on ethanol-containing fuels up to E85.
GF-6A	Current: introduced in May 2020 for oil viscosities a slow as 0W-20.
GF-6B	Current: introduced in May 2020 for engines requiring 0W-16 oils.
GF-5	Current: Introduced in October 2010, designed to provide improved high temperature deposit protection for pistons and turbochargers, more stringent sludge control, improved fuel economy, enhanced emission control system compatibility, seal compatibility, and protection of engines operating on ethanol-containing fuels up to E85. (obsolete on May 1, 2021)
GF-4	Obsolete: Use GF-6A where GF-4 is recommended.
GF-3	Obsolete: Use GF-6A where GF-3 is recommended.
GF-2	Obsolete: Use GF-6A where GF-2 is recommended.
GF-1	Obsolete: Use GF-6A where GF-1 is recommended.

MIL-Specifications (Military Standard in USA):

MIL-L Lubricants

MIL-G Greases, Hydraulic fluids

Engine oils for passenger cars - USVO®

With our RAVENOL USVO® technology, we offer particularly high-quality and durable oils. Our USVO® lubricants are characterised by their exceptional formulations and ingredients, providing a continuous protective film even under high thermal and mechanical strain. They have extremely high shear and oxidation stability and, due to their low evaporation loss and the associated reduced pollutant emissions, they are gentle on the environment.



RAVENOL Extra Fuel Economy EFE

SAE 0W-16 | API SP (RC)

PAO (polyalphaolefin)-based, fully synthetic engine oil with special USVO® technology, as well as tried-and-tested CleanSynto® technology for passenger car petrol engines with and without turbocharger and direct injection.

Honda 08215-99974, 08216-99974, 08232-P99S1LHE, Honda Ultra Next, Ultra Green, Hybrid Engine, Nissan KLANM-01A04 Extra Save X Eco, Mitsubishi MZ102661, MZ102662, Mitsubishi DiaQueen ECO Plus, Toyota 08880-11005

Art. No.: 1111103



RAVENOL High Fuel Economy HFE

SAE 5W-16 | API SN

PAO (polyalphaolefin)-based, fully synthetic engine oil with special USVO® technology, as well as tried-and-tested CleanSynto® technology for passenger car petrol and diesel engines with and without turbocharger and direct injection.

Honda 08215-99974, 08216-99974, 08232-P99S1LHE, Honda Ultra Next, Ultra Green, Hybrid Engine, Nissan KLANM-01A04 Extra Save X Eco, Mitsubishi MZ102661, MZ102662, Mitsubishi DiaQueen ECO Plus, Toyota 08880-11005

Art. No.: 1111104



RAVENOL Eco Synth ECS

SAE 0W-20 | API SN(RC) | ACEA C5

PAO (polyalphaolefin)-based, fully synthetic engine oil with special USVO® technology, as well as tried-and-tested CleanSynto® technology for passenger car petrol and diesel engines with and without turbocharger and direct injection.

ILSAC GF-5, Resource Conserving, MB 229.71, Ford WSS-M2C947-A, GM 6094M, Honda/Acura HTO-6, Chrysler MS-6395, Mitsubishi, Nissan, Mazda, Suzuki, Toyota, Jaguar Land Rover STJLR.51.5122

Art. No.: 1111102



RAVENOL DFE

SAE 0W-20 | API SP (RC), API SN Plus

PAO (polyalphaolefin)-based, fully synthetic engine oil with special USVO®- and tried-and-tested CleanSynto® technology for passenger car petrol engines with and without turbocharger e.g. Turbo GDI and direct injection. Prevents low-speed pre-ignition (LSPI)

ILSAC GF-6A, GM dexos1™ Gen 2, Ford WSS-M2C947-A/-B1, Chrysler MS6395, MS-13340

Art. No.: 1111109



RAVENOL EFS Eco Fullsynth

SAE 0W-20 | SN Plus, SN (RC) | ACEA C5

PAO (polyalphaolefin)-based, fully synthetic engine oil with special USVO® technology, as well as tried-and-tested CleanSynto® technology for passenger car petrol and diesel engines with and without turbocharger and direct injection.

ILSAC GF-5, BMW Longlife-17 FE+, VOLVO VCC RBS0-2AE 0W-20- Service Fill, MB 229.71, Chrysler MS-13340, Opel/Vauxhall (ex GM Europa) OV0401547 (ex Dexos2 gen 2), Honda, Nissan, Mazda, Suzuki, Toyota

Art. No.: 1111105



RAVENOL VSE

SAE 0W-20 | ACEA C5

PAO (polyalphaolefin)-based, fully synthetic, low friction engine oil with CleanSynto® technology for petrol and diesel passenger car engines with and without turbocharger and direct fuel injection.

VV 508 00/509 00 Porsche C20

Art. No.: 1111112





**RAVENOL SSV
Fuel Economy**

SAE 0W-30 | API SL | ACEA A5/B5

PAO (Polyalphaolefin) based, fully synthetic low friction motor oil with special USVO® and proven CleanSynto® technology for passenger car petrol and diesel engines with and without turbo-charging and direct injection.

VOLVO VCC 95200377, MB 229.6

Art. No.: 1111145



RAVENOL FES

SAE 0W-30 | ACEA C2

PAO (polyalphaolefin)-based, fully synthetic engine oil with special USVO® technology, as well as tried-and-tested CleanSynto® technology for passenger car petrol and diesel engines with and without turbocharger and direct injection.

Chrysler MS-13340; FIAT 9.55535-DS1/GS1; IVECO 18-1811 CLASSE SC1 LV; Jaguar Land Rover STJLR.03.5007; PSA B71 2290, B71 2312

Art. No.: 1111146



RAVENOL VSF

SAE 0W-30 | ACEA C2

PAO (polyalphaolefin)-based, fully synthetic engine oil with special USVO® technology, as well as tried-and-tested CleanSynto® technology for passenger car petrol and diesel engines with and without turbocharger and direct injection.

Jaguar Land Rover STJLR.03.5007, Ford WSS-M2C950-A

Art. No.: 1111107



RAVENOL Super Synthetik Öl SSL

SAE 0W-40 | API SN/CF | ACEA A3/B4

PAO (polyalphaolefin)-based, fully synthetic engine oil with special USVO® technology, as well as tried-and-tested CleanSynto® technology for passenger car petrol and diesel engines with and without turbocharger and direct injection.

MB 229.3, MB 229.5, VW 502 00 / 505 00, BMW Longlife-01, Porsche A40, Renault RN0700 / RN0710, Fiat 9.55535-M2, Chrysler MS-12633, Chrysler MS-10725, Ford WSS-M2C937-A

Art. No.: 1111108



RAVENOL DXG

SAE 5W-30 | API SN(RC)

PAO (polyalphaolefin)-based, fully synthetic engine oil with special USVO® technology, as well as tried-and-tested CleanSynto® technology for passenger car petrol engines with and without turbocharger and direct injection.

ILSAC GF-5, Resource Conserving, GM dexos1™ Gen 2, Chrysler MS-6395, MS-13340; Fiat 9.55535-CR1, Ford WSS-M2C946-A/-B1, Ford WSS-M2C929-A, Honda/Acura HTO-06

Art. No.: 1111124



RAVENOL FDS

SAE 5W-30 | API SL / CF | ACEA A1 / B1, A5 / B5

PAO (polyalphaolefin)-based, fully synthetic engine oil with special USVO® technology, as well as tried-and-tested CleanSynto® technology for passenger car petrol engines with and without turbocharger and direct injection.

Renault RN0700, FORD WSS-M2C913-D (overlaps FORD WSS-M2C913-A/B/C), Fiat 9.55535-G1, JAGUAR LAND ROVER STJLR.03.5003, MB 229.6

Art. No.: 1111139



RAVENOL VSW

SAE 0W-30 | ACEA C3

PAO (polyalphaolefin)-based, fully synthetic, low friction engine oil with USVO® technology for passenger cars with and without turbocharger and direct fuel injection.

VW 504 00 / 507 00 Chrysler MS-11106

Art. No.: 1111106



RAVENOL SSO

SAE 0W-30 | API SN / CF | ACEA A3/B4

PAO (polyalphaolefin)-based, fully synthetic engine oil with special USVO® technology, as well as tried-and-tested CleanSynto® technology for passenger car petrol and diesel engines with and without turbocharger and direct injection.

VOLVO VCC 95200356 (Service Fill), MB 229.5, VW 502 00 / 503 01(Audi) / 505 00, BMW Longlife-01, BMW Longlife-98, GM-LL-A-025, GM-LL-B-025, Renault RN0700 / RN0710

Art. No.: 1111100



RAVENOL Arctic Low SAPS ALS

SAE 0W-30 | ACEA C3

PAO (polyalphaolefin)-based, fully synthetic engine oil with special USVO® technology, as well as tried-and-tested CleanSynto® technology for petrol and diesel engines in high-performance vehicles and light transporters and delivery vehicles with diesel particulate filter DPF and 3-way catalytic converter TWC which require a minimum HTHS og 3.5 mPa*s.

MB 229.51, BMW Longlife-04, Honda, Nissan, Mazda, Suzuki, Toyota, Chrysler MS-11116

Art. No.: 1111137



RAVENOL VMP

SAE 5W-30 | API SN | ACEA C3

PAO (polyalphaolefin)-based, fully synthetic engine oil with special USVO® technology, as well as tried-and-tested CleanSynto® technology for passenger car petrol and diesel engines, including with DPF and TWC. Extended oil change intervals. Fulfils EURO IV and EURO V norm for exhaust gas reductions. Multi oil.

BMW Longlife-04, VW 504 00 / 507 00 (for Europe and North America), MB 229.51, MB 229.31, Porsche C30 (Cayenne V6 and all PORSCHE hybrid cars), Fiat 9.55535-S1, Audi/Volkswagen G 052 195 M2, G 052 195 M4, G 052 195 M6, BMW 83 21 0 398 507, BMW/Mini 83 21 0 398 508, Mercedes Benz 000 989 89 01 10, Chrysler MS-11106, Audi Motorsport V31 748 026

Art. No.: 1111122



RAVENOL VSI

SAE 5W-40 | API SN/CF | ACEA A3/B4

PAO (polyalphaolefin)-based, fully synthetic engine oil with special USVO® technology, as well as tried-and-tested CleanSynto® technology for passenger car petrol and diesel engines with and without turbocharger and direct injection.

MB 229.3, MB 226.5, VW 502 00 / 505 00, BMW Longlife-01, Porsche A40 (except for Cayenne V6), Opel GM-LL-B-025, Fiat 9.55535-H2, Chrysler MS-10850, MS-10896, RENAULT RN0700, RN0710, PSA B71 2296

Art. No.: 1111130



RAVENOL VollSynth Turbo VST

SAE 5W-40 | API SN / CF | ACEA A3 / B4

PAO (polyalphaolefin)-based, fully synthetic engine oil with special USVO® technology, as well as tried-and-tested CleanSynto® technologies for passenger car petrol and diesel engines with and without turbocharger and direct injection. Minimises fuel consumption, good cold-start characteristics.

MB 229.3, MB 226.5, Porsche A40, VW 502 00 / 505 00, BMW Longlife-01, Opel GM-LL-B-025, Renault RN0700 / RN0710, Chrysler MS-12991 (replaces MS-10896), MS-10850, MS-10725 (Fiat 9.55535-GH2 and Fiat 9.55535-Z2), PSA B71 2296

Art. No.: 1111136

Engine oils for passenger cars - CleanSynto®

A high level of expertise, technical development and high-quality components are what makes RAVENOL engine oils stand out. Developed to fulfil the special requirements of vehicle engine manufacturers, RAVENOL lubricants cover the numerous and varied specifications of the market thanks to their broad product portfolio. Our exclusively "100% Made in Germany" oils fulfil all of the requirements which lubricants must deliver for the latest vehicles. Manufactured according to internationally recognised quality standards in our modern production facility and equipped with our CleanSynto® technology, we ensure that our engine oils offer lubrication and functionality, thus extending the service lives of cars. The quality of our oils is also demonstrated through the numerous approvals we have been granted by car manufacturers.



RAVENOL RNF

SAE 0W-20 | ACEA C5

Synthetic, high performance low friction engine oil with CleanSynto® technology for petrol and diesel passenger car engines based on the latest additive technology with selected base oils. Particularly well-suited to Renault and Dacia engines.

RN17FE

Art. No.: 1111153



RAVENOL EHS

SAE 0W-20 | API SP(RC) | API SN Plus | ACEA A1/B1

Synthetic, low friction engine oil with CleanSynto® technology for petrol and diesel passenger car engines with and without turbocharger, e.g. Turbo GDI, and direct fuel injection.

ILSAC GF-6A, MB 229.71, Ford WSS-M2C947-A, Jaguar Land Rover STJLR.51.5122, GM dexos1™ (First Generation), GM 6094M, Chrysler MS-6395, Mitsubishi, Mazda, Suzuki, Honda/Acura HTO-06, Toyota, Subaru, Nissan, Lexus, Infiniti, Cadillac, Chevrolet, Buick.

Art. No.: 1111113



RAVENOL Super Synthetic Hydrocrack SSH

SAE 0W-30 | API SM | ACEA A3 / B4

Synthetic, low friction engine oil with CleanSynto® technology for petrol and diesel passenger car engines with and without turbocharger and direct fuel injection. Minimises friction, wear and fuel consumption and delivers excellent cold start performance. Extended oil change intervals when used in accordance with manufacturer instructions.

MB 229.3, VW 502 00 / 505 00, BMW Longlife-98, Renault RN0710

Art. No.: 1111138



RAVENOL WIV II

SAE 0W-30 | ACEA A5 / B5

Fully synthetic, high performance, low friction engine oil which saves fuel, benefiting from CleanSynto® technology for VW and Audi petrol and diesel engines with extended service intervals (Longlife II).

VW 503 00 / 506 00 / 506 01

Art. No.: 1111101



RAVENOL SHL

SAE 0W-40 | API SN / CF | ACEA A3 / B4

PAO (polyalphaolefin)-based, synthetic engine oil with CleanSynto® technology for passenger car petrol and diesel engines with and without turbocharger and direct injection.

BMW Longlife-01, Ford WSS-M2C937-A, MB 229.5, Renault RN0700/RN0710, Porsche A40, VW 502 00, VW 505 00

Art. No.: 1111127



RAVENOL VFE

SAE 5W-20 | API SP(RC), API SN Plus | ACEA A5/B5

Synthetic, low friction engine oil for petrol and diesel passenger car engines with and without turbocharger and direct fuel injection. Minimises friction, wear and fuel consumption.

ILSAC GF-6A, Chrysler MS-6395; Fiat 9.55535-CR1; Ford WSS-M2C930-A, Ford WSS-M2C930-B (extended drain capability), Ford WSS-M2C925-A/B, Ford WSS-M2C948-B; Honda/Acura HTO-06; Hyundai; Jaguar Land Rover STJLR.03.5004; Kia; Mazda; Mitsubishi; Nissan; Suzuki; Toyota

Art. No.: 1111311



RAVENOL GFE

SAE 5W-20 | API SP(RC),
API SN Plus

Synthetic, low friction engine oil with CleanSynto® technology for petrol and diesel passenger car engines with and without turbocharger and direct fuel injection.

ILSAC GF-5, GM dexos1™ Gen 2, Ford WSS-M2C945-B1, Chrysler MS-13340

Art. No.: 1111111



RAVENOL FO

SAE 5W-30 | SL/CF | ACEA A5/B5

Engine oil suitable for fuel saving, year-round use in modern petrol and diesel engines in passenger cars, combis, small transporters and similar vehicles manufactured by FORD, RENAULT, Toyota, Hyundai, KIA, Mazda, Honda, Nissan and Mitsubishi.

Fiat 9.55535-G1; FORD WSS-M2C913-D (overlaps 913-A/-B/-C); JAGUAR LAND ROVER STJLR.03.5003; MB 229.6; RENAULT RN0700

Art. No.: 1111115



RAVENOL SMO

SAE 5W-30 | API SN (RC)

Synthetic, low friction engine oil with CleanSynto® technology for petrol passenger car engines with and without turbocharger and direct fuel injection.

ILSAC GF-5, Ford WSS-M2C929-A, Ford WSS-M2C946-A, Chrysler MS-6395, GM 6094M, Fiat 9.55535-CR1, Nissan, Subaru, Toyota, Ford, Chrysler, Lexus, Mazda

Art. No.: 1111151



RAVENOL HCL

SAE 5W-30 | API SL / CF | ACEA A3 / B4

Synthetic, universal low friction engine oil with CleanSynto® technology for petrol and diesel passenger car and transporter engines with and without turbocharger.

MB 229.5, BMW Longlife-01, VW 502 00 / 505 00 / 501 01

Art. No.: 1111118



RAVENOL HPS

SAE 5W-30 | API SL / CF | ACEA A3 / B4

Semi synthetic, high performance, low friction engine oil with CleanSynto® technology with PAO component for passenger car carburetors and diesel engines with and without turbocharger and direct fuel injection.

MB 229.3, BMW Longlife-98, VW 502 00 / 505 00

Art. No.: 1111117



RAVENOL HLS

SAE 5W-30 | API SN/CF | ACEA C3

Synthetic, low friction engine oil with CleanSynto® technology for petrol and diesel passenger car engines (including with DPF and TWC). Extended oil change intervals.

MB 229.51, MB 229.52, MB 229.31, BMW Longlife-04, VW 502 00 / 505 00 / 505 01, GM dexos2™, Opel OV0401547 (only Diesel), Fiat 9.55535-S3, Chrysler MS-11106

Art. No.: 1111119



RAVENOL FLJ

SAE 5W-30 | ACEA C1

Synthetic, low SAPS low friction engine oil with CleanSynto® technology for petrol and diesel passenger car engines with and without turbocharger and direct fuel injection. Minimises friction, wear and fuel consumption and delivers excellent cold start performance.

JAGUAR LAND ROVER STJLR.03.5005, FORD WSS-M2C934-A/-B, MAZDA, Mitsubishi

Art. No.: 1111143



RAVENOL FEL

SAE 5W-30 | API SN / CF | ACEA C2

Synthetic, low friction engine oil with CleanSynto® technology for petrol and diesel passenger car engines (including with DPF and TWC). Extended oil change intervals. Fulfills EURO IV and EURO V norm for exhaust gas reductions. HTHS >2.9 mPa*s(cP).

Chrysler MS-13340, JASO DL-1 (D049RAV111), PSA B71 2290, FIAT 9.55535-S1, HONDA i-DTEC / i-CTDi, MAZDA MZR-CD / MZ-CD / CiTD, Mazda 183419 / 183418, TOYOTA 08880-83389 / 08880-83388, IVECO 18-1811 CLASSE SC1, SUBARU Boxer Diesel, SUZUKI

Art. No.: 1111123



**RAVENOL HDS
Hydrocrack Diesel
Specific**

SAE 5W-30 | ACEA C4

Synthetic, low SAPS low friction engine oil with CleanSynto® technology for petrol and diesel passenger car engines with and without turbocharger and direct fuel injection. Developed to save fuel in EURO IV and EURO V engines with normal and extended oil change intervals.

Renault RN0720, MB 226.51

Art. No.: 1111121



RAVENOL STS

SAE 5W-30 | API SL/CF | ACEA A3/B4

Synthetic, high performance low friction engine oil with CleanSynto® technology with PAO component for petrol and diesel passenger car engines with and without turbocharger and direct fuel injection.

Art. No.: 1111312



RAVENOL HDX

SAE 5W-30 | API SN(RC)

Synthetic, low friction engine oil with CleanSynto® technology for petrol passenger car engines with and without turbocharger e.g. Turbo GDI, and direct fuel injection.

LSAC GF-5, GM dexos1™ Gen 2, Chrysler MS-6395, MS-13340, Fiat 9.55535-CR1, Ford WSS-M2C946-A/-B1, Ford WSS-M2C929-A, Honda/Acura HTO-06

Art. No.: 1111125



RAVENOL SMP

SAE 5W-30 | API SN | ACEA C3

Mid SAPS low friction engine oil with CleanSynto® technology for petrol and diesel passenger car engines with and without turbocharger and direct fuel injection. Minimises friction, wear and fuel consumption and delivers excellent cold start performance. Extended oil change intervals Fulfills EURO IV and EURO V norm for exhaust gas reductions.

BMW Longlife-04, MB 229.51, MB 229.31, VW 504 00 / 507 00 (for Europe and North America), Porsche C30, Fiat 9.55535-S1, Audi/Volkswagen G 052 195 M2, G 052 195 M4, G 052 195 M6, BMW 83 21 0 398 507, BMW/Mini 83 21 0 398 508, Mercedes Benz 000 989 89 01 10, Chrysler MS-11106

Art. No.: 1111126



RAVENOL VMS

SAE 5W-30 | API SN | ACEA C3

Fully synthetic, low friction engine oil with CleanSynto® technology for Daimler petrol and diesel passenger car engines with and without turbocharger and direct fuel injection.

MB 229.51, MB 229.52, MB 229.31, Chrysler MS-11106

Art. No.: 1111144



RAVENOL RNV

SAE 5W-30 | ACEA C3

Synthetic fuel saving, "mid SAPS" engine oil based on the latest additive technology with special base oils. It was specially developed for Renault and Dacia petrol and diesel engines.

Renault RN 17

Art. No.: 1111114



RAVENOL VDL

SAE 5W-40 | API CF | ACEA B3 / B4

Synthetic, low friction engine oil with CleanSynto® technology for diesel passenger car engines with and without turbocharger and direct fuel injection.

MB 229.3, BMW Longlife-98, VW 505 00, Opel GM-LL-B-025, TOYOTA Common Rail, MITSUBISHI, NISSAN, Fiat 9.55535-M2

Art. No.: 1111132



RAVENOL TSJ

SAE 10W-30 | API SN(RC) /CF

Semi synthetic multigrade oil with CleanSynto® technology for year-round use in petrol and diesel engines under all operating conditions. Japanese and Asian vehicles.

ILSAC GF-5, Resource Conserving, Toyota, Nissan, Honda, Mitsubishi, Mazda, Suzuki, Isuzu, Subaru, Daihatsu, KIA, Hyundai, SsangYong, Daewoo, Fiat 9.55535-CR1, Chrysler MS-6395

Art. No.: 1112106



RAVENOL TSI

SAE 10W-40 | API SN, SM / CF | ACEA A3 / B4

Semi synthetic, high performance, low friction engine oil with CleanSynto® technology for passenger car carburettors and diesel engines with and without turbocharger and direct fuel injection.

MB 229.1, BMW Special Oil, VW 501 00 / 505 00, VW 502 00 / 500 00, MB 229.3

Art. No.: 1112110



RAVENOL DLO

SAE 10W-40 | API CF | ACEA A3 / B4

Semi synthetic, high performance, low friction engine oil with CleanSynto® technology for passenger car carburettors and diesel engines with and without turbocharger and direct fuel injection.

MB 229.1, BMW Special Oil, VW 500 00 / 501 01 / 505 00

Art. No.: 1112111



RAVENOL VMO

SAE 5W-40 | API SN/CF | ACEA C3

Synthetic, mid SAPS low friction engine oil with CleanSynto® technology for petrol and diesel passenger car engines (including pump-nozzle technology, DPF and TWC). Extended oil change intervals. Fulfils EURO IV and EURO V norm for exhaust gas reductions. Multi oil.

MB 229.31, VW 502 00 / 505 00 / 505 01, BMW Longlife-04, GM dexos2™, Porsche A40, Ford WSS-M2C 917-A, Fiat 9.55535-S2, Fiat 9.55535-GH2

Art. No.: 1111133



RAVENOL HST

SAE 5W-40 | API SN / CF | ACEA A3 / B4

Engine oil with CleanSynto® technology for petrol and diesel passenger car engines with and without turbocharger and direct fuel injection based on synthetic base oils. Minimises friction, wear and fuel consumption and delivers excellent cold start performance. Extended oil change intervals when used in accordance with manufacturer instructions.

BMW Longlife-01, RENAULT RN0700, RN0710, MB 229.3, MB 229.5, Porsche A40, VW 502 00 / 505 00, Opel GM-LL-B-025, Fiat 9.55535-Z2, Chrysler MS-12991 (ersetzt MS-10896), MS-10850, MS-10725 (Fiat 9.55535-GH2 and Fiat 9.55535-Z2), PSA B71 2296

Art. No.: 1111147



RAVENOL HCS

SAE 5W-40 | API SN/CF | ACEA A3/B4

Synthetic, hydrocrack, high performance, low friction engine oil with CleanSynto® technology for passenger car carburettors and diesel engines with and without turbocharger and direct fuel injection.

MB 229.3, MB 226.5, VW 502 00 / 505 00, BMW Longlife-01, Renault RN0700 / RN0710, Opel GM-LL-B-025, Porsche A40, Chrysler MS-10850, MS-10896, PSA B71 2296

Art. No.: 1112105



RAVENOL LLO

SAE 10W-40 | API SN | ACEA A3 / B4

Semi synthetic, high performance, low friction engine oil with CleanSynto® technology for passenger car carburettors and diesel engines with and without turbocharger and direct fuel injection.

MB 229.1, BMW Special Oil, VW 500 00 / 501 01 / 505 00

Art. No.: 1112112

Engine oils/ Special engine oils

Our passenger car engine oil classics. Solid mineral single and multigrade engine oils which are suitable for many vehicles with petrol and diesel engines and a wide variety of areas of application.



RAVENOL Formel Extra SAE 20W-50 | API SF / CD | ACEA A2 / B2

Mineral multigrade engine oil for petrol and diesel passenger car engines with and without turbocharger and commercial vehicle engines.

MB 227.1, MIL-L-46152 B, MIL-L-2104 D, CCMC G4

Art. No.: 1113120



RAVENOL Formula Standard SAE 10W-30 | API SF / CD | ACEA A2 / B2

Mineral multigrade engine oil for petrol and diesel passenger car engines with and without turbocharger and commercial vehicle engines.

CCMC G4; MB 227.1; MIL-L-46152 B, MIL-L-2104 D

Art. No.: 1113110



RAVENOL Turbo-C HD-C SAE 15W-40 | API CF-4 / CF / SL | ACEA A3 / B4, E2

High-quality, mineral multigrade engine oil for petrol and diesel passenger car engines with and without turbocharger. Also suitable for petrol engines. Oil change intervals up to 45,000 km.

MB-229.1, MAN 271, MAN 3275-1, ZF TE-ML 07C, VW 501 01 / 505 00, Allison C4, Caterpillar TO-2, Volvo VDS, MACK EO-L, MTU Type 2

Art. No.: 1113103



RAVENOL Formula Super SAE 15W-40 | API SF / CD | ACEA A2 / B2

Mineral multigrade engine oil for petrol and diesel passenger car engines with and without turbocharger and commercial vehicle engines.

MB 227.1, MIL-L-46152 B, MIL-L-2104 D, CCMC G4

Art. No.: 1113115



RAVENOL Super Turbo SAE 20W-50 | API SL / CF | ACEA A3 / B4, E2

Mineral multigrade engine oil for passenger car carburetors with and without turbocharger.

Cummins CES 20071, Deutz DQC II-10, Mack EO-M, MAN 271, MB 228.1, MB 229.1, MTU Type 1, Volvo VDS, VW 501 01/505 00

Art. No.: 1113126



RAVENOL Super HD SAE 30 | API SF / CD

Mineral single grade engine oil for passenger car carburetors and diesel engines with and without turbocharger. Can also be used in diesel engines without exhaust gas turbocharger in passenger cars and small transporters with low loads and stationary equipment.

MIL-L-46152 B, MIL-L-2104 D, MB 227.0, CCMC G4

Art. No.: 1113300



RAVENOL Super HD SAE 50 | API SF / CD

Mineral single grade engine oil for passenger car carburetors and diesel engines with and without turbocharger. Can also be used in diesel engines without exhaust gas turbocharger in passenger cars and small transporters with low loads and stationary equipment.

CCMC G2/D1, MIL-L-46152 B/C, Ford ESE-M2C 153C, Ford SMM-2C 9011A, GM 6085M

Art. No.: 1113305

High Mileage

Thanks to the unique formulations which have been specially developed and optimised for high mileage vehicles, RAVENOL high mileage engine oils fulfil all the requirements of high mileage petrol and diesel vehicles for a high-quality lubricant.



RAVENOL SVT Standard Viscosity Turbo Oil

SAE 10W-40 | API SM / CF | ACEA A3 / B4

Semi synthetic, low friction engine oil for vehicles with passenger car carburetors and diesel engines with and without turbocharger and direct fuel injection and as well as high mileage.

MB 229.1, VW 505 00/501 00, VW 502 00/500 00, BMW Special Oil

Art. No.: 1116103



RAVENOL HVE High Viscosity Ester Oil

SAE 10W-50 | API SN / CF | ACEA A3 / B4

Fully synthetic, high performance, low friction engine oil for petrol and diesel passenger car engines with and without turbocharger and direct fuel injection and as well as high mileage. Minimises friction, wear and fuel consumption.

MB 229.1

Art. No.: 1115101



RAVENOL SVE Standard Viscosity Ester Oil

SAE 5W-30 | API SL / CF | ACEA A3 / B4

Semi synthetic, low friction engine oil for vehicles with petrol and diesel engines with and without turbocharger in passenger cars and as well as high mileage.

MB 229.5, BMW Longlife-01, VW 502 00 / 505 00 / 501 01

Art. No.: 1116101



RAVENOL SVS Standard Viscosity Synto Oil

SAE 5W-40 | API SN / CF | ACEA A3 / B4

Synthetic, low friction engine oil for petrol and diesel passenger car engines with and without turbocharger and direct fuel injection and as well as high mileage.

MB 229.5, Porsche A40, VW 502 00 / 505 00, BMW Longlife-01, Opel GM-LL-B-025, Renault RN0700 / RN0710

Art. No.: 1115100



RAVENOL HVT High Viscosity Turbo Oil

SAE 5W-50 | API SN / CF | ACEA A3 / B4

Synthetic, high performance, low friction engine oil for petrol and diesel passenger car engines with and without turbocharger and direct fuel injection and as well as high mileage. Minimises friction, wear and fuel consumption.

MB 229.1

Art. No.: 1116102



RAVENOL HVS High Viscosity Synto Oil

SAE 10W-60 | API SN / CF | ACEA A3 / B4

Fully synthetic, high performance, low friction engine oil for petrol and diesel passenger car engines with and without turbocharger and direct fuel injection and as well as high mileage. Minimises friction, wear and fuel consumption.

MB 229.1

Art. No.: 1115102



RAVENOL SVP Standard Viscosity Performance Oil

SAE 15W-40 | API SL / CF | ACEA A3 / B4

Mineral multigrade engine oil for vehicles with petrol and diesel engines with and without turbocharger as well as high mileage.

MB 229.1, MAN 271, ZF TE-ML 07C, VW 505 00

Art. No.: 1117100



RAVENOL HVP High Viscosity Performance Oil

SAE 15W-50 | API SN / CF | ACEA A3 / B4

Semi synthetic, low friction engine oil for petrol and diesel passenger car engines with and without turbocharger and direct fuel injection and as well as high mileage. Minimises friction, wear and fuel consumption.

MB 229.1

Art. No.: 1116104

Oldtimer Classic vintage car engine oils

Vintage cars and more recent classics enjoy a constantly growing fan base. Some of these vehicles have history. Engines often have quite different requirements of lubricants than their modern relatives. RAVENOL has specifically developed Oldtimer Classic engine oils for this purpose. In order to guarantee the best possible engine protection, the formulations for the Classic oils have been adapted and structured according to the construction years. The Oldtimer Classic 1 single grade engine oils offer different viscosities for vehicles with a construction year prior to 1930 (Oldtimer Regular) and vehicles from 1930 to 1951 (Oldtimer Classic). In addition, RAVENOL offers various multigrade engine oils with vehicles from the construction years 1951 to 1979 with its Oldtimer Classic 2 series.



RAVENOL Oldtimer Classic

SAE 30 | API SB | Classic 1

Alloyed single grade oil for use in classic vehicles. It is manufactured using carefully selected pure mineral raffinates and additives.

Engines from vehicles up to the construction year of 1951

Art. No.: 1118113



RAVENOL Oldtimer Classic

SAE 40 | API SB | Classic 1

Alloyed single grade oil for use in classic vehicles. It is manufactured using carefully selected pure mineral raffinates and additives.

Engines from vehicles up to the construction year of 1951

Art. No.: 1118114



RAVENOL Oldtimer Regular

SAE 30 | API SA | Classic 1

Single grade oil for use in classic vehicles with no oil filter. It is manufactured using carefully selected pure mineral raffinates.

Engines from vehicles up to the construction year of 1930

Art. No.: 1118103



RAVENOL Oldtimer Regular

SAE 40 | API SA | Classic 1

Single grade oil for use in classic vehicles with no oil filter. It is manufactured using carefully selected pure mineral raffinates.

Engines from vehicles up to the construction year of 1930

Art. No.: 1118104



RAVENOL Oldtimer Regular

SAE 50 | API SA | Classic 1

Single grade oil for use in classic vehicles with no oil filter. It is manufactured using carefully selected pure mineral raffinates.

Engines from vehicles up to the construction year of 1930

Art. No.: 1118105



RAVENOL Oldtimer Classic

SAE 50 | API SB | Classic 1

Alloyed single grade oil for use in classic vehicles. It is manufactured using carefully selected pure mineral raffinates and additives.

Engines from vehicles up to the construction year of 1951

Art. No.: 1118115



RAVENOL Oldtimer 50s

SAE 20W-50 | API SC | Classic 2

Alloyed single grade oil for use in classic vehicles. It is manufactured using carefully selected pure mineral raffinates and additives.

Engines from vehicles up to the construction year of 1967

Art. No.: 1119106



RAVENOL Oldtimer 70s

SAE 20W-50 | API SE | Classic 2

Alloyed multigrade engine oil for use in classic vehicles built up to 1979. It is manufactured using carefully selected pure mineral raffinates and additives.

Engines from vehicles up to the construction year of 1979

Art. No.: 1119116

Natural gas engine oils

Modern gas engines operate at high power concentrations as well as high efficiencies. To ensure functionally safe and reliable operation of gas engine systems, only extremely high performance oils can be used. In addition, the fuel gases used today require the gas engine oils to have special qualities. Only this way it is possible to achieve reliable engine operation with the maintenance outlay requirement as low as possible, such as sensible, cost-effective use.

RAVENOL has developed corresponding quality gas engine oils for these special cases and offers a full range of high-quality lubricants tailored to the special requirements of modern gas engines.

All products are distinctive thanks to their future-oriented performance and are subject to constant ongoing development.



RAVENOL VEG

SAE 5W-40 | API SM/SL/CF | ACEA A3/B4

High-alloyed, fully synthetic engine oil for use in natural gas engines.

Natural gas engines

Art. No.: 1131100



RAVENOL TEG Gasmotorenöl

SAE 10W-40 | API SL / CF | ACEA A3 / B3

Semi synthetic, high-alloyed engine oil for use in natural gas engines.

Natural gas engines

Art. No.: 1132100



RAVENOL MGS Gasmotorenöl

SAE 15W-40 | API CF-4 / CF / SL | ACEA A3 / B4, E2

High-quality multigrade engine oil for use in natural gas engines.

MB 226.9, TEDOM Group 1P (61-0-0281.2)

Art. No.: 1133100



RAVENOL Gasmotorenöl

SAE 40

Lubrication of four-stroke gas engines with gases with a low sulphur content.

Use with natural gas, biogas and sewage gas

Art. No.: 1133105

Special engine oils

RAVENOL special engine oils are the first choice for engine overhauls and the associated breaking-in phase. They clean and protect the engine from the outset.



RAVENOL Break-In Oil

SAE 30

Mineral break-in oil for the initial filling and breaking-in of repaired or overhauled engines.

Art. No.: 1114105



RAVENOL Break-In Oil

20W-50

Mineral break-in oil for the initial filling and running-in of repaired or overhauled engines with special high pressure additives which are able to withstand very high pressure.

Art. No.: 1114110



Rallye/Racing oils – USVO®

As a successful partner in more than 100 international racing series on land and water, RAVENOL products enjoy an outstanding reputation in the world of motorsport. Transmission and engine manufacturers from the field of motorsport engineering trust our expertise and other highly developed technologies such as USVO® or CleanSynto®, which make our lubricants so high-performance and reliable. Various touring and racing series are supplied with RAVENOL racing products. In 2021, we will continue with our successful partnerships in the elite class of motor racing – the FIA Formula 1 World Championship – with a cooperation with the Aston Martin Cognizant Formula One™ team. After a period of abstinence of 60 years, RAVENOL is supporting Aston Martin's return to Formula 1 as “Global Lubricants Partner”. The passion and technical expertise which is gleaned from and through motorsport significantly contributes to the outstanding quality of our 100% Made in Germany RAVENOL products.



RAVENOL RSP Racing Super Performance

SAE 5W-30 | ACEA A3 / B4

Modern, fully synthetic, fuel saving, low friction multigrade engine oil based on polyalphaolefins with USVO® technology. It is extremely well-suited to modern petrol engines for car racing, even when subject to the highest levels of strain.

VW 502 00 / 505 00, MB 229.5, BMW Longlife-01, Renault RN 0700 / RN0710, Racing track partnerships: Nürburgring Tested, Hockenheim Premium Partner, recommended by Ralf Schumacher

Art. No.: 1141089



RAVENOL REP Racing Extra Performance

SAE 5W-30 | API SN | ACEA C3

Modern, fully synthetic, fuel saving low friction multigrade engine oil with a low sulphate ash content and reduced HTHS viscosity. Special oil for car racing and day-to-day use under the highest levels of strain, with USVO® technology.

MB 229.51, MB 229.52, MB 226.5, BMW Longlife-04, Renault RN 0700 / RN 0710, GM dexos2™, Opel OV0401547 (only Diesel), racing track partnerships: Nürburgring Tested, Hockenheim Premium Partner, recommended by Ralf Schumacher

Art. No.: 1141088



RAVENOL RUP Racing Ultra Performance

SAE 5W-40 | API SN | ACEA C3

Modern, fully synthetic, fuel saving low friction multigrade engine oil with a low sulphate ash content for extremely sporty driving styles and for car racing with USVO® technology.

MB 229.51, MB 226.5, BMW Longlife-04, VW 511 00, Porsche C40, Renault RN 0700 / RN 0710, GM Dexos2™, Porsche A40, Ford WSS-M2C917A, racing track partnerships: Nürburgring Tested, Hockenheim Premium Partner, recommended by Ralf Schumacher

Art. No.: 1141091



RAVENOL RCS Racing Competition Synto

SAE 5W-40

Fully synthetic, low friction multigrade engine oil for modern petrol engines with USVO® technology. Special oil for car racing and day-to-day use under the highest strain.

Racing track partnerships: Nürburgring Tested, Hockenheim Premium Partner, recommended by Ralf Schumacher

Art. No.: 1141090



RAVENOL RRS Racing Rally Synto

SAE 5W-50

Fully synthetic, universal, low friction multigrade engine oil for modern petrol engines with USVO® technology, based on ester and polyalphaolefin technology. Special oil for car racing and motorsport, even under the highest strain.

Racing track partnerships: Nürburgring Tested, Hockenheim Premium Partner, recommended by Ralf Schumacher

Art. No.: 1142100



RAVENOL RFS Racing Formel Sport

SAE 15W-50

Fully synthetic, multigrade engine oil for modern petrol engines with USVO® technology. Special oil for car racing, even under the highest strain.

Fully synthetic, multigrade engine oil for modern petrol engines with USVO® technology. Special oil for car racing, even under the highest strain.

Art. No.: 1142105



RAVENOL Racing Gear oil

API GL-5+LS

Fully synthetic racing high performance gear oil with USVO® technology on a PAO basis with low friction characteristics, particularly for use in multi-plate limited slip differentials in racing cars.

Drexler multi-plate limited slip differentials in BMW Alpina B5, B6, GT3, GT4, M3, Z4 and World Touring Car Championship (WTCC), Chrysler Viper GT3, Corvette Z06, Fiat Abarth, Lamborghini Murcielago, Mercedes AMG C 63, CLS 63, E 63, SL 63, SLS

Art. No.: 1221111



RAVENOL RHP Racing High Performance Gear

SAE 75W-90

Fully synthetic, high performance racing gear oil with USVO® technology for use in axle drives which are subject to heavy strain. Special additives guarantee high pressure absorption capacity, stable viscosity, optimum wear protection, low foaming and perfect lubrication.

Racing track partnerships: Nürburgring Tested, Hockenheim Premium Partner, recommended by Ralf Schumacher

Art. No.: 1145100



RAVENOL RSE Racing Sport Ester

SAE 10W-50

Fully synthetic, low friction multigrade engine oil for modern petrol engines with USVO® technology, based on ester and polyalphaolefin technology. Special oil for car racing, even under the highest strain.

Racing track partnerships: Nürburgring Tested, Hockenheim Premium Partner, recommended by Ralf Schumacher

Art. No.: 1141105



RAVENOL RSS Racing Sport Synto

SAE 10W-60

High-alloyed, fully synthetic, highly modern low friction multigrade engine oil based on polyesters and PAO for modern petrol engines. Use as a special oil for car racing, even under the highest strain. Uses the latest USVO® technology to reduce friction and to ensure maximum performance.

Areas of application: Opel Motorsport, ADAC GT masters, FIA F3 EUROPEAN Championship, racing track partnerships: Nürburgring Tested, Hockenheim Premium Partner, recommended by Ralf Schumacher

Art. No.: 1141100



RAVENOL RHV Racing High Viscosity

SAE 20W-60

Fully synthetic, low friction multigrade engine oil with USVO® technology based on polyesters and PAO for modern petrol engines. Special oil for car racing, even under the highest strain. Uses the latest technology to reduce friction and to ensure maximum performance.

Racing track partnerships: Nürburgring Tested, Hockenheim Premium Partner, recommended by Ralf Schumacher

Art. No.: 1141101



RAVENOL Racing Kart 2T

Fully synthetic, uncompromising 2-stroke racing oil. Tested globally under the most difficult conditions on Grand Prix tracks in karting, road racing and motocross racing.

FIA-CIK Homologation

Art. No.: 1144100



RAVENOL Racing Castor 2T

Special 2-stroke oil based on tried-and-tested castor oil technology, refined with ester synthetic additives. Use in modern air-cooled 100 ccm kart engines for revolutions of up to 20,000 U/min.

FIA-CIK Homologation

Art. No.: 1144101



RAVENOL Racing Brake Fluid R 325+

High-performance brake fluid with very high thermal load capacity at the very highest DOT 4 level. Very high boiling and wet boiling point. Ideal brake fluid for racing (car and motorcycle).

FMVSS No. 116 DOT 4, DOT 5.1, SAE J1703, SAE J1704

Art. No.: 1350604

Commercial Vehicle engine oils

RAVENOL Commercial Vehicle engine oils offer the right lubricant for any requirement. Special additives and blends with special base oils guarantee use both at low temperatures and under particularly heavy strain. The quality of our Commercial Vehicle engine products is highlighted and regularly confirmed through the extensive approvals from Commercial Vehicle engine oils manufacturers.



RAVENOL FET Fuel Efficiency Truck

SAE 5W-30 | API SN/ FA-4

Synthetic, fuel economy, longlife multigrade engine oil with an HTHS viscosity of between 2.9 cP and 3.2 cP which has been specially developed for the latest generation of turbodiesel commercial vehicle engines.

MB 228.61, Cummins CES 20087; DDC 93K223

Art. No.: 1121105



RAVENOL Super Performance Truck

SAE 5W-30 | API CF/CI-4 | ACEA E4, E7

USHPD low friction engine oil for commercial vehicles. Oil change intervals up to and in excess of 100,000 km. Suitable for year-round use n EURO I, II, III, IV and EURO V engines.

MB 228.5, MB 235.28, MTU Type 3, MAN M3277, Volvo VDS-3, Cummins CES 20076, -77, -78, Renault RXD, IVECO, MACK EO-M Plus, Voith Retarder B, Global DHD-1, JASO DH-1, SCANIA LDF-3

Art. No.: 1122102



RAVENOL Super Synthetic Truck

SAE 5W-30 | API CI-4 | ACEA E7, E6, E4

Fully synthetic "Low SAPS" year-round HGV engine oil. For use in EURO 4 and EURO 5 engines with low sulphur diesel fuel. Suitable for use in engines with and without particle filter and exhaust gas catalytic converters.

MB 228.51, MAN 3477, MTU Type 3.1, Volvo VDS-3, Renault RLD-2, RXD, MAN M3277, MB 226.9, JASO DH-2, Scania LDF, DAF HP-2, Deutz DQC-III-10LA, Cummins CES 20076 / 20077, Mack EO-N

Art. No.: 1121101



RAVENOL Ultra Synthetic Truck

SAE 5W-30 | API CJ-4 | ACEA E4, E6, E9

Synthetic, fuel saving, "low SAPS" HGV engine oil based on the latest additive technology with very special base oils. Suitable for use in diesel engines under the most strenuous conditions and in all seasons.

MAN M 3477, MAN M 3575, MAN M 3677, MAN M 3271-1, MB 228.51, MB 228.31, Volvo VDS-4, Scania LowAsh, MTU Typ 3.1, MTU Typ 2.1, Renault VI RLD-3, Deutz DQC IV-10 LA, Mack EO-O Premium Plus, Caterpillar ECF-3, Cummins CES20081, Detroit Diesel 93K218, Scania LDF-4, MAN 3691, MAN 3297-1, JASO DH-2, Volvo CNG, DAF, Voith Retarder B

Art. No.: 1121102



RAVENOL NDT Nord Duty Truck

SAE 5W-40 | API CJ-4/SM | ACEA E9, E7

Year-round multigrade engine oil for commercial vehicle diesel engines which are subject to heavy strain with optimised exhaust gas aftertreatment. Extended oil change intervals.

MB 228.31, Volvo VDS-4, Renault RLD-3, Mack EO-O Premium plus, MTU Type 2, Cummins CES 20081, Detroit Diesel DD93K218, DD93K215, DD93K214, Chrysler MS-10902, Ford WSS-M2C171-E

Art. No.: 1122103



RAVENOL UDT Ultra Duty Truck

SAE 10W-30 | API CK-4, CJ-4 | ACEA E6, E7, E9

Synthetic, fuel saving, "low SAPS" HGV engine oil based on the latest additive technology with very special base oils. It has been specially developed for diesel engines subjected to the toughest conditions in all seasons.

Volvo VDS-4.5, Renault VI RLD-4, Mack EOS-4.5, MB 228.51, MTU Type 3.1, Cummins CES 20081, Deutz DQC IV-10 LA, Detroit Diesel 93K218, Caterpillar ECF-3

Art. No.: 1121110



RAVENOL SDT Super Duty Truck

SAE 10W-40 | API CK-4, CJ-4 | ACEA E6, E7, E9

Synthetic, fuel saving, "low SAPS" HGV engine oil based on the latest additive technology with very special base oils. Suitable for use in diesel engines under the most strenuous conditions and in all seasons.

MB 228.51, Volvo VDS-4.5, Renault VI RLD-4, Mack EOS-4.5, Cummins CES 20086; Caterpillar ECF-3; Detroit Diesel DDC 93K222; Deutz DQC IV-10 LA; JASO DH-2; MAN M 3477; MTU Type 3.1; Scania Low Ash

Art. No.: 1121120



RAVENOL Expert SHPD

SAE 5W-30 | API CI-4, SL | ACEA E7, E5, E3, A3/B4

High-alloyed, SHPD low friction engine oil for commercial vehicles using synthetic base oils.

Caterpillar ECF-2, ECF-1a; Cummins CES 200071, -72, -76, -78; DDC 93K215; DEUTZ DQC III-10; Global DHD-1; MACK EO-N, MACK EO-M Plus; MAN M 3275-1; MB 228.1, MB 228.3, MB 228.5, MB 229.1, MB 235.28; MTU Type 2; Renault VI RLD-2; Volvo VDS 3

Art. No.: 1121104



RAVENOL Expert SHPD

SAE 10W-40 | API CI-4 | ACEA E4, E7, A3/B4

Universal low friction engine oil for suction and turbo diesel engines which are subject to heavy strain. The longest oil change intervals.

MB 228.3, MB 229.1, Cummins CES 20077, -78, DEUTZ DQC III-10, MAN M 3275-1, MACK EOM-Plus, MACK EO-N, MTU Type 2, Renault VI RLD-2, TEDOM 258-3 (61-0-0258), Volvo VDS 3, YaMZ, Cummins CES 20071, -72, -76, SCANIA LDF, Global DHD-1, VW 500 00, 505 00, Caterpillar TO-2, Allison C4, Voith Retarder B, IVECO, DAF

Art. No.: 1122105



RAVENOL Low Emission Truck

SAE 10W-30 | API CI-4, CJ-4, CK-4 | ACEA E6,E7,E9

Year-round multigrade SHPD engine oil (Super High Performance Diesel) which is specifically tailored to the Euro 5 and Euro 6 exhaust gas norms and is used in extremely strenuous commercial vehicle diesel engines.

JASO DH-2, MB 228.51, MAN M3677, Volvo VDS-4 (STD 417-0001), Renault Trucks RLD-3, MTU type 3.1, Deutz DQC IV-10 LA, Cummins CES 20081, Mack EO-O PP (Premium Plus), Detroit Diesel DDC 93K218, Caterpillar ECF-3

Art. No.: 1122111



RAVENOL Low Emission Truck

SAE 10W-40 | API CJ-4, CI-4 | ACEA E4, E6, E7, E9

Year-round multigrade SHPD engine oil (Super High Performance Diesel) which is specifically tailored to the Euro 5 and Euro 6 exhaust gas norms and is used in extremely strenuous commercial vehicle diesel engines.

MB 228.31, MB 228.51, JASO DH-2, MAN M 3575, M 3477, M 3271-1, Caterpillar ECF-3; Cummins CES 20081; DAF; Detroit Diesel DDC 93K218; Deutz DQC IV-10 LA; JASO DH-2; Mack EO-O Premium Plus; MB 235.28; MTU type 2.1, MTU type 3.1; Renault VI RLD-3; Scania Low Ash; VOITH Class B; Volvo VDS-4

Art. No.: 1122109



RAVENOL Low Emission Truck

SAE 15W-40 | API CJ-4/SM | ACEA E7, E9

Very high-quality mineral HGV engine oil for the most strenuous conditions. For EURO 5 engines with exhaust gas systems (EGR, SCR, DPF, DPD, DPR), EURO 3 and EURO 4 engines. Improves performance, reliability and cleanliness of engines.

MB 228.31, Volvo VDS-4, Mack EO-O Premium Plus, Renault VI RLD 3, DFS 93K214, DFS 93K218, Cummins CES 20081, Ford WSS-M2C171-E, TATRA TDS 30/12, MAN M3575, MAN M 3477, MAN M 3271-1, MTU type 2.1, Caterpillar ECF-2/-3, JASO DH-2, Japan Ultra-Low PM Emission Diesel, EURO IV and EURO-V, U.S. EPA Tier 3 emissions regulation, Chrysler MS-10902, John Deere JDQ-78X Oxidations Test.

Art. No.: 1123100



RAVENOL Performance Truck

SAE 10W-40 | API CF/CI-4 | ACEA E4, E7, A3/B4

Semi synthetic multigrade low friction diesel engine oil, UHPD high performance engine oil. Suitable for the longest oil change intervals.

MB 228.5, MAN M 3277, MTU Type 3, Volvo VDS-3, Renault RVI RXD/RLD-2, TEDOM 258-4 (61-0-0258), DAF HP1/2, DEUTZ DQC III-10, SCANIA LDF 2, MACK EO-N, Cummins CES 20076, -77, -78, JASO DH-1 (JASO M355:2000), Voith Retarder B, Global DHD-1, SCANIA LDF-3

Art. No.: 1122106



RAVENOL EURO IV Truck

SAE 10W-40 | ACEA E6, E7

Universal low friction engine oil based on synthetic PAO and HC base oils, for suction, turbo diesel and petrol engines subject to heavy strain. Suitable for year-round use in EURO I, II, III, IV and EURO V engines.

MB 228.51, MAN M 3477, MTU Typ 3, MTU Typ 3.1, Renault RXD, Volvo VDS-3, Mack EO-N, Renault VI RLD-2, Scania LDF, Deutz DQC IV-10 LA, DAF HP-2, MAN M3277 (CRF, exhaust gas recirculation systems)

Art. No.: 1122107



RAVENOL EURO VI Truck

SAE 10W-40 | API CJ-4 / SN | ACEA E9

Synthetic fuel saving, "low SAPS" HGV engine oil based on the latest additive technology with very special base oils.

Deutz DQC III-10 LA, MB 228.51, Cummins CES 20076/77, MAN M3477, M3271-1, MTU Type 3.1 (all MTU engines and DDC engines series 2000/4000, with the exception of series 8000, 956 TB31/32/33/34, 1163 TB32 Genset and S 60.), MTU type 3, VOLVO VDS-3, Renault RLD-2, RXD, MACK EO-N, Scania LDF-2, Chrysler MS-10902, Ford WSS-M2C171-E

Art. No.: 1122108



RAVENOL EDT

SAE 10W-30 | API FA-4

Synthetic Fuel Economy Longlife multigrade engine oil with an HTHS viscosity of between 2.9 cP and 3.2 cP which has been specially developed for the latest generation of turbodiesel commercial vehicle engines.

Cummins CES 20078, Mack EO-O PP (Premium Plus)

Art. No.: 1122112



RAVENOL Turbo-Plus SHPD

SAE 10W-30 | API CI-4/SL | ACEA E7, E5, E3, A3/B4

Mineral SHPD engine oils for mixed fleets for diesel and petrol engines, also with turbocharger. Specially for extended oil change intervals.

YAMZ; Caterpillar ECF-2, TO-2; Cummins CES 20071, -72, -76, -77, -78; DAF; DDC 93K215; Deutz DQC III-10; Global DHD-1; JASO DH-1; Mack EO-N; MAN M 3275-1; MB 228.3; MTU Type 2, MTU Type 3; Renault RLD, Renault VI RLD-2; Volvo VDS 3.

Art. No.: 1123105



RAVENOL Turbo-Plus SHPD

SAE 15W-40 | API CI-4/CH-4/SL | ACEA E7, A3/B4

Mineral SHPD engine oils for mixed fleets for diesel and petrol engines, also with turbocharger. Specially for extended oil change intervals.

MB 228.3, MB 229.1, MAN M3275-1 (Multigrades), Volvo VDS-3, MTU Typ 2, STEYR Motor GAZ 560, YaMZ, Cummins CES 20071, -72, -76, -77, -78, Renault RLD/RLD-2, ZF TE-ML 07C, TEDOM 258-3 (61-0-0258), JASO DH-1 (D049RAV123), Deutz DQC III-10, Global DHD-1, Mack EO-M, EO-M Plus, IVECO, Allison C4, Caterpillar TO-2, KHD (Klößner-Humboldt Deutz), Scania LDF, John Deere JDQ 78A

Art. No.: 1123115



RAVENOL Turbo-Plus SHPD

SAE 20W-50 | API CI-4, SL/CF | ACEA E7, A3/B4

Mineral SHPD engine oils for mixed fleets for diesel and petrol engines, also with turbocharger. Specially for extended oil change intervals.

Allison C4; Caterpillar ECF-1a, ECF-2; Cummins CES 20071, -72, -76, -77, -78; DDC 93K215; Deutz DQC III-10; Global DHD-1; JASO DH-1; Mack EO-M Plus; MAN M 3275-1; MB 228.3, MB 229.1; MTU type 2, type 3; Renault VI RLD, RLD-2; Volvo VDS-3

Art. No.: 1123120



RAVENOL Formel Diesel Super

SAE 10W-30 | API CF-4 / CF | ACEA E2, B4

Modern high-alloyed HD engine oil with selected additives for turbocharged and non-turbocharged diesel engines. Extended oil change intervals.

MB 228.1, VW 505 00, MAN 271, Volvo VDS, MTU Type 2, ZF TE-ML 07C, Cat. TO-2, Allison C4

Art. No.: 1123205



RAVENOL Formel Diesel Super

SAE 15W-40 | API CF-4 | ACEA E2, B4

Mineral high-quality multigrade engine oil for turbocharged and non-turbocharged diesel engines. Extended oil change intervals.

MB 229.1, MAN 271, ZF TE-ML 07C, VW 505 00, Allison C4, Cat. TO-2, VOLVO VDS, MACK EO-L, Renault RD-2/RLD, TEDOM 258-2 (61-0-0258)

Art. No.: 1123215



RAVENOL Super Truck

SAE 10W | API CF-4 | ACEA E2, B4

High-alloyed HD engine oil with synthetic additives for turbocharged and non-turbocharged HGV diesel engines.

MB 228.0, MAN 270, MTU type 1, VOITH DIWA

Art. No.: 1123710



RAVENOL Super Truck

SAE 20W-20 | API CF-4 | ACEA E2, B4

High-alloyed HD engine oil with synthetic additives for turbocharged and non-turbocharged HGV diesel engines.

MB 228.0

Art. No.: 1123715



RAVENOL Super Truck

SAE 30 | API CF-4/SG | ACEA E2, B4

High-alloyed HD engine oil with synthetic additives for turbocharged and non-turbocharged HGV diesel engines.

MB 228.0, MAN 270, ZF TE-ML 02C, 02H, 03A, 03C, 04B, 07F, MTU Type 1, Allison C-4, Caterpillar TO-2, Deutz DQC I-02, MIL-L-2104 D

Art. No.: 1123720



RAVENOL Super Low Emission Truck

SAE 15W-40 | API CK-4/SN | ACEA E7, E9

Very high-quality mineral HGV engine oil for the most strenuous conditions. Year-round engine oil for diesel engines with and without turbocharger for HGV, buses and machinery. Improves performance, reliability and cleanliness of engines.

Caterpillar ECF-3, Cummins CES 20081/20086, Detroit Diesel DDC93K218, DDC93K222, Deutz DQC-III 10 LA, IVECO, JASO DH-2, MAN M3275, M3575, MB 228.31, MTU Type 2.1, Volvo VDS-4.5, Mack EOS-4.5, Renault VI RLD-3

Art. No.: 1123216



RAVENOL Formel Diesel Super

SAE 20W-50 | API CH-4 | ACEA E2, B4

High-alloyed HD engine oil with selected additives for turbocharged and non-turbocharged diesel engines.

Allison C4; Cat. TO-2; MAN 271; MB 228.1; Volvo VDS; VW 505 00

Art. No.: 1123220



RAVENOL Spezial Diesel

API CD | ACEA B2

Mineral multigrade engine oil for turbocharged and non-turbocharged diesel engines. Year-round high lubrication under varying operating conditions.

CCMC G4; MB 227.1; MIL-L-46152 B, MIL-L-2104 D

Art. No.: 1113310 SAE 10W-30
Art. No.: 1113311 SAE 15W-40



RAVENOL Super Truck

SAE 40 | API CF-4/SG | ACEA E2, B4

High-alloyed HD engine oil with synthetic additives for turbocharged and non-turbocharged HGV diesel engines.

MB 228.0, MB 235.12, MAN 270, ZF TE-ML 02H, 04A, 04B, MTU Type 1, Allison C-4, Caterpillar TO-2, Deutz DQC I-02, MIL-L-2104D

Art. No.: 1123725



RAVENOL Super Truck

SAE 50 | API CF-4/SG | ACEA E2, B4

High-alloyed HD engine oil with synthetic additives for turbocharged and non-turbocharged HGV diesel engines.

MB 228.0, ZF TE-ML 04B, 04E, Allison C-4, Caterpillar TO-2, Deutz DQC I-02, MIL-L-2104D

Art. No.: 1123726



RAVENOL Standard Truck

SAE 50 | API SG / CF | ACEA E2, B4

Universal, mineral, high performance single grade engine oil for use in turbocharged and non-turbocharged HGV diesel engines. Also suitable for stationary facilities.

MB 227.0, MB 228.0, MAN 270, Cat. TO-2, MTU Type 1, Allison C4, ZF TE-ML 03, 04, 05, 06, 07, 10, 14

Art. No.: 1123610



**RAVENOL
Standard Truck**

SAE 20W-20 | API SF/CF | ACEA E2, B4

Universal, mineral, high performance single grade engine oil for use in turbocharged and non-turbocharged HGV diesel engines. Also suitable for stationary facilities.

MAN 270; MB 227.0, MB 228.0, MB 235.27; MIL-L-2104 D, MIL-L-46152 B; MTU Type 1; Voith Retarder A, Voith DIWA; ZF TE-ML 02C, 03B, 04B, 06A, 07D

Art. No.: 1123615



**RAVENOL
Standard Truck**

SAE 30 | API CD | ACEA E2, B4

Universal, mineral, high performance single grade engine oil for use in turbocharged and non-turbocharged HGV diesel engines. Also suitable for stationary facilities.

MTU Type 1 (DDC BR 2000 u. 4000), MB 228.0, MAN 270, VOITH Retarder A, VOITH DIWA, ZF TE-ML 02C, 03B, 04B, 06A, 07D

Art. No.: 1123620



**RAVENOL
Standard Truck**

SAE 40 | API CF | ACEA E2, B4

Universal, mineral, high performance single grade engine oil for use in turbocharged and non-turbocharged HGV diesel engines. Also suitable for stationary facilities.

MTU Type 1 (DDC BR 2000 u. 4000), MB 228.0, MAN 270, VOITH Retarder A, VOITH DIWA, ZF TE-ML 02C, 03B, 04B, 06A, 07D

Art. No.: 1123625



**RAVENOL
Standard Truck**

SAE 50 | API CD | ACEA E2, B4

Universal, mineral, high performance single grade engine oil for use in turbocharged and non-turbocharged HGV diesel engines. Also suitable for stationary facilities.

MTU Type 1 (DDC BR 2000 u. 4000), MB 228.0, MAN 270, VOITH Retarder A, VOITH DIWA, ZF TE-ML 02C, 03B, 04B, 06A, 07D

Art. No.: 1123626

Agricultural machinery oils

RAVENOL lubricants are specially customised to meet the diverse needs of the farming sector.

Many tractors use various oil circuits for their engines, gearboxes and hydraulics, in a similar way to cars. The requirements and specifications are therefore also similar.

There are also particularities. Tractors with powershift transmissions and older tractors in particular have a common oil circuit for the transmission, rear axle and hydraulics, with wet multi-plate clutches running in the oil bath. This results in special requirements that cannot be met with standard oils. For such machines, a Super Tractor Oil Universal (STOU) is generally used, which fulfils the requirements of axle and gear oils (API GL-4 with limited slip (LS) additives), engine oil and those of a hydraulic oil. Universal Tractor Transmission Oils (UTTO oils), on the other hand, are only suitable for transmissions, wet brakes and hydraulics, not for the engine.





RAVENOL STOU

SAE 5W-30 | API GL-4, AP CG-4/SF | ACEA E2

Special oil type STOU for agricultural machinery, excavators and agricultural machines. Use in engines, transmissions and hydraulic systems.

MB 227.1, MB 228.1, MB 228.3, John Deere J27, Massey Ferguson M 1139 / M 1144 / M 1145, Allison C4, Caterpillar TO-2, MIL-L-2104D, ZF TE ML 06A, 06B, 06C, 06D, 07B, Ford ESN-M2C 159B

Art. No.: 1310108



RAVENOL STOU

SAE 10W-30 | API SF / CE / CF-4 / CG-4, GL-4, HLP ISO VG 68 | ACEA E2

Special oil type STOU for agricultural machinery, excavators and agricultural machines. Use in engines, transmissions, hydraulic systems and compressors.

Engine oil: SAE 10W-30, API CG-4/SF, ACEA E3, MB 227.1, MB 228.1, MB 228.3, New Holland / Ford ESN-M2C-134 B/C/D, -159B/86B, MIL-L-2104 D Transmission oil: SAE 80W, API GL-4, Allison C-4, Caterpillar TO-2, ZF TE-ML 03A, 05K, 06B, 07B, 07D, MAN 270; Hydraulic oil: HVLP ISO VG 68 special tractor oil: John Deere J 27, Massey-Ferguson M1135, M1139, M1144; Compressor oil; Holman Compair Compressor; Atlas Copco Compressor

Art. No.: 1310100



RAVENOL STOU

SAE 15W-30 | API CE / SF, GL-4, HLP ISO VG 68 | ACEA E1 / E2

Special oil type STOU for agricultural machinery, excavators and agricultural machines. Use in engines, transmissions, hydraulic systems and compressors.

SAE 80W, API GL-4, MIL-L-2105, Allison C4, Caterpillar TO-2, ZF TE-ML 06B, 07B, HLP ISO VG 68, Vickers pump test, Ford pump test, Denison HF 2, John Deere J27 A, J20 C / D, Ford NH 024C, 324B, 540B, Massey-Ferguson M 1127, M 1139, M 1144, Case International J I, Case MS 1118 / 1209 / 1206, FIAT AF 87, International Harvester B6, Holman Compair Compressor, Atlas Copco Compressor

Art. No.: 1310112



RAVENOL CATOEL TO-4

API CF, MT-1

Special power gear oil for the supply of construction machinery and tractors.

Caterpillar TO-4, TO-4M, Allison C4, KomatsuKES 07.868.1 (2002), Eaton Fuller, ZF TE-ML 03C, 07F (ZF001852)

Art. No.: 1310610 SAE 10W
Art. No.: 1310613 SAE 30
Art. No.: 1310614 SAE 40



RAVENOL CATOEL TO-4

API CF

Special power gear oil for the supply of construction machinery and tractors.

Caterpillar TO-4, Allison C4, Komatsu Micro Clutch, Eaton Fuller, ZF TE-ML 03C

Art. No.: 1310615 SAE 50
Art. No.: 1310616 SAE 60



RAVENOL UTTO BIO

API GL-4

Biodegradable universal hydraulic and gear oil as lubricating oil for hydraulic and transmission systems of agricultural and road construction machinery.

Massey Ferguson, John Deere, Ford New Holland, biodegradability: CEC-L-33-T83 (155 kW) (3wks)

Art. No.: 1310720



RAVENOL STOU

SAE 10W-40 | API CG-4, GL-4, HVLP ISO VG 68-100 | ACEA E3

Special oil type STOU for agricultural machinery, excavators and agricultural machines. Use in engines, transmissions and hydraulic systems.

Engine oil: MB 227.1, MB 228.1, MB 228.3, New Holland NH 410B, Ford ESN-M2C-134 B/C/D, Ford ESN-M2C-159B/C, MIL-L-2104 D; gear oil: SAE 80W, 85W, 80W-90, 85W-90, API GL-4, Allison C-4, Caterpillar TO-2, ZF TE-ML 06A, 06B, 06C, 06D, 07B, MAN 271; special tractor oil: John Deere J20C/D, J27, Massey-Ferguson M1139, M1144, M1145, CASE IH-MS 1209, FENDT KDM 41.2011, MAT 3525; compressor oil: Holman Compair Compressor; Atlas Copco Compressor

Art. No.: 1310111



RAVENOL STOU

SAE 15W-40 | API SF / CE / CF-4, GL-4 | ACEA E1, CCMC G2 / D4

Special oil type STOU for agricultural machinery, excavators and agricultural machines. Use in engines, transmissions and hydraulic systems.

Ford M2C-159C, MF M-1143 / 1144, ZF TE-ML 06B, 07B, Allison C-4, Cat. TO-2, Ford M2C 86A / 134D, John Deere J 27, NH 420A / NH 410B, MB 227.1

Art. No.: 1310113



RAVENOL STOU

SAE 20W-40 | API SF / CE / CF-4, GL-4 | ACEA CCMC G2 / D4

Special oil type STOU for agricultural machinery, excavators and agricultural machines. Use in engines, transmissions and hydraulic systems.

Ford M2C-159C, MF M-1143 / 1144, ZF TE-ML 06B, 07B, Allison C-4, Cat. TO-2, Ford M2C 86A / 134D, John Deere J 27, NH 420A / NH 410B, MB 227.1

Art. No.: 1310114



RAVENOL Getriebeöl UTTO

API GL-4

Mineral transmission and hydraulic oils for modern tractors.

ZF TE-ML 03E, 05F, 06K, 17E, 21F, HVLP (DIN 51524 Part 3), John Deere J 20 C, J21A, Ford ESN-M2C 86B/C/134 D, Massey Ferguson M 1141/M 1143/M 1145, Case IH-MS 1206/1207, Caterpillar TO-2, SDFG OT-1891A, Allison C-4, Volvo B6M WB 101 (BM Valmet, AWB Achsen), Renault 180596, MAT 3505/3506/3525, NH 410B, White Farm (AGCO) Q- 1802/-182616, Deutz-Allis AC Power Fluid 821XL

Art. No.: 1310700



RAVENOL Getriebeöl UTTO Arctic

SAE 75W | API GL-4 | ISO VG 32

Combined transmission and hydraulic oil based on HC base oils and PAO for modern tractors and agricultural equipment.

J. I. Case (International harvesters and risers - JIC-145/MS-1210, JIC-185/MS-1204, JIC-185/MS-1205, MS-1206 MS-1207, JIC 143/144 B6 (International Harvester), SEMS 17001 (risers) John Deere - J20C, J20D, (J20A, J20B), J14B/C, J21A, Deutz-Allis, Allis-Chalmers(Agco) -Part No. 9003088, 9003089, 9003090, 9003091, New Holland, Ford New Holland (Fiat), Versatile - CNH MAT 3526, CNH MAT 3525, ESN-M2C41-B, ESN-M2C48-B, M2C48-C/C2/C3, ESN-M2C53-A, ESN-M2C86-B, ESN-M2C134-A,B,C, ESN-M2C134D, Versatile, Hesston, Hesston - Fiat - AF-87, Massey - Ferguson, Minneapolis Moline, New Idea, Oliver (Agco) - M1110, M1127A/B, M1129-A, M1135, M1141, Q-1705, Q-1766, Q-1722, Q-1802, Q-1826 Caterpillar - TO2, Kubota - UDT Fluid, ZF TE-ML 3E, 3F, 5F, 6K

Art. No.: 1310711

RAVENOL®

MOTOBIKE

Since they were invented, motorbikes have been performing in ways that no other vehicle can do. The feeling of freedom and speed that a two-wheeler offers is unparalleled and can hardly be experienced with such intensity in a car.

The high performance engines of modern bikes such as Ducati and Honda often get twice the power out of the same cubic capacity compared with modern passenger car engines! Bikes can do this thanks to extremely high revolutions per minute! However, higher revolutions also mean higher operating temperatures. Therefore, at fully capacity temperatures of up to 350°C can arise in certain areas of the engine. The oxidation value, i.e. the ageing of the oil, increases drastically with rising temperatures. Above the temperature of 60°C, the service life of the oil reduces by 50% with every additional temperature increase of 10°C! It's not only the high operating temperatures, but also the extreme engine performance that makes the engine work harder to protect the engine components from wear and sludge formation while simultaneously guaranteeing perfect transmission and clutch performance.

RAVENOL has developed its Racing 4-T Motobike series using our USVO® technology, specifically to meet these huge challenges. These oils offer significantly better properties than conventional base oils, as they consist exclusively of synthetic base oils from Group 4 & 5, known as polyalphaolefins (PAO) and ester oils. Their low-temperature properties and significantly increased oxidation stability outweigh the performance that a base oil can offer on these points. The latter in particular ensures that the oil maintains its excellent performance throughout the entire oil change cycle and guarantees consistently high lubrication until the oil is changed. USVO® Racing 4-T Motobike lubricants also benefit from much higher shear stability. This means that they can keep their viscosity in the optimal range, regardless of the respective operating temperature. The USVO® technology therefore guarantees very high pressure absorption and an extremely stable lubrication film, which is reflected in the excellent wear protection qualities and in the improved performance.



RAVENOL Racing 4-T Motobike

SAE 10W-40 | API SN | JASO MA2

Fully synthetic 4-stroke motorbike engine oil with USVO® & CleanSynto® technology, specially developed for use in racing. 100% PAO and ester-based formulation.

Aprilia; BMW; Ducati; Honda; Kawasaki; Moto-Guzzi; Suzuki; Triumph; Yamaha; etc.

Art. No.: 1171106

RAVENOL Racing 4-T Motobike

SAE 10W-50 | API SN | JASO MA2

Fully synthetic 4-stroke motorbike engine oil with USVO® & CleanSynto® technology, specially developed for use in racing. 100% PAO and ester-based formulation.

Aprilia; BMW; Ducati; Honda; Kawasaki; KTM; Moto-Guzzi; Suzuki; Triumph; Yamaha; etc.

Art. No.: 1171107

RAVENOL Racing 4-T Motobike

SAE 10W-60 | API SN | JASO MA2

Fully synthetic 4-stroke motorbike engine oil with USVO® & CleanSynto® technology, specially developed for use in racing. 100% PAO and ester-based formulation.

Aprilia; BMW; Ducati; Honda; Husqvarna; Kawasaki; KTM; Moto-Guzzi; MV Agusta; Suzuki; Triumph; Yamaha; etc.

Art. No.: 1171108

RAVENOL Racing 4-T Motobike

SAE 15W-50 | API SN | JASO MA2

Fully synthetic 4-stroke motorbike engine oil with USVO® & CleanSynto® technology, specially developed for use in racing. 100% PAO and ester-based formulation.

Aprilia; BMW; Ducati; Honda; Kawasaki; Moto-Guzzi; Suzuki; Triumph; Yamaha; etc.

Art. No.: 1171109

Motorbikes and accessories

RAVENOL motorbike products have been specially developed for motorbike riders and their challenging machines. Specifically tailored additives always offer optimal lubrication, even when the riding conditions are not favourable. Many of our oils for motorcycles, scooters and quads are listed by the Japan Lubricating Oil Society (JALOS), which was founded by the Japanese Automotive Standard Organization (JASO).



RAVENOL Motobike 4-T Ester

SAE 5W-30 | API SN | JASO MA2

Fully synthetic and highly durable engine oil with ester additive for challenging motorbike engines with wet and oil-lubricated clutches.

JASO MA2 T903:2016, Yamaha, Kawasaki, Honda, Aprilia, BMW, Suzuki, Ducati, Triumph, Moto-Guzzi

Art. No.: 1171101



RAVENOL Motobike 4-T Ester

SAE 5W-40 | API SN | JASO MA2

Synthetic and highly durable engine oil with ester additive for challenging motorbike engines with wet and oil-lubricated clutches.

JASO MA2 T903:2016, Yamaha, Kawasaki, Honda, Aprilia, BMW, Suzuki, Ducati, Triumph, Moto-Guzzi

Art. No.: 1171102



RAVENOL Motobike 4-T Ester

SAE 10W-30 | API SN | JASO MA2

Reliable and highly durable semi synthetic engine oil with ester additive for challenging motorbike engines with wet and oil-lubricated clutches.

JASO MA2 T903:2016, Yamaha, Kawasaki, Honda, Aprilia, BMW, Suzuki, Ducati, Triumph, Moto-Guzzi

Art. No.: 1172111



RAVENOL Motobike 4-T Ester

SAE 10W-40 | API SN | JASO MA2

Reliable and highly durable semi synthetic engine oil with ester additive for challenging motorbike engines with wet and oil-lubricated clutches.

JASO MA2 T903:2016, Yamaha, Kawasaki, Honda, Aprilia, BMW, Suzuki, Ducati, Triumph, Moto-Guzzi

Art. No.: 1172112



RAVENOL Motobike 4-T Ester

SAE 10W-50 | API SN | JASO MA2

Fully synthetic engine oil with ester additive for challenging motorbike engines with wet and oil-lubricated clutches.

JASO MA2 T903:2016, Yamaha, Kawasaki, Honda, Aprilia, BMW, Suzuki, Ducati, Triumph, Moto-Guzzi

Art. No.: 1171103



RAVENOL Motobike 4-T Ester

SAE 10W-60 | API SN | JASO MA2

Fully synthetic engine oil with ester additive for challenging motorbike engines with wet and oil-lubricated clutches.

JASO MA2 T903:2016, Yamaha, Kawasaki, Honda, Aprilia, BMW, Suzuki, Ducati, Triumph, Moto-Guzzi

Art. No.: 1171104



RAVENOL Motobike 4-T Mineral

SAE 15W-40 | API SN | JASO MA2

Reliable and highly durable mineral engine oil with ester additive for challenging motorbike engines with wet and oil-lubricated clutches.

JASO MA2 T903:2016, Yamaha, Kawasaki, Honda, Aprilia, BMW, Suzuki, Ducati, Triumph, Moto-Guzzi

Art. No.: 1173121



RAVENOL Motobike 4-T Ester

SAE 15W-50 | API SN | JASO MA2

Reliable and highly durable semi synthetic engine oil with ester additive for challenging motorbike engines with wet and oil-lubricated clutches.

JASO MA2 T903:2016, Yamaha, Kawasaki, Honda, Aprilia, BMW, Suzuki, Ducati, Triumph, Moto-Guzzi

Art. No.: 1172113



RAVENOL Motobike 4-T Mineral

SAE 20W-40 | API SN | JASO MA2

Reliable and highly durable mineral engine oil with ester additive for challenging motorbike engines with wet and oil-lubricated clutches.

JASO MA2 T903:2016, Yamaha, Kawasaki, Honda, Aprilia, BMW, Suzuki, Ducati, Triumph, Moto-Guzzi

Art. No.: 1173123



RAVENOL Motobike V-Twin Mineral

SAE 20W-50

High-quality mineral 3-in-1 lubricant for engine, drive and crankshaft, specially designed for cruiser and chopper motorbikes.

BMW Cruiser Motorcycles, Harley Davidson 62600005, 62600031, Honda 08C35-A251M01, 08C35-A251L01, Indian Motorcycles, Victory Motorcycles, Yamalube LUB20W50AP04, LUB20W50AP12, Triumph Motorcycles, Moto Guzzi Motorcycles, Suzuki V-Twin Motor Oil

Art. No.: 1173105



RAVENOL Motogear

SAE 80W-90 | API GL-4

Mineral oil-based gear oil with specially effective additives for gearboxes.

Art. No.: 1250055



RAVENOL Motogear

SAE 80W-90 | API GL-5

Hypoid mineral oil-based gear oil with specially high pressure additives for gearboxes.

Art. No.: 1250070



RAVENOL Motobike 4-T Mineral

SAE 20W-50 | API SN | JASO MA2

PAO(polyalphaolefin)-based, fully synthetic engine oil with special USVO® technology, as well as tried-and-tested CleanSynto® technology for passenger car petrol and diesel engines with and without turbocharger and direct injection.

JASO MA2 T903:2016, Yamaha, Kawasaki, Honda, Aprilia, BMW, Suzuki, Ducati, Triumph, Moto-Guzzi

Art. No.: 1173122



RAVENOL Motobike 4-T Standard

SAE 20W-50 | API SL | JASO MA2

Reliable and highly durable semi synthetic engine oil with ester additive for challenging motorbike engines with wet and oil-lubricated clutches.

Art. No.: 1173133



RAVENOL Motobike V-Twin Fullsynth

SAE 20W-50

High-quality, fully-synthetic 3-in-1 lubricant for engine, drive and crankshaft, specially designed for cruiser and chopper motorbikes.

BMW Cruiser Motorcycles, Harley Davidson 62600005, 62600031, Honda 08C35-A251M01, 08C35-A251L01, Indian Motorcycles, Victory Motorcycles, Yamalube LUB20W50AP04, LUB20W50AP12, Triumph Motorcycles, Moto Guzzi Motorcycles, Suzuki V-Twin Motor Oil

Art. No.: 1171105



RAVENOL Motogear

SAE 75W-90 | API GL-4

Fully synthetic low friction gear oil for gearboxes and rear axles which are subject to extreme strain.

Art. No.: 1250050



RAVENOL Fork Oil Ultra Light 2,5W, Light 5W

Fully synthetic ester-based fork oil for all high-performance motorbike forks and particularly for SHOWA and USD forks.

Aprilia; BMW; Ducati; Honda; Kawasaki; Moto-Guzzi; Suzuki; Triumph; Yamaha

Art. No.: 1182101 SAE 2.5W
Art. No.: 1182102 SAE 5W



RAVENOL Fork Oil Medium 10W, Heavy 15W, Very Heavy 20W

Mineral oil-based fork oil for all forks on road and dirt bikes.

Aprilia; BMW; Ducati; Honda; Kawasaki; Moto-Guzzi; Suzuki; Triumph; Yamaha

Art. No.: 1182104 SAE 10W
Art. No.: 1182105 SAE 15W
Art. No.: 1182106 SAE 20W



RAVENOL Motogear
SAE 10W-30 | API GL-4

Semi synthetic special multigrade gear oil, specially designed for air- and water-cooled 2- and 4-stroke machines with separate gearbox lubrication.

YAMAHA

Art. No.: 1250100



RAVENOL Motogear
SAE 10W-40 | API GL-4

Special multigrade gear oil based on synthesis technology and special esters for easy gear changes including under very hard operating conditions.

Art. No.: 1250101



RAVENOL QUAD 4T
SAE 10W-40 | API SL | JASO MA2

Semi synthetic engine oil for quads and ATV. JASO 049RAV160, 4-stroke quad engines in KAWASAKI, YAMAHA, BOMBARDIER, SUZUKI, HONDA motorbikes, amongst others.

Art. No.: 1152160



RAVENOL Air Filter Oil Spray

Spray oil for all foam air filters for dirt bikes, road bikes and quads.

Art. No.: 1360301



RAVENOL Air Filter Clean Spray

Degreases and thoroughly cleans all foam air filters for off-road bikes, road bikes and quads.

Art. No.: 1360302



RAVENOL Kettenöl Off Road Spray

Specially designed for chain lubrication of off-road bikes and quads.

Art. No.: 1360303



RAVENOL Quadrogear

Synthetic special axle oil for quads and ATV, with integrated wet brake.

KAWASAKI, YAMAHA, BOMBARDIER, SUZUKI

Art. No.: 1250200



RAVENOL Motobike System Cleaner Shot

Fuel additive with high proportion of cleaning and corrosion-protective additives for all petrol direct injection engines for motorbikes which increases the performance of the engine.

Art. No.: 1390401



RAVENOL Motobike Engine Cleaner Shot

Highly effective oil circuit cleaning concentrate for the efficient cleaning of all motorbike engines (with and without catalytic converter).

Art. No.: 1390402



RAVENOL Kettenöl Reiniger Spray

Degreases and thoroughly cleans motorbike chains as well as the chains of other vehicles.

Art. No.: 1360304



RAVENOL Carb Reiniger Spray

Thoroughly cleans carburetors in the intake and throttle valve area.

Art. No.: 1360305



RAVENOL Ketten-Spray

Wear protection for chains. Immediately penetrates the ring gap of the chains, giving excellent wear protection in this area.

Art. No.: 1360032

2-stroke and 4-stroke petrol engines

RAVENOL offers various 2-stroke and 4-stroke engine oils for a wide variety of applications. The special formulations, such as for rollers, chainsaws or even snowmobiles always take into account the individual requirements in order to always guarantee the best possible lubrication results.



RAVENOL MPS Motocross Powersynth 2T

API TC, ISO-L-EGD | JASO FD

Fully synthetic, high-quality 2-stroke oil with special esters and polyisobutyl (PIB) component for air- and water-cooled 2-stroke engines. Suitable for separate lubrication and self-mix systems.

KTM, Beta, GasGas, Husqvarna, Yamaha, Kawasaki, Honda, Suzuki

Art. No.: 1144110



RAVENOL Selfmix 2T

API TB, ISO-L-EGB | NMMA TC-W, JASO FB

Mineral 2-stroke oil, self-mixing and for separate lubrication.

Husqvarna, Stihl, Partner, McCulloch, Jonsered, Oleo-Mac, Poulan, Maruyama, Dolmar, Oregon, Makita, Ryobi, Hitachi

Art. No.: 1153100



RAVENOL 2-Takt-Öl NOT SELF MIX

API SA

Mineral high-quality 2-stroke oil for conventional 2-stroke engines without self-mix.

Art. No.: 1153101



RAVENOL Scooter Fullsynth. 2-Stroke oil

API TC, ISO-L-EGC | JASO FD

Fully synthetic, high-quality 2-stroke oil with special esters and polyisobutyls (PIB) for air- and water-cooled 2-stroke engines. Suitable for separate lubrication and self-mix systems. Recommended mix: max. 1:100.

JASO 049RAV153, Aprilia, Honda, Kymco, Peugeot, Piaggio, Suzuki, Vespa, Yamaha

Art. No.: 1151150





RAVENOL Scooter Teilsynth. 2-Stroke oil

API TC, ISO-L-EGC | JASO FC

Fully synthetic, high-quality 2-stroke oil with special esters and polyisobutyls (PIB) for air- and water-cooled 2-stroke engines. Suitable for separate lubrication and self-mix systems. Recommended mix: max. 1:75.

JASO 049RAV150, Aprilia, Honda, Kymco, Peugeot, Piaggio, Suzuki, Vespa, Yamaha

Art. No.: 1152150



RAVENOL Scooter Mineral 2-Taktöl

API TB, ISO-L-EGB | JASO FB

Mineral high-quality 2-stroke oil for air- and water-cooled 2-stroke engines. Suitable for separate lubrication and self-mix systems. Recommended mix: max. 1:50.

JASO 049RAV156, Aprilia, Honda, Kymco, Peugeot, Piaggio, Suzuki, Vespa, Yamaha

Art. No.: 1153150



RAVENOL Scooter 4-Takt Fullsynth.

API SN

Fully synthetic, high-quality, green-coloured PAO-based engine oil for small 4-stroke engines.

Yamaha, Honda, Aprilia, Suzuki, Kawasaki, Peugeot, Arctic Cat, Bombardier, Argo, Dinli, Polaris

Art. No.: 1151155



RAVENOL Snowmobiles Mineral 2-Takt

API TB, ISO-L-EGD | JASO FB

Mineral for 2-stroke snowmobiles. Recommended mix: max. 1:50.

JASO 049RAV157, Yamaha, Suzuki, Bombardier, Kawasaki, Arctic Cat, Ski-Doo, Polaris

Art. No.: 1153310



RAVENOL Snowmobiles 4-Takt Fullsynth.

API SN

Fully synthetic, fuel-saving engine oil for 4-stroke snowmobile engines.

Yamaha, Suzuki, Bombardier, Kawasaki, Arctic Cat, Ski-Doo, Polaris

Art. No.: 1151311



RAVENOL Schneefräse 4-Takt

SAE 0W-30 | API SL | ACEA A3 / B4

Fully synthetic 4-stroke oil, specially designed for 4-stroke snow blowers.

Ariens, Briggs&Stratton, Caiman, Canadiana, Craftsman, CubCadet, Honda, Husqvarna, McCulloch, Murray, MTD, Partner, Snapper, Stiga, Swisher, TORO, White Outdoor, Yard-Man.

Art. No.: 1151106



RAVENOL Scooter 4-Takt Teilsynth.

SAE 10W-40 | API SL

Semi synthetic high-quality green-coloured engine oil for small 4-stroke engines.

Yamaha, Honda, Aprilia, Suzuki, Kawasaki, Peugeot, Arctic Cat, Bombardier, Argo, Dinli, Polaris

Art. No.: 1152155



RAVENOL Snowmobiles Fullsynth. 2-Takt

API TD, ISO-L-EGD | JASO FD

Fully synthetic for 2-stroke snowmobiles. Recommended mix: max. 1:100.

JASO 049RAV154, Yamaha, Suzuki, Bombardier, Kawasaki, Arctic Cat, Rotax 253

Art. No.: 1151310



RAVENOL Snowmobiles Teilsynth. 2-Takt

API TC, ISO-L-EGC | JASO FC

Fully synthetic for 2-stroke snowmobiles. Recommended mix: max. 1:75.

JASO 049RAV152, Yamaha, Suzuki, Bombardier, Kawasaki, Arctic Cat, Ski-Doo, Polaris

Art. No.: 1152310



RAVENOL Schneefräse 4-Takt

SAE 5W-30 | API SM / SL | ACEA A5 / B5

Fully synthetic 4-stroke oil, specially designed for 4-stroke snow blowers.

Ariens, Briggs&Stratton, Caiman, Canadiana, Craftsman, CubCadet, Honda, Husqvarna, McCulloch, Murray, MTD, Partner, Snapper, Stiga, Swisher, TORO, White Outdoor, Yard-Man.

Art. No.: 1151105



RAVENOL 4-Takt Gardenoil

SAE 30 | API CD / SF

Mineral single grade engine oil for use in 4-stroke lawnmowers.

MB 227.0, MIL-L-46152 B, MIL-L-2104 D, Husqvarna, Honda, Stihl, Oleo-Mac, CCMC G4

Art. No.: 1113301

Marine oils

High-quality RAVENOL lubricants deliver excellent performance – and not just on land. RAVENOL marine and outboard oils are tailored to the specific nature of water sports, with special base oils and additives, and therefore fulfil all the requirements that leisure and sports boat engines need from a modern lubricant.

As a long-term partner of the Racing Team Germany which is actively represented in several important water sports series, RAVENOL puts its first-hand experience into the development of its oils. The opportunity to test lubricants under extreme racing conditions enables constant further development and thereby guarantees the best possible performance of the oils.

Our outboard oils also have NMMA (= National Marine Manufacturers Association) registration. We thereby differentiate between 2-stroke (TC-W3®) and 4-stroke (FC-W®) engine oils.



RAVENOL Marine Performance

SAE 15W-40 | API CK-4/ CJ-4/ SN | ACEA E9, E7

Year-round SHPD engine oil for both turbocharged and non-turbocharged marine diesel engines and high wear protection.

Volvo VDS-4.5; Mack EOS-4.5; Renault VI RLD-3; Caterpillar; Detroit Diesel; IVECO; MAN; Mercruiser; MTU; NANNI Diesel; PERKINS; SKL; Steyr; SULZER; VETUS DEUTZ; YANMAR

Art. No.: 1163101



RAVENOL Marineoil Petrol

API SL

Engine oil for use in marine petrol engines.

VOLVO Penta AB, Mercruiser, Yanmar, Kohler

Art. No.: 1162200 SAE 10W-40
Art. No.: 1163200 SAE 15W-40
Art. No.: 1163210 SAE 20W-50



RAVENOL Marineoil Petrol
SAE 25W-40 | NMMA FC-W (CAT)

Modern high-alloyed MARINE engine oil with synthetic additives. It is perfectly suited to inboard and outboard MARINE petrol engines.

NMMA FC-W (CAT)[®] FC-43514X, NMMA FC-W, Yamaha, Honda, Suzuki, YANMAR, Mercruiser, VOLVO Penta AB, Kohler, Johnson, Mercury, Evinrude

Art. No.: 1163220



RAVENOL Marineoil Petrol Synthetic
SAE 25W-40 | API SL | ACEA A3/B4

Synthetic engine oil for use in marine petrol engines.

VETUS DEUTZ, Steyr, MTU, VOLVO PENTA, Caterpillar, IVECO, MAN, Mercruiser, PERKINS, NANNI Diesel, YANMAR, Detroit Diesel, SULZER, SKL

Art. No.: 1162115



RAVENOL Marineoil Diesel SHPD
SAE 10W-40 | CI-4/CF | ACEA E7/ B4

Engine oil for use in marine diesel engines.

VETUS DEUTZ, Steyr, MTU, VOLVO PENTA, Caterpillar, IVECO, MAN, Mercruiser, PERKINS, NANNI Diesel, Yanmar, Detroit Diesel, SULZER, SKL

Art. No.: 1162100



RAVENOL Marineoil Diesel SHPD Synthetic
SAE 25W-40 | API CI-4/CF | ACEA E7, B4

Fully synthetic engine oil with unconventional and HC base oils, synthetic components and modern additives for use in marine diesel engines.

VETUS DEUTZ, MTU, Steyr, Caterpillar, MAN, PERKINS, NANNI Diesel, Detroit Diesel, Mercruiser, IVECO, SKL, SULZER, VOLVO PENTA, Yanmar

Art. No.: 1162105



RAVENOL Marine Gear Fullysynth. MGF
SAE 75W-90

Fully synthetic high performance transmission oil which can be preferably used in the marine sector for lubricating boat and ship transmissions (in- and outboard) for stern- and reverse gear units as well as for Z-drives when a synthetic GL-5/GL-4 transmission oil is required.

ZF TE-ML 12B/16F/17B, Honda, Suzuki, OMC, VOLVO PENTA, Mercruiser, YANMAR, Yamaha

Art. No.: 1231100



RAVENOL Marine Gear Lube
API GL-5

Marine gear oil

OMC, Volvo Penta, Mercruiser, Yanmar

Art. No.: 1233100



RAVENOL Marineoil Diesel SHPD
SAE 15W-40 | API CI-4/CF | ACEA E7/ B4

Engine oil for use in marine diesel engines.

Volvo VDS-3, VETUS DEUTZ, Steyr, MTU, VOLVO PENTA, Caterpillar, IVECO, MAN, Mercruiser, PERKINS, NANNI Diesel, Yanmar, Detroit Diesel, SULZER, SKL

Art. No.: 1163100



RAVENOL Marineoil Diesel SHPD
SAE 20W-50 | API CI-4 | ACEA E7/ B4

Engine oil for use in marine diesel engines.

Steyr, Mercruiser, Yanmar

Art. No.: 1163110



RAVENOL Marineoil Diesel SHPD
SAE 25W-40 | API CF

Modern high-alloyed mineral marine engine oil with selected additives. It is perfectly suited to inboard marine diesel engines.

VETUS DEUTZ, MTU, Steyr, Caterpillar, MAN, PERKINS, NANNI Diesel, Detroit Diesel, Mercruiser, IVECO, SKL, SULZER, VOLVO PENTA

Art. No.: 1163215



RAVENOL Marine PowerTrim & Steering Fluid

Marine hydraulic oil to lubricate hydraulic systems in the marine sector.

OMC, Volvo Penta, Mercruiser, Yanmar

Art. No.: 1234100



RAVENOL Outboardoil 2T Fullysynth.
API TD | NMMA TC-W3

Fully synthetic, high-quality outboard 2-stroke engine oil with special esters and polyisobutylys (PIB). Suitable for separate lubrication and self-mix systems. Recommended mix: max. 1:100.

NMMA TC-W3[®] RL-90001G, Yamaha, Suzuki, Tohatsu, Johnson, Evinrude, Mercury and Selva

Art. No.: 1151200



RAVENOL Outboardoil 2T Teilsynth.
API TC | NMMA TC-W3

Fully synthetic, high-quality outboard 2-stroke engine oil with special esters and polyisobutylys (PIB). Suitable for separate lubrication and self-mix systems. Recommended mix: max. 1:75.

NMMA TC-W3[®] RL-29018F, Yamaha, Suzuki, Tohatsu, Johnson, Evinrude, Mercury and Selva

Art. No.: 1152200



RAVENOL Outboardoil 2T Mineral

API TB | NMMA TC-W3

Mineral high-quality outboard 2-stroke engine oil. Suitable for separate lubrication and self-mix systems. Recommended mix: max. 1:50.

NMMA TC-W3® RL-90000G, Yamaha, Suzuki, Tohatsu, Johnson, Evinrude, Mercury and Selva

Art. No.: 1153200



RAVENOL Outboardoil 4T

SAE 10W-30 | API SM | NMMA FC-W (CAT)

Semi synthetic engine oil with special formulation for 4-stroke outboard engines with injection according to NMMA FC-W (CAT).

NMMA FC-W (CAT)® FC-51534X, NMMA FC-W, Mercury Verado, Yamaha, Suzuki, Honda, Johnson/Evinrude, Tohatsu/Nissan

Art. No.: 1153203



RAVENOL Outboardoil 4T

SAE 10W-40 | API SM | NMMA FC-W (CAT)

Semi synthetic engine oil with special formulation for 4-stroke outboard engines with injection according to NMMA FC-W (CAT).

NMMA FC-W (CAT)® FC-11298X, NMMA FC-W, Mercury Verado, Yamaha, Suzuki, Honda, Johnson/Evinrude, Tohatsu/Nissan

Art. No.: 1153204



RAVENOL Watercraft Teilsynth. 2-Takt

API TD, ISO-L-EGD | JASO FD, NMMA TC-W3

Semi synthetic 2-stroke oil for 2-stroke engines in watercraft. Recommended mix: max. 1:75.

NMMA TC-W3® RL-30010H

Art. No.: 1152210



RAVENOL Watercraft Mineral 2-Takt

API TB, ISO-L-EGB | NMMA TC-W3

Mineral 2-stroke oil for 2-stroke engines in watercraft. Recommended mix: max. 1:50.

NMMA TC-W3® RL-29901H

Art. No.: 1153210



RAVENOL Watercraft Synthetic 4-Takt

API SG | NMMA FC-W

Synthetic 4-stroke outboard engine oil for use in freshwater-cooled 4-stroke engines in watercraft.

Art. No.: 1151211



RAVENOL Outboardoil 4T

SAE 15W-40 | NMMA FC-W

Mineral engine oil with special formulation for 4-stroke outboard engines with injection according to NMMA FC-W.

NMMA FC-W® FB-83138, Mercury Verado, Yamaha, Suzuki, Honda, Johnson/Evinrude, Tohatsu/Nissan

Art. No.: 1153205



RAVENOL Outboardoil 4T

SAE 25W-40 | API SM | NMMA FC-W (CAT)

Mineral engine oil with special formulation for 4-stroke outboard engines with injection according to NMMA FC-W (CAT).

NMMA FC-W (CAT)® FC-43517X, NMMA FC-W, Mercury Verado, Yamaha, Suzuki, Honda, Johnson/Evinrude, Tohatsu/Nissan

Art. No.: 1153207



RAVENOL Watercraft Fullsynth. 2-Takt

API TD, ISO-L-EGD | JASO FD, NMMA TC-W3

Fully synthetic 2-stroke oil for 2-stroke engines in watercraft. Recommended mix: max. 1:100.

NMMA TC-W3® RL-29019G

Art. No.: 1151210



RAVENOL MARINE 830 TBN8

API CC | MIL-L-2104A

Mineral diesel engine oil in slow-running crosshead diesel engines and as an engine oil in engines subject to light strain in coastal and inland shipping.

DEF 2101D

Art. No.: 1163001 SAE 30
Art. No.: 1163002 SAE 40



RAVENOL MARINE 1230 TBN12, 1240 TBN12, 1630 TBN16, 1640 TBN16

API CF, MIL-L-2104C

Mineral diesel engine oil in slow and fast-speed ship diesel engines, with turbocharger as applicable. Suitable for the lubrication of sprocket transmissions in aggregates on board ships.

DEF-STAN 91-22/2

Art. No.: 1163010 SAE 30
Art. No.: 1163011 SAE 40
Art. No.: 1163020 SAE 30
Art. No.: 1163021 SAE 40



RAVENOL Outboard Castor 2T

Special 2-stroke oil based on tried-and-tested castor oil technology, refined with ester synthetic additives for use in racing. It can be used in engines from 54 HP (125 ccm) to 240 HP (700 ccm).

VRP racing engines, motorboat outboard engines exclusively for racing, 0-125 ccm, 0-175 ccm, 0-250 ccm (2 cylinder 2-stroke boxer engines), 0-350 ccm (2 cylinder, 3 cylinder or 4 cylinder 2-stroke boxer engines), 0-500 ccm and 0-700 ccm (4 cylinder 2-stroke boxer engines)

Art. No.: 1159100

ATF Professional Line – Transmission Fluid Service with Equipment & Know-How from RAVENOL

With the RAVENOL ATF Professional Line as a service and workshop concept, we are able to provide all the options for a full transmission fluid service. The spectrum of services includes transmission rinsing and dynamic transmission fluid change in one workflow. It means that every workshop is in a position to carry out a professional transmission fluid service and to complement their existing range of services.

DYNAMIC EXCHANGER

The RAVENOL Dynamic Exchanger 2.0 reliably rinses and refills automatic transmissions (including CVT and DCT transmissions). Impurities are broken down and rinsed out, meaning that a full lubricant exchange is guaranteed.

UNIQUE ATF PRODUCT PORTFOLIO

The RAVENOL product portfolio of lubricants for transmissions covers the requirements of all vehicle and transmission manufacturers. The special formulations take into account all manner of requirements from the various transmission constructions. We always pay attention to ensure that the functionality and interplay of all transmission-related components are optimally tailored to one another. In the process, specific expertise concerning the transmission and concerning the RAVENOL Dynamic Exchanger 2.0 is passed on. In addition, our partners and customers receive plenty of tips and tricks as well as access to our extensive database in the RAVENOL partner and client area.

EXPERTISE from RAVENOL & HaynesPro®

One special thing that we do is to offer our partners and customers training on how to handle the Dynamic Exchanger. During the training, specific expertise concerning the transmission and the Dynamic Exchanger is passed on and applied. In addition, our partners and customers receive plenty of tips and tricks as well as access to the Haynes Pro® database, which takes the mechanics through the application, step by step.

ADVANTAGES

FOR WORKSHOPS AT A GLANCE

- Professional transmission cleaning and refilling in one step
- Comprehensive exchanger adapter set included in the delivery package
- RAVENOL customer service by making expertise available
- Provision of access rights to the HaynesPro® technical database
- Expansion of the skills on offer in the workshop thanks to the RAVENOL ATF Professional Line
- Availability of spare parts and other adapters is guaranteed worldwide

FOR WORKSHOPS AT A GLANCE

- Transmission cleaning and refilling from a single source
- Smoother gear changes and lower fuel consumption as excess slippage is avoided
- Optimal transmission maintenance through the professional use of the RAVENOL ATF Professional Line
- Optimal lubrication and reduced wear thanks to fresh transmission fluid from RAVENOL's portfolio of lubricants

RAVENOL®

ATF Professional Line NEXT GEN

Device features

- Mobile service unit for automatic transmissions, including continuously variable transmissions (CVT) and dual clutch gears (DSG).
- Automatic oil flow regulation with dynamic exchange
- Multilingual and intuitive menu
- Individual process and device programming is possible
- Integrated RAVENOL ATF database
- Access to HaynesPro® database
- Suitable for using special cleaning products
- Control lights for status display
- Integrated thermal printer for logging vehicle and process data
- Operating pressure up to 10 bar
- Powerful pump unit (7-8 l/min.)
- Permitted ATF temperature: 10 - 90 ° C
- Power supply voltage 12-15 V DC (mobile power supply using the vehicle battery)
- Device measurements (H/B/D): 120/60/47
- Weight 100kg
- Various connection adapters included in the packaging

NEW FEATURES


- two gauge glasses (for fresh oil and old oil)
- automatic rinsing and dynamic oil change functions
- automatic oil flow direction recognition
- improved management software



ATF-FINDER
RAVENOL.DE

Unsere Empfehlungen:

Ihr Fahrzeug

<p>Fabrikat: AUDI A3 (8P) 2.0 TDI 16V Model: 2.0 TDI 16V (2004-01 - 2008-01) Type:</p>	
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Kühlsystem
8.6 (l)


Bremsanlage
1.0 (l)

Bremanlage
1.15 (l)

Verteilergetriebe
0.9 (l)

Differenzial, Vierradantrieb, hinten
0.95 (l)

Kältemittel
525 ± 25 (g)



Automatic transmission fluids

Motor vehicles are equipped with a manual automatic distributor and axle transmissions with the same characteristics. In order to ensure that the transmission works perfectly for the total period of use, special gear oils are required for the relevant assemblies. This is why gear oils are now considered to be a construction element for development purposes. ATF (Automatic Transmission Fluids) are special lubricants with specific, high requirements for use in automatic transmissions. This specifically involves good viscosity/temperature behaviour, high oxidation and shear stability, excellent foaming behaviour and air output capacity, EP properties as well as defined friction performance. In addition to special base oils, ATF oils consist of a variety of additives, without which the requirements profile would not be achievable.

To avoid being mixed up with engine oils, automatic transmission fluids are coloured.

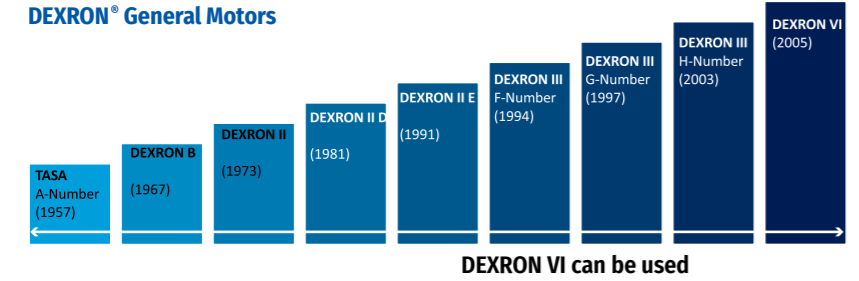
Requirements:

- Transmission of forces on tooth flanks, in the converter (variator CVT)
- Lubrication of parts which slide / roll on each other (rolling and plain bearings, planet sets, freewheels)
- Protection against corrosion, wear, deposits and foams
- Application-specific friction behaviour of clutches and brake bands for shifting comfort and transmission capability
- Seal compatibility so that elastomers do not become brittle, shrink or soften
- Optimal viscosity for cold starts and hot operation
- Cooling the transmission from the inside through heat transportation to the drive housing or separate oil cooler
- High oxidation stability and ageing stability for long oil retention times

Specifications:

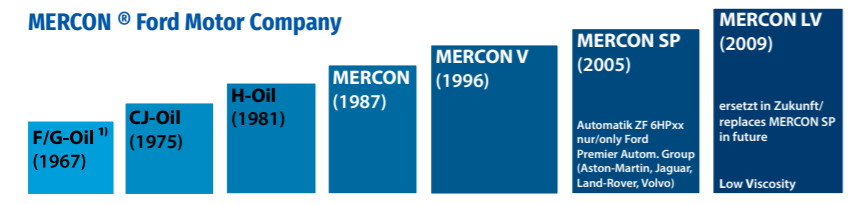
SAE viscosity grades are not stipulated for ATFs, they are part of the respective specification. The most important global specifications for automatic transmissions are DEXRON from General Motors and MERCON from Ford.

DEXRON® General Motors



- TASA = Type A, Suffix A
- A-, B-, C-, D-, E-, F-, G-, H-, N > Approval numbers (Armour Qualification Institute)
- () = Year of introduction of the specification

MERCON® Ford Motor Company



¹⁾F / G oil is not miscible with other ATFs



Source: Mineral Oil Technology August 2005, Maelger, Afton Chemical, ATF - Yesterday, today, tomorrow, www.td-uniti.de

ATF Professional Line

Specially developed for use in automatic transmissions, RAVENOL ATFs (automatic transmission fluids) guarantee smooth functions for all customary automatic transmissions, thanks to their special additives and inhibitions.



RAVENOL ATF 8HP Fluid

Synthetic ATF for 8HP-series transmissions from ZF and 6-speed automatic transmissions of the 6HP series for AUDI Q7.

BMW 83222305397 (up to 02.2013 83222152426), BMW 8322289720, ATF L 12108, VW / AUDI G 060 162 A1/ A2/ A6, VW G 055 162, ZF S671 090 312, ZF TE-ML 11 9HP48, Land Rover LR023288 and LR023289, Mopar 68218925GA (previously: 68157995AB), Fiat 9.55550-AV5, Acura 08200-9016A, Honda 08200-9017, Honda ATF Type 3.1

Art. No.: 1211124



RAVENOL ATF 9HP Fluid

Fully synthetic ATF on the basis of PAO, for the latest generation of all 9 stroke automatic transmissions of ZF.

ATF L 12108; Acura 08200-9016 A, Acura ATF Type 3.0, BMW 83222305397 (bis 02.2013 83222152426), BMW 8322289720; Fiat 9.55550-AV5; Honda 08200-9017, ATF Type 3.1, Land Rover LR023288, LR023289; Mopar 68218925AA, 68157995AB; VW/AUDI G 060 162 A1/A2/A6; VW G 055 162; ZF S671 090 312, ZF TE-ML 11 9HP48

Art.-Nr.: 1211149





RAVENOL ATF M 6-Serie

Synthetic ATF for 5-speed automatic transmissions from Mercedes-Benz.

MB 236.10 (A 001 989 21 03), Chrysler 52107891AA

Art. No.: 1212105



RAVENOL ATF M 9-Serie

Synthetic ATF for 7-speed automatic transmissions from Mercedes-Benz (NAG2V Sport).

MB 236.14 (A 001 989 68 03 10), MB 236.12, MB 236.10

Art. No.: 1211108



RAVENOL ATF M 9-FE Serie

Synthetic ATF for 7-speed automatic transmission 7G-Tronic with ECO Stop-Start function from Mercedes-Benz (NAG2FE+).

MB 236.15, MB A 001 989 78 03, MB A 001 989 77 03, ATF 7134FE, ATF 134FE, ATF 134ME

Art. No.: 1211127



RAVENOL ATF Mercon LV Fluid

Synthetic automatic transmission fluid, specially developed for Ford automatic transmissions.

MERCON® LV (Licence number MLV161101), Ford 1776431, Ford ATF C-ML5, Ford XT-10-QLVC, Ford WSS-M2C938-A, Motorcraft XT-10 DLV, Motorcraft XT-10-QLV

Art. No.: 1211137



RAVENOL DTF-1

Fully synthetic, latest-generation transmission lubricant for electronically controlled active transfer cases.

Land Rover IYK500010, ATF TF-0753, ATF TF-0870, Nissan 999MP-TF0870P, KLD22-00001EU for Transfer Case ATX90A; Porsche 000.043.301.36 Cayenne 9PA/9PA1 955 / 957 (from 2002 to 2010) Transfer Case PL72 T (NV325), 000.043.305.63 Porsche Macan 95B (from 2014) and Cayenne 92A / 958 (petrol engines from 2010 to 2018) Transfer Case Hang-On PL72 ATC; VW G052515A2 (previously: G055515A2) for Transfer Case OAD and OBV for Touareg, Q7; VW G052536A2 for Transfer Case OBU for Touareg, Amarok and Audi Q7; VW G052533A2 for Transfer Case OC7 for Amarok; BMW DTF-1 83222409710, 83222397244, 83220306816 for Transfer Case xDrive: ATC 300, ATC350, ATC400, ATC450, ATC500, ATC700; Genesis (USA) G90 3.3 T-GDI and 5.0 GDI AWD (from construction year 2016); KIA (EU) Stinger 2.2 CRDI and 3.3 T-GDI AWD (from construction year 2017); Mopar 68049954AA for BorgWarner 44-40 transfer gearboxes.

Art. No.: 1211128



RAVENOL ATF M 9-G Serie

Synthetic ATF for the latest generation for all 9-speed automatic transmissions (9G-Tronic) for Mercedes-Benz passenger cars.

MB 236.17

Art. No.: 1211139



RAVENOL ATF 5 / 4 HP Fluid

Synthetic Universal ATF (automatic transmission fluid) for ZF automatic transmissions (4HP and 5HP)

Alfa Romeo 20HP 14891900, ATF LT 71141, ATF LA 2634, BMW 8322 9407765, BMW 8322 9407807, Citroën / Peugeot AL4 PR 9736.22, Jaguar JLM 20237, Land Rover STC4863, Mercedes A 0019892203, Porsche 999.917.547.00, Renault DP0, VW / Audi G052162 A1 / A2 / A6, VW TL 52 162, ZF S671 090 170

Art. No.: 1212104



RAVENOL ATF 6HP Fluid

Synthetic ATF for ZF 6HP series transmissions. Backwards-compatible for 4 and 5-speed passenger car automatic transmissions with the exception of 6HP26A61 in vehicles with AUDI W12 (only original G055162A2 blue) and from 6HP19X for AUDI Q7, 6HP19A, 6HP28AF (only original VW G060162A2 green).

ZF 6HP19, 6HP21, 6HP26, 6HP28, 6HP32, 6HP34, BMW 83220144137, ATF M1375.4, 83220142516, 83222305396 (ATF2), FORD MERCON SP XT-6-QSP (6R60, 6R75, 6R80), Jaguar C2C 8432, Land Rover TYK50 0050, VW / AUDI G 055005 A1 / A2 / A6, ZF S671 090 252 / 3 / 5

Art. No.: 1211112



RAVENOL T-IV-Fluid GM specification: Dexron® II E

Universal ATF (automatic transmission fluid) for TOYOTA and AISIN AW automatic transmissions.

Aisin Warner Automatic Gearbox, BMW 83 22 7 542 290 for MINI 6-Speed Aisin F21, 83 22 0 402 413 for MINI 6-Speed Aisin F21 (USA only), FORD 1327936, WSS-M2C924-A, XT-8QAW, General Motors 9986195, OPEL / GM 1940771,1940774, Land Rover LR002748 6-Speed Aisin F21, RENAULT 7711218368 SU1 Gear, 7711172225 for transmissions SU0 and SU1, TOYOTA JWS 3309, 08886-81016, 00279-000T4, 08886-01705, VOLVO 1161540, VW / AUDI G 055 025 A2, NISSAN 999MP-MTK00P for RE5F22A (Aisin AW55-50SN Nissan Altima, Maxima, Quest, Sentra), Matic K, Mazda K020-W0-049, Suzuki 99000-22800-001, ESSO JWS3317, Land Rover LR022460, Fiat 9.55550-AV1

Art. No.: 1212102



RAVENOL ATF T-WS Lifetime

Synthetic ATF with a special formulation for a twice as long service life, compared to a similar ATF oil.

Aisin Warner AW-1, Aisin Warner Automatic Gearbox from 2008; Aisin TF-80SC (AWF21, AF40-6, AM6, AW6A-EL), TF-81SC (AF21 and AWF-21), TG-81SC (AWF8F35, A881F and GA8F22AW) for MINI Cooper F54, MINI Countryman F60, BMW X1 F48, BMW X2 F39, BMW 2 Gran Tourer F46; BMW 83 22 2 355 599, BMW ATF 6; Chrysler 05189978AA, Chrysler 05189979AA, Chrysler Mopar AS68RC; Fiat 9.55550-AV2; ISUZU 2-90531-200-0, 2-90531-201-0; Land Rover LR022460; Toyota 08886-02305/00289-ATF WS/08886-81210, Toyota / Lexus JWS3324; VOLVO 31256774, VOLVO 31256775, VOLVO 31256776; VW / AUDI transmission OC8 (Touareg 2011-, Q7 2010-), VW G055540A2

Art. No.: 1211106



RAVENOL ATF FZ

Fully synthetic ATF (automatic transmission fluid), specially for Mazda 6-speed transmissions FW6A-EL and FW6AX-EL with SKYACTIV technology.

Mazda ATF FZ, Mazda 0000-FZ-113E-01, Mazda 8300-77-246

Art. No.: 1211130



RAVENOL ATF DSIH 6

Special synthetic PAO-based ATF oil for 6-speed automatic transmission of Drivetrain Systems International Holdings (DSIH) for SsangYong KYRON, ACTYON, ACTYON SPORTS, Geely GC7, GX7, SC7 and EC8.

SsangYong 0578-244021, Caltex 1712, ATF 3292, DSI M11 6-Speed Korando, DSI M78 6-Speed Kyron, Actyon

Art. No.: 1211133



RAVENOL ATF Type J2 / S Fluid

Synthetic ATF for Jatco Renault, Nissan, Mitsubishi transmissions.

Nissan KE908-99932 Matic Fluid J, KLE2300002 Matic Fluid J, 999MP-MTJ00P Matic Fluid J, 999MP-MTS00P Matic Fluid S, KLE24 00002 Matic Fluid S, Mitsubishi MZ 313771 ATF Fluid J2, 4031610 ATF Fluid J3, Renault Matic J6

Art. No.: 1211115



RAVENOL ATF JF405E

Synthetic ATF for use in JATCO 4-speed automatic transmissions JF405E or JF402E for Hyundai, Kia, Nissan, Daewoo, Mazda.

Suzuki 99000-22A80-025, ATF 3314, Hyundai 45000-34D00, 04500-00130, 04500-00430, JWS3314

Art. No.: 1211118



RAVENOL ATF RED-1

Synthetic ATF for use in special 5-speed KIA and Hyundai automatic transmissions.

ATF RED-1, KIA UM040-CH020, 04500-00140, Hyundai 04500-00140

Art. No.: 1211117



RAVENOL ATF SP-IV Fluid

Synthetic ATF for 6-speed Hyundai automatic transmissions from construction year 2009.

6-speed Hyundai automatic transmissions: Hyundai 00232-19045, 04500-00115, Hyundai Elantra UD 2011- L4 1.6L, L4 2.0L, iX35 2009 - L4 2.0L, 2.4L, Santa Fe 2009 - L4 2.0L, 2.2L, 2.4L, V6 3.5L, Sonata 2009- L4 2.0L, 2.4L, V6 3.5L, Tucson 2009- L4 2.0L, 2.4L, Veracruz 2011- V6 3.0, Grandeur HG 2011- V6 3.3L, 3.8L, Azera TG 2011- V6 3.3L, 3.8L, KIA Sorento 2009- V6 3.3L, 3.5L, 3.8L, Sorento XM 2011 - L4 2.4L, V6 3.5L, Sportage 2010- L4 2.0L, 2.4L, Forte / Forte Koup 2010- L4 2.0L, 2.4L, Optima TF 2011- L4 2.0L, 2.4L, Sedona VQ 2011- V6 3.5L

Art. No.: 1211107



RAVENOL ATF SP-IV RR

Special ATF for Hyundai 8-speed automatic transmissions.

Hyundai 00232-19052, Hyundai 04500-00117, Hyundai EQUUS, Hyundai GENESIS, Hyundai GENESIS Coupe, KIA MOHAVE, KIA QUORIS

Art. No.: 1211138



RAVENOL ATF JF506E

Synthetic ATF for use in JATCO 5-speed automatic transmissions JF506E for Ford, Land Rover, VW, Jaguar, Seat.

FORD WSS-M2C922-A1 for Durashift 5F31J, Land Rover LRN402, STC53016, STC50531, Jaguar C2S 12120, ATF Type K17, Type 3100 PL085, N402, VW G052990A2 for 09A and 09B 5-Speed Tiptronic.

Art. No.: 1211119



RAVENOL ATF Matic Fluid Type D

Synthetic ATF for use in 4- and 5-speed Nissan automatic transmissions.

Nissan KLE2200002, KLE2000004, 999MP-MTS00P, KE90899931

Art. No.: 1211121



RAVENOL ATF MM SP-III Fluid

Universal ATF (automatic transmission fluid) for MITSUBISHI, HYUNDAI and KIA automatic transmissions. Can replace SP and SP II fluids.

Mitsubishi 4024610, 4024401, ACH1ZC1X05, MZ320159, MZ320160, MZ320162, MZ320216, ATF SP-III, ATF SP-3, Hyundai 04500-00100, 04500-00400, 04500-00A00, 00232-19012

Art. No.: 1212103



RAVENOL ATF MM-PA Fluid

Synthetic ATF for Mitsubishi V5AWF automatic transmissions.

Mitsubishi V5AWF, 4030401, DIA QUEEN ATF-PA

Art. No.: 1211126



RAVENOL ATF Type Z1 Fluid

Synthetic ATF for all 4- and 5-speed Honda automatic transmissions.

Honda 08266-99904, Honda 08266-99907, Honda 08200-9005

Art. No.: 1211109



RAVENOL ATF DW-1 Fluid

Synthetic ATF for Honda automatic transmissions.

Honda 08200-9008, 08200-9009, Honda 08266-99964, 08266-99967

Art. No.: 1211125



RAVENOL DPS Fluid

Synthetic special fluid with special additives for use in Honda Dual Pump Systems (DPS).

Honda DPFI (DPSF), 08293-99904, DPSF2 Ultra 4WD Rear, 08200-9007

Art. No.: 1211113



RAVENOL SU5 ATF Fluid

Synthetic ATF for use in 5-speed Subaru automatic transmissions.

Subaru 4ATF, 5ATF, ATF HP, Subaru K0415-Y0700, Subaru SOA868V9240, SOA868V9241, SOA427V1500

Art. No.: 1211122



RAVENOL ATF BTR 95LE

Synthetic ATF for BTR Engineering Australia transmissions for SsangYong, FORD, Maserati, Mitsubishi and others.

M74LE, M85LE, M91LE, M95LE, ATF Type TQ95

Art. No.: 1211116



RAVENOL CVTF NS2 / J1 Fluid

Synthetic CVTF (Continuously Variable Transmission Fluid) for JATCO CVT transmissions.

Nissan CVT NS-2 KLE52-0002, KLE52-0004, Mitsubishi S0001401, PSA Standard 9735EF, Suzuki CVT Fluid Green-1 99000-22B15-046

Art. No.: 1211114



RAVENOL CVTF NS3 / J4 Fluid

Synthetic CVTF (Continuously Variable Transmission) based on PAO with special additives and inhibitions.

ATF NS-3; ATF J4; Mitsubishi MZ320261, MZ320262, MZ320288, MZ102658; Nissan KLE53-00004, KLE53-00002, 999MP-NS300P; Suzuki CVT Fluid GREEN 2 9900022B24046, 990N022B24004.

Art. No.: 1211132



RAVENOL ATF PDK Fluid

Fully synthetic ATF with low viscosity and special additives and inhibitions, specially designed for Porsche dual clutch gears.

Porsche PDK, Porsche 000 043 207 29, Porsche Oil No. 999.917.080.00, BMW 8322 2167 666 (MTF LT-5), MB 236.24 (A 002 989 04 03)

Art. No.: 1211131



RAVENOL CVT HCF-2 Fluid

Synthetic CVT (Continuously Variable Transmission) Fluid, specially developed for second-generation CVT transmissions and designed based on high-quality base oils with polyalphaolefins (PAO).

Honda CVT Gen2, Honda 08200-HCF2, Honda 08260-99964, 08260-99967, 08200-HCF2, 08269-99904HE, 08269-99905HE, Honda Accord IX CR 2013-2017, Accord X 2017, Jazz III / Fit GK3/GK4/GK5/GK6 2013- , Grace / Citi GM6/GM9 2014 - , Civic IX FB 2014-2015, Civic X FC1/FK7 2016- , HR-V II 2017- , CR-V IV 2014 - 2016, CR-V V 2018-, Jade FR5 2014- , Odyssey RC1/RC2 2013-, Shuttle GK8/GK9 2015-, Stepwgn RK 2012-2015, Stepwgn RP1/RP2/RP3/RP4 2015-, Vezel RU1/RU2 2012-

Art. No.: 1211142



RAVENOL CVT Fluid

Synthetic automatic transmission lubricant for CVT automatic transmissions.

BMW CVT EZL 799A, Ford EU WSS-M2C928-A, Focus C-Max CFT23, Ford USA WSS-M2C933-A, XT-7-QCFT Freestyle, Five Hundred CFT30, Honda CVT Fluid 08200-9006, HMMF Ultra Fluid 08260-99904, 08260-99907, MB 236.20 A 0019894603, Mazda TFF CVT Fluid TC JWS3320 K020-W0-051W, Nissan CVT Fluid NS-1, KLE50 00002, KLE50 00004, Opel / GM 1940713, Subaru i-CVT Fluid K0415-YA090, Suzuki S-CVT 99000-22801-000, Toyota CVT Fluid TC 08886-02105, VW / AUDI G052180A1 / A2 / A6, TL 52180, VW G 052 516 A2, Mini Cooper CVT

Art. No.: 1211110



RAVENOL CVT KFE Fluid

Synthetic CVT (Continuously Variable Transmission) fluid with low viscosity, designed on the basis of fully synthetic oils (PAO) with special additives and inhibitions.

Toyota 08886-02505, 08886-02503

Art. No.: 1211134



RAVENOL DCT/DSG Transmission Fluid

Synthetic transmission fluid for dual clutch gears.

MB 236.21, VW G 052 182 A2, Audi G 052 529 A2 S-Tronic, BMW DCTF-1, BMW 83220440214, 83222148579, 83222148578, 83222147477, FORD 1490763, FORD 1490761, FORD WSS-M2C936-A, FORD USA XT-11-QDC, FORD WSD-M2C200-D2, Chrysler 68044345 EA, Peugeot/Citroën 9734.S2 for DCS6 (Peugeot 4007, CITROËN C-CROSSER), FIAT 9.55550-MZ6 for TCT (Twin Clutch Transmission) in Alfa Romeo MiTo and Giulietta, Renault EDC (Efficiency Dual Clutch System), VOLVO 1161838, VOLVO 1161839, MITSUBISHI MZ320065, MITSUBISHI Dia-Queen SSTF-I, BOT 341

Art. No.: 1212106



RAVENOL DCT GT-R Fluid

Special transmission fluid for use in dual clutch gears in Nissan GT-R sports vehicles.

Nissan KLD4100002EU, KLD41-00002, 999MP-GTRT00P

Art. No.: 1211129



RAVENOL ATF DCT-F3

Synthetic, high performance dual clutch transmission oil developed for use in 7-speed dual clutch gears GETRAG Powershift 7DCL750, specially for the Daimler specification MB 236.25.

MV 236.25 GETRAG Powershift 7DCL750

Art. No.: 1211135

ATF Standard

Our classic automatic transmission fluids. Tried-and-tested formulations for perfect gear function.



RAVENOL ATF +4® Fluid

GM specification: ATF+4®

Synthetic ATF automatic transmission fluid for Chrysler, Dodge, Plymouth, Jeep and Eagle automatic transmissions. Miscible with all ATF+4®, ATF+2® or ATF+3® transmission fluids.

License no. 40630041 FCA US LLC (previously: Chrysler Group LLC), Mopar 68218054GA (previously: 680474406MA, 68087385EA), 68218058GA (previously: 05013458AA, 05103531EA/05013458GA), 68218057GA (previously: 05013457AA, 05103527EA / 05013457GA) MS-9602, Fiat 9.55550-AV4

Art. No.: 1211100



RAVENOL ATF Fluid Type F

Special transmission oil for Ford, Borg-Wagner, Volvo.

FORD Type M2C-33F / G, Motorcraft XT-1-QF, VOLVO 97330

Art. No.: 1213105



RAVENOL ATF Fluid

GM specification: Type A, Suffix A (TASA)

Mineral automatic transmission fluid (ATF) for hydrostatic and hydrodynamic systems, for which an ATF Type A Suffix A is prescribed. Use in automatic transmissions, turbo coupling, servo coupling and other hydrostatic and hydrodynamic systems.

MB 236.2, MAN 339 Type A, Renk Doromat, Cat. TO-2, Allison C4

Art. No.: 1213101



RAVENOL ATF Dexron D II

GM specification: Dexron® II D

High-quality mineral transmission fluid for automatic transmissions, hydro steering, converters and power transmissions.

MB 236.6, MB 236.7, ZF TE-ML 03D, 04D, 05L,11A, 14A, 17C, VOITH H55.6335.xx, MAN 339 type Z1, Ford SQM-9010B, Ford M2C-138 CJ, 166H, 185A, Cat. TO-2, MERCON, RENK DOROMAT, CVT, Allison C3/C4.

Art. No.: 1213102



RAVENOL ATF DEXRON® VI

GM specification: Dexron®-VI

Synthetic ATF approved by General Motors for use in vehicles with automatic transmissions.

Dexron®-VI licence no. J-60331, GMN 10060, MB 236.41, BMW 83 22 0 397 114, GM1940184, GM93165414

Art. No.: 1211105



RAVENOL ATF MERCON® V

GM specification: MERCON®V

Universal ATF (automatic transmission fluid) for FORD automatic transmissions.

MERCON®V (licence number M5060502), Ford WSS-M2C202-B, Ford XT-5-QMC, XT-5-5QM, XT-5-DMC, Ford 8000045, Ford ATF E-M5, Ford 1565889, Ford 5014519, Ford WSS-M2C-919-E

Art. No.: 1212101



RAVENOL ATF Dexron III H

GM specification: DEXRON® III H, Allison C4

High-quality synthetic Universal ATF (automatic transmission fluid) for automatic transmissions with and without regulated converter lockup clutch for which DEXRON III H transmission fluids are prescribed. Backwards-compatible, can be used when specification ATF Dexron F III is required.

Allison C4-32642009 (ATF III H), Allison TES-389 AA-33072010 (ATF III H), GM Dexron® III H, DEXRON® III F-30140, ZF TE-ML 04D, 14A, 14B, 16L, 16R, 20B, 25B, 05L, 02F, 03D, 17C; Voith 55.6336.3x Extended Drain (G1363), Cat. TO-2; Ford MERCON M-940717; MAN 339 Type V1, MAN 339 Type Z1; MAN 339 Type Z2; MB 236.1, MB 236.5, MB 236.6, MB 236.9, MB 236.10; Nissan; VOLVO Transmission Oil 97341, VOLVO 1161521, 1161621.

Art. No.: 1212100



RAVENOL ATF Dexron II E

GM specification: Dexron® II E

High-quality synthetic ATF (automatic transmission fluid) for automatic transmissions and converter and powershift transmissions.

MB 236.8, MB 236.5, Voith 55.6336.3x Extended Drain (G1363), Allison C4-32652009 (ATF II E), MAN 339 Type Z2, MAN 339 Type V2, ZF TE-ML 04D, 09X, 14B, 16L, Cat. TO-2

Art. No.: 1211103



RAVENOL MULTI ATF HVS FLUID

GM specification: Dexron® III H

High viscosity ATF refill oil covering a wide range of manufacturers, can be used in almost all conventional automatic transmissions with drives if no suitable original oil is available. Not suitable for CVT automatic transmissions.

JASO M315, Class 1A, ATF LT 71141, Aisin AW-1, BMW ATF LA 2634, BMW ATF 4, Hyundai/KIA/Mitsubishi ATF SP-III, Honda/Acura Z-1, JWS 3309, Nissan Matic-D, -J, -K, -W, Mazda M-III, Suzuki 3314/3317, Toyota/Lexus ATF T-IV, VW TL 052 025/052 162/052 990/055 025, and many more.

Art. No.: 1211144



RAVENOL MULTI ATF LVS FLUID

GM specification: Dexron® VI, Mercon SP

Low viscosity ATF with a very wide manufacturer coverage, can be used in almost all conventional automatic transmissions with shift groups if no suitable original oil is available. Not suitable for CVT automatic transmissions.

ATF 3353/134/L12108, BMW ATF M1375.4, ATF L 12108, ATF 6, ATF-3+, Ford Mercon SP, Honda/Acura DW-1, Hyundai/Kia SP-IV, Mazda FZ, MB 236.12, 236.14, 236.15, 236.17, Mitsubishi DIA QUEEN ATF-PA, ATF Fluid J3, Nissan, Matic Fluid S, Toyota/Lexus ATF WS, ZF-LifeguardFluid 6/8/9, VW TL 60 162/55 540/52 533/55 005, and many more

Art. No.: 1211145

ATF transmission oils for commercial vehicles

Gear oil for manual gearboxes – Professional Line

The gear oils for manual gearboxes in the Professional Line product range are fully synthetic gear oils that can be used in a wide range of vehicles due to their sophisticated additives.



RAVENOL ATF ZMS

The latest generation of ATFs for commercial vehicle automatic transmissions from ZF support oil change intervals of up to 150,000km or max. 3 years.

MAN 339 Type Z3, MAN 339 Type Z4 (ZF Ecomat 150 000 km), ZF TE-ML 04D, 14E, 16N, 16Q, 20F, ZF 0671 072 120, ZF 0671 072 130

Art. No.: 1211102



RAVENOL LKW ATF Synthetik

Synthetic ATF, specially designed for the latest generation of commercial vehicle automatic transmissions.

Synthetic ATF, specially designed for the latest generation of commercial vehicle automatic transmissions.

Art. No.: 1211104



RAVENOL ATF T-ULV Fluid

Fully synthetic ATF (automatic transmission fluid), designed based on high-quality polyalphaolefins (PAO) and esters with special additives. ATF with extremely low viscosity.

ATF AW-2, BMW ATF 7, BMW 83 22 2 413 477 (8-Speed Automatic Transmission BMW GA8G45AW), PSA 16 350 560 80 (8-Speed Automatic Transmission PSA AMN8/ATN8/AXN8), Volvo 31492172/31492173 (8-Speed Automatic Transmission AWF8G45/AWF8G55), VW G 053 001 A2 (8-Speed Automatic Transmission VW 09S (AQ300-8F))

Art. No.: 1211146



RAVENOL MTF-1

SAE 75W-85 | API GL-4 / GL-5

Fully synthetic, low friction PAO-based gear oil for special manual, transfer and differential gearboxes.

General Motors 1940182, 93740319, Hyundai 04300-00110, 04300-00140, 08950-00020-B, 08950-00020-A, MB 235.7 A 001 989 33 03, MB 235.4 A 001 989 14, OPEL B 040 2071 03, Mitsubishi 3717610, MTF BOT 402, BOT 0063 for F35 / MU3 5-speed SAAB / GM / Opel, Nissan KLD26-75802, KE91699931, KE91699942, 999MP-MTF00P, TOYOTA 08885-02606, 08885-81070, 08885-81060

Art. No.: 1221102



RAVENOL MTF-2

SAE 75W-80 | API GL-4 / MT-1

Fully synthetic, low friction PAO-based gear oil for modern manual gearboxes.

AC Delco 10-403; General Motors 1940711, 88861800, 88861801; BMW 2300 7533 513 MTF LT-2, 83 22 0 309 031 / 2300 1434 404 MTF LT-1; FIAT 9.55550-MZ2 F178, B06 14621616; FORD WSS-M2C200-D2 WSS-M2C200-C3 1547953 1382914; Honda 08261-99964 Genuine MTF Fluid 08798-9031 MTF-7289; Hyundai 02200-00130 TOD; Land Rover STC 9157 TYK500030 STC 9158; MB 235.10 A 001 989 26 03, Mitsubishi MZ312644 3005401; MTF-94 Fluid for Land Rover, MG and Mini Cooper; Nissan 999MP-MTF20P KE91699932R; Peugeot 9730A2; Subaru K0321-F0090; TOYOTA 08885-00705, MTF XT4447 M+, MTF ETL8997B, MTF 97309; PSA B 71 2330; VOLVO 1161681 1161745; VW/AUDI G 052 911 A2, G 055 538 A2 for ZF 6S450 Amarak 0C6; AUDI G 052 532 and G 055 532

Art. No.: 1221103



RAVENOL MTF-3

SAE 75W

Fully synthetic, low friction engine oil for special manual gearboxes.

ACDelco 10-4037; BMW MTF LT-3 23 00 7 533 818, 83 22 0 396 706, 83 22 7 533 818; BOT303; BOT 350 M3; Fiat 9.55550-MZ6; FORD WSS-M2C200-D2; GM 19259104, 1940004; JWS2271; Mercedes A001989840309, MB 235.10; Opel B0402167; PSA Standard 9730A8; TOYOTA 08885-81001, TOYOTA 08885-81081; Suzuki 99000-22B27-036; VW G 009 317 A2, G 052 512 A2, G 052 527, G 052 171 A2, G 052 527 A2, G 055 532 A2, G 070 726 A2; VW/AUDI G 060 726 A2; VOLVO 1161839, VOLVO 1161838.

Art. No.: 1221104

Gear oils for manual gearboxes and drive axles

Our classic oils to lubricate manual gearboxes, drive axles and a wide variety of transmissions, including limited slip. Special combinations of active substances guarantee that the aggregates work perfectly.



Lubricants for vehicle transmissions must have properties that can usually only be achieved using additional active substances. Today, high-quality multigrade engine oils are already capable of withstanding pressure loads to such an extent that they are recommended by vehicle manufacturers in some cases, for example in manual gearboxes. Gear oils are sold as single grade and multigrade oils. The modern 5- and 6-speed gearboxes in particular require wide-range multigrade oils, the SAE range is then either 75W-90 or 80W-90. For the hypoid drive axles, viscosities of SAE 75W to 85W-140 are prescribed.

SAE viscosity classes in accordance with SAE J306

SAE grade	Min. temperature at dynamic viscosity	Kinematic viscosity at 100 °C, mm ² /s	
	150 Pa·s, °C	Min	Max
Winter			
70W	-55	4.1	-
75W	-40	4.1	-
80W	-26	7.0	11.0
85W	-12	11.0	13.5
Summer			
90	-	13.5	18.5.0
120	-	18.5	24.0
140	-	24.0	32.5
190	-	32.5	41.0
250	-	41.0	-

Requirements:

- Lubrication, shear stability of the lubricant, reliable protection against wear for drive components as well as seals, anti-foaming behaviour, temperature control, corrosion protection, load-bearing capacity, anti-pitting, dispersing capacity, lack of sensitivity with regard to seals and metals, miscibility with other lubricants.
- Shifting and synchronisation performance
- Avoidance of noise during idle time and operation, low-noise operation at high and low temperatures, revolutions and loads.
- Extension of the change intervals for lubricants means increasing requirements for the oils, i.e. consistent functionality over the entire period of use, high thermal and oxidative stability for longer usage options and optimised friction conditions to reduce energy losses.
- Cold start: Wear-free starts at low temperatures.

In addition to the factory standards of the relevant automotive industry, the guidelines for gear oils of the American Petroleum Institute (API) are decisive. However, the API classifications can only provide rough categorisation, as the requirements for modern gear oils are very complex.

API CLASSIFICATION FOR GEAR OILS FOR MANUAL TRANSMISSION IN PASSENGER CARS

GL-1	Inactive ¹⁾ : designates the type of service characteristic of manual transmissions operating under such mild conditions of low unit pressures and minimum sliding velocities, that untreated oil may be used satisfactorily. Oxidation and rust inhibitors, defoamers and pour depressants may be used to improve the characteristics of lubricants intended for this service. Friction modifiers and extreme pressure additives shall not be used.
GL-2	Inactive ¹⁾ : designates the type of service characteristic of automotive type worm-gear axles operating under such conditions of load, temperature and sliding velocities, that lubricants satisfactory for API GL-1 service will not suffice.
GL-3	Inactive ¹⁾ : designates the type of service characteristic of manual transmissions and spiral-bevel axles operating under mild to moderate to severe conditions of speed and load. These service conditions require a lubricant having load-carrying capacities greater than those that will satisfy APL GL-1 service, but below the requirements of lubricants satisfying the API GL-4 service.
GL-4	Designates the type of service characteristic of spiral-bevel and hypoid gears in automotive axles operated under moderate speeds and loads. These oils may be used in selected manual transmission and transaxle applications.
GL-5	Designates the type of service characteristic of gears, particularly hypoids in automotive axles under high-speed and/or low-speed, high-torque conditions. Lubricants qualified under U.S. Military specification MIL-L-2105D (formerly MIL-L-2015C), MIL-PRF-2105E and SAE J2360 satisfy the requirements of the API GL-5 service designation.
GL-6	Inactive ¹⁾ : designates the type of service characteristic of gears designed with a very high pinion offset. Such designs typically require (gear) score protection in excess of that provided by API GL-5 gear oils. The original API GL-6 test equipment is obsolete.
MT-1	designates lubricants intended for non-synchronized manual transmissions used in buses and heavy-duty trucks. Lubricants meeting API MT-1 provide protection against the combination of thermal degradation, component wear, and oil seal deterioration which is not provided by lubricants meeting only the requirements of API GL-4 and API GL-5.

¹⁾ API Categories GL-1, GL-2, GL-3 and GL-6 were declared inactive by SAE Technical Committee 3 in 1995, even though oils may be marketed with these designations. Similarly, ASTM does not plan to maintain the performance tests associated with these categories, as in a number of cases these tests can no longer be run because parts or test installations are not available

To ensure the function of the transmission over the entire duration of use requires special gear for the respective assemblies. So gear oils today are included as a design element in the development.



RAVENOL MDL Multi-Disc locking differentials

Synthetic lubricating oil for multi-disc locking differentials.

AcDelco 10-4032, Daimler A 0019895903 für Mercedes-Benz M-Klasse (W164, X164) GM 92184900, Land Rover LR019727, BOT 720, TYK500070, Porsche 000.043.300.37 for Porsche Cayenne, Porsche Panamera, VW G052196A2 for VW Touareg

Art. No.: 1222103



RAVENOL STF Synchronmesh Transmission Fluid

Synthetic manual gear oil for GM and Chrysler manual gearboxes and transfer cases.

Chrysler MS-9417, MS-9224, 4874465, 4874464, General Motors 12345349, 9985648, 1052931, 12377916, 9985535, 12345577, 9986105

Art. No.: 1221105



RAVENOL Truck MTF-50

Fully synthetic, heavy duty manual gear oil for the requirement without high pressure (EP) additives.

API MT-1, EATON PS-164 Rev. 7, MACK TO-A PLUS, International TMS-6816, ZF FreedomLine, TE-ML 02L, ArvinMeritor 0-81

Art. No.: 1221106



RAVENOL Teilsynthetisches Getriebeöl TSG

SAE 75W-90 | API GL-4

Semi synthetic multi-purpose gear oil for manual gearboxes subject to heavy strain with and without synchronisation, transfer and steering gears for motor vehicles and machinery.

Ford M2C-175; GM Opel B 040 104 3; VW 501 50, VW G052 911 A2

Art. No.: 1222101



RAVENOL TGO Teilsynthetisches Getriebeöl

SAE 75W-90 | API GL-5 | MIL-L-2105D

Semi synthetic gear oil specially for hypoid toothed transmissions subject to heavy strain.

MB 235.0, MB 235.1, MB 235.8, MAN 342 M2 (160,000 km), ZF TE-ML 05A, 07A, 16B/C/D, 17B, 19B, 21A, CS 3000B, Ford M2C-9002A, Mack GO-G, GM

Art. No.: 1222105



RAVENOL PSA SAE 75W-80 | API GL-4

Semi synthetic multigrade gear oil for Citroen and Peugeot cars.

PSA Standard B 71 2315

Art. No.: 1222100



RAVENOL VSG

SAE 75W-90 | API GL-5 / GL-4 | MIL-L-2105D

Fully synthetic high performance universal gear oil for use in axle drives which are subject to heavy strain.

BMW 83229407768, BMW 83222365987, BMW OSP, BMW SAF-XO; BOT 328, 130M, 720; DAF LKW (for extended intervals); Ford WSD-M2C200-C, Ford 1045737, Ford 5021033 for Ford transmissions IB5, B5, MTX75, GM5, MT285/6, MT6/6, MT75, R15M-D, R15MX-D, MT82; IVECO; Land Rover TYK500010; MAN 342 Typ S1; MB 235.8, MB 235.11; MIL-L 2105 D; Porsche 958.341.536.00 (Full-Time Transfer Case with Torsen for Cayenne 92A / 958 Diesel and S Hybrid from 2010 to 2018); Renault LKW; SCANIA STO 1:0; VOLVO 97312 / 97315; VW G052 145 A2; VW G052 539 A2, VW G052 911 A2; ZF TE-ML 12B, 16F, 17B.

Art. No.: 1221101



RAVENOL SSG Spec Synt LKW Getriebeöl

SAE 75W-80 | API GL-4 | MIL-L-2105D

Synthetic low friction gear oil specially for manual gearboxes which are subject to heavy strain. For supplying synchronised commercial vehicle manual gearboxes with intertarders or retarders. Extreme oil change intervals up to 500,000 km.

ZF TE-ML 01L, 02L, 16K, MAN 341 Type Z4, MAN 341 Type E3, MAN 341 Type V-R, DAF / VOLVO 97305, 97307, EATON (Extended drain) / IVECO / RENAULT

Art. No.: 1221100



RAVENOL Getriebeöl SLG

SAE 80W-90 | API GL-3/ GL-4/GL-5/ MT-1 | MIL-L-2105 A/B/C/D/E, MIL-PRF-2105E

High performance, multi-function gear oil for universal supply of commercial vehicle manual gearboxes, auxiliary drives, including hypoid toothed drive axles which are subject to heavy strain.

DAF, MAN 341 Type Z2/E2, MAN 342 Type M2, SCANIA STO 1:0, ZF TE-ML 02B, 05A, 12E, 16B, 16 C, 16 D, 17B,19B, 21A, MB 235.0, Mack GO-J, Iveco

Art. No.: 1223305



RAVENOL TDG

SAE 75W-110 | API GL-4, GL-5, MT-1 | MIL-L-2105D, MIL-PRF-2105E

Universal fully synthetic gear oil for manual gearboxes and rear axles of passenger cars and light and heavy goods vehicles. "Total Drive Line" Oil for a wide range of applications.

ZF TE-ML 05A, 05B, 07A, 08, 12N, 16F, 19C, 21A(ZF001438), 21B, SAE J23260, MACK GO-J, DAF, Meets the requirements of Scania STO 1:0

Art. No.: 1221109



RAVENOL DGL

SAE 75W-85 | API GL-5+ LS | MIL-L-2105D

Fully synthetic multigrade hypoid gear oil from the API GL-5 performance class for transfer cases and differentials with and without passenger car limited slip.

Toyota 08885-8081, Toyota JWS 2273, BMW, Dodge, Jeep, Lexus, AC Delco 10-4032, BOT 448, BMW 83 22 2 239 982, BMW 83 22 2 295 532, BMW Hypoid Axle Oil G1, Chrysler ELSD Rear Axle, FIAT 9.55550 F426.E06, Fiat 9.55550-DA8, -DA9, GM 92184900, Land Rover LR052059, Mercedes Benz MB 235.7 A0019898303, MB 235.74 A0019893303, MB 239.71, Mopar 68083381AA, ZF TE-ML 18, VW TL 521 90, G052 196 A2, G052 190 A2, G055 190 A2.

Art. No.: 1221107



RAVENOL Getriebeöl LS

SAE 75W-90 | API GL-5+ LS | MIL-L-2105D

Synthetic gear oil for limited slip differentials. Even for self-blocking, hypoid toothed transmissions.

ZF TE-ML 05C/D, GM 1940058 / GM 93165388, GM 88862624 / GM 88862625

Art. No.: 1222102



**RAVENOL
Getriebeöl SLS**

SAE 75W-140 | API GL-5+ LS | MIL-L-2105D

Synthetic multigrade hypoid gear oil for rear axle and differential transmissions with "limited slip" requirement.

Limited Slip

Art. No.: 1221110



RAVENOL SGO

SAE 80W-140 | API GL-5 / MT-1 | MIL-L-2105D

Synthetic gear oil specially developed for hypoid toothed transmissions subject to heavy strain on the basis of high-quality synthetic base oils with a balanced with of active substance additives.

MACK GO-J, SAE J2360, Scania STO 1:0, ZF TE-ML 05A, 7A, 12E, 16C, 16D, 21A

Art. No.: 1222201



**RAVENOL Sperrdiff.
Hypoid Getriebeöl LS**

SAE 85W-90 | API GL-5+ LS | MIL-L-2105D

Mineral gear oil for differential lock and limited slip.

ZF TE-ML 05C, 12C, 16E, 21C, Ford Specification, Limited Slip

Art. No.: 1223301



**RAVENOL
Getriebeöl EPX**

SAE 85W-90 | API GL-5 | MIL-L-2105D

Mineral multigrade gear oil for synchronised and non-synchronised manual gearboxes as well as for axle, transfer cases and intermediate transmissions, auxiliary transmissions in vehicles and machinery.

ZF TE-ML 05A, 16B, 17B, 19B, MAN 342 Typ M1, MB 235.0, Ford SQM-2C-9002 AA

Art. No.: 1223206



**RAVENOL
Getriebeöl EPX**

SAE 85W-140 | API GL-5 | MIL-L-2105D

Mineral multigrade gear oil for synchronised and non-synchronised manual gearboxes as well as for axle, transfer cases and intermediate transmissions, auxiliary transmissions in vehicles and machinery.

ZF TE-ML 05A, 16D, 21A, Ford M2C-9002A, MAN 342 Type M1, CS 3000B, Mack GO-G, GM

Art. No.: 1223211



**RAVENOL
Getriebeöl EPX**

SAE 140 | API GL-4/GL-5 | MIL-L-2105D

Mineral gear oil for synchronised and non-synchronised manual gearboxes as well as for axle, transfer cases and intermediate transmissions, auxiliary transmissions in vehicles and machinery.

ZF TE-ML 05A, 07A, 17B, CS 3000B, Ford M2C-9002A, Mack GO-G, GM

Art. No.: 1223210



**RAVENOL Sperrdiff.
Hypoid Getriebeöl LS**

SAE 90 | API GL-5 + LS | MIL-L-2105D

Mineral gear oil for differential lock and limited slip.

ZF TE-ML 05C, 12C, 16E, 21C, Ford Specification, Limited Slip

Art. No.: 1223302



**RAVENOL
Getriebeöl EPX**

SAE 80, SAE 90 | API GL-5 | MIL-L-2105D

Mineral gear oil for synchronised and non-synchronised manual gearboxes as well as for axle, transfer cases and intermediate transmissions, auxiliary transmissions in vehicles and machinery.

MB 235.0, MAN 342 Type M1, ZF TE-ML 05A, 07A, 16B, 16C, 16D, 17B, Ford SQM-2C-9002AA

Art. No.: 1223201 SAE 80
Art.-No.: 1223202 SAE 90



**RAVENOL
Getriebeöl EPX**

SAE 80W-90 | API GL-5 | MIL-L-2105D

Mineral multigrade gear oil for synchronised and non-synchronised manual gearboxes as well as for axle, transfer cases and intermediate transmissions, auxiliary transmissions in vehicles and machinery.

ZF TE-ML 16B, 17B, 19B, 21A, LOVAT LOV-204, MB 235.0, MAN 342 Type M1, Ford SQM-2C-9002 AA

Art. No.: 1223205



**RAVENOL
Getriebeöl MZG**

SAE 80 | API GL-4 | MIL-L-2105D

Mineral EP multi-purpose gear oil to lubricate manual gearboxes, transfer cases, steering gears as well as axle drives subject to normal strain.

MAN 341 Type Z1, MAN 341 Type E1, ZF TE-ML 02A, 17A, MB 235.1, Ford SQM-2C-9008A

Art. No.: 1223101



**RAVENOL
Getriebeöl MZG**

SAE 80W-90 | API GL-4 | MIL-L-2105D

Mineral EP multi-purpose gear oil to lubricate manual gearboxes, transfer cases, steering gears as well as axle drives subject to normal strain.

MAN 341 Type Z1, MAN 341 Type E1, ZF TE-ML 02B, 16A, 17A, 19A, MB 235.1, Ford SQM-2C-9008A

Art. No.: 1223105



**RAVENOL
Getriebeöl MZG**

SAE 90 | API GL-4 | MIL-L-2105D

Mineral EP multi-purpose gear oil to lubricate manual gearboxes, transfer cases, steering gears as well as axle drives subject to normal strain.

MAN 341 Type Z1, MAN 341 Type E1, ZF TE-ML 02B, 16A, 17A, 19A, MB 235.1, Ford SQM-2C-9008A

Art. No.: 1223102

Power steering and special hydraulic oils

RAVENOL special hydraulic oils are used in the hydraulics of vehicles made by various manufacturers, such as level regulation, hydropneumatic suspension, steering systems, dampers, etc. according to the prescribed specifications of the aggregate or vehicle manufacturer. The special formulations guarantee outstanding performance in cold conditions and are therefore particularly suitable for use in cold countries.



RAVENOL AWD-H Fluid

Special high-performance gear oil for Haldex all-wheel, Quattro- and 4motion drives.

VW G 052 175 A2, G 055 175 A2, G 060 175 A2, Volvo 31367940, GM 93165387, Opel 1940057, Land Rover LR 054941, LR 003136 (Haldex oil construction years 2011-2014)

Art. No.: 1211140



RAVENOL AWD-TOR Fluid

Special gear oil for transfer cases in all-wheel drive system of the Torsen variety from VW and Audi. The formulation contains 4% of a specific friction modifier.

Audi/VW G 055145 A2; SAF-AG4 + FM

Art. No.: 1211141



RAVENOL GHA-F Gearbox Hydraulic Actuator Fluid

Special hydraulic oil based on synthetic oil and mineral oil with ash-free additives. It is used in electronically controlled MCP gearboxes from Peugeot/Citroën and in Dualogic and Selespeed gearboxes from FIAT/Alfa Romeo and thus has optimum performance characteristics as a special hydraulic oil in electro-hydraulic and electronically controlled drives and gears.

Peugeot/Citroën 9979.A4 for MCP Automated Gearbox, FIAT/Alfa Romeo 15081616 CS SPEED for Dualogic and Selespeed Gearbox, FIAT 9.55550-SA1 Nr. F005.F98

Art. No.: 1181201



RAVENOL E-PSF Fluid

Special fully synthetic fluid for electro-hydraulic power steering.

Citroën DA 9730 A5, LDS 9979 A3; Fiat 9.55550-AG3; JTEKT EHPS Electro-Hydraulic Power Steering MAN M3289; Nissan E-PSF, 999MP-EPSF00P, KLF51-00001; PSA S71 2710; Renault PSF Class 1 (Renault Laguna III); Toyota PSF-EH, 08886-01206.

Art. No.: 1181002



RAVENOL PSF-Y Fluid

Synthetic special fluid for use in Volkswagen, Mercedes and Chrysler power steering.

VW G009300A2, Mercedes A0009898803, MB 236.3, Chrysler 05098158A, MS-5931, MS-9933, MS-10838, 04883077, GM 9985010, 89020661, 1050017, Mopar 05142893AA, Texaco TL 4634, HONDA 08206-9002, 08285-P99-01Z-T1

Art. No.: 1211123



RAVENOL SSF Special Servolenkung Fluid

API ISO 7308 | DIN 51 524 Part 2

Special hydraulic oil for use as a central hydraulic oil in power steering, level regulation, hydraulic brake boosters, hydropneumatic suspension. For VW, Audi, Seat, Skoda.

VW TL 521 46 (G002 000, G004 000 M2), MB 343.0 / MB 344.0 / MB 345.0, CHF11S, CHF202, Opel 1940 715, Opel 1940 766, Ford M2C204-A2, Ford 1 384 110, ZF TE-ML 02K, SAAB 93160548, BMW 83 29 0 429 576, Citroën 9979 A1, Land Rover Cold Climate PAS Fluid 14315 LRN2261, VOLVO 30741424, Hyundai/Kia PSF-4 03100-00130, Toyota PSF NEW-W, Toyota 08886-01115

Art. No.: 1181100



RAVENOL LHM+ Fluid

API ISO 7308 | DIN 51 524 Part 2

Special hydraulic fluid, developed for use in PSA Group vehicles (Citroën, Peugeot).

PSA Standard B 71 2710

Art. No.: 1181110



RAVENOL Hydraulik PSF Fluid

Special synthetic hydraulic liquid for power steering.

Honda PSF-S, Hyundai PSF-3, KIA PSF-III, Mazda PSF, Subaru PS Fluid, TOYOTA PSF-EH, CITROËN/PEUGEOT 9735EJ for C-Crosser and PEUGEOT 4007, MITSUBISHI DIAMOND PSF-2M

Art. No.: 1181000

Hydraulic oils

The most frequently used hydraulic fluids (pressure fluids) are manufactured using a mineral oil-based formulation with the corresponding additives. They are also referred to as hydraulic oils. The requirements for these hydraulic oils are stipulated in ISO 6743/4 with the label HL, HM, HV. In Germany, the designations H, HL, HLP, HVLP according to DIN 51 524 are generally used.

H: with no active substances, corresponding to lubricants according to DIN 51 517. Today, these hydraulic oils are barely still in use.

HL: with active substances to increase the corrosion protection and resistance to ageing (also HL according to DIN 51 524 Part 1). They are used at pressures of up to 200 bar and sufficient for ordinary thermal strain.

HLP: with active substances to increase the corrosion protection, ageing resistance and to reduce seizure wear in the mixed friction area (according to DIN 51 524, Part 2).

HVLP: with active substances to increase the corrosion protection, ageing resistance and to reduce seizure wear in the mixed friction area and to improve the viscosity-temperature behaviour (according to DIN 51 524, Part 3).

HLPD: with active ingredients to increase the corrosion protection, ageing resistance and detergent additives (German description, not subject to norms).



RAVENOL Hydrauliköl TS

ISO VG 10 | HLP | DIN 51 524 Part 2, ISO 6743-4 HM

Mineral hydraulic oil. Wide range of industrial applications.

Vickers Pump Test, FZG test A 8.3/90: The 12th load level is safely reached, VDMA 24318, ASTM D6158, ISO 11158 HM, SAE MS1004 Type HM MIL-H 24 459, AFNOR NFE 48 603 (HM), DENISON HF-2 and HF-0, Cincinnati Milacron P-68, 69, 70, Bosch Rexroth RE 90220, CETOP RP 91H HM, Danieli Hydraulics, Metso, Sauer-Danfoss 520L0463

Art. No.: 1323101



RAVENOL Hydrauliköl TS

ISO VG 15 | HLP | DIN 51 524 Part 2, ISO 6743-4 HM

Mineral hydraulic oil. Wide range of industrial applications.

Vickers Pump Test, FZG test A 8.3/90: The 12th load level is safely reached, VDMA 24318, ASTM D6158, ISO 11158 HM, SAE MS1004 Typ HM MIL-H 24 459, AFNOR NFE 48 603 (HM), GB 11118.1 L-HL, Swedish Standard SS 155434, DENISON HF-2 und HF-0, Cincinnati Milacron P-68, 69, 70, Bosch Rexroth RE 90220, CETOP RP 91H HM, Danieli Hydraulics, Metso, Sauer-Danfoss 520L0463

Art. No.: 1323102



RAVENOL Hydrauliköl TS

ISO VG 22 | HLP | DIN 51 524 Part 2, ISO 6743-4 HM

Mineral hydraulic oil. Wide range of industrial applications.

AFNOR NFE 48 603 (HM); ASTM D6158; Bosch Rexroth RE 90220; CETOP RP 91H HM; Cincinnati Milacron P-68, 69, 70; Danieli Hydraulics; DENISON HF-2 and HF-0; FZG-Test A 8,3/90: The 12th load level is safely reached; GB 11118.1 L-HL; ISO 11158 HM; Metso; MIL-H 24 459; SAE MS1004 Typ HM; Sauer-Danfoss 520L0463; Swedish Standard SS 155434; VDMA 24318; Vickers Pump Test

Art. No.: 1323103



RAVENOL Hydrauliköl TS

ISO VG 32 | HLP | DIN 51 524 Part 2, ISO 6743-4 HM

Mineral hydraulic oil. Wide range of industrial applications.

Vickers Pump Test, FZG test A 8.3/90: The 12th load level is safely reached, AFNOR NF E 48-603 HM, ASTM D6158, GB 11118.1 L-HM (conventional), ISO 11158 HM, JCMAS HK, MIL-PRF-17672E, SAE MS1004 HM, SEB 181 222, US Steel 126, 127, 136, VDMA 24318, Arburg, Atos, Bosch Rexroth RE 90220, CETOP RP 91H HM, Danieli Hydraulics, Denison HF-0, HF-1, HF-2, Eaton Vickers I-286-S, M-2950-S, Fives Cincinnati P-38/P-68, General Motors LH-02-1-04, LS-2, Metso, Müller Weingarten, Sauer-Danfoss 520L0463

Art. No.: 1323104



RAVENOL Hydrauliköl TS

ISO VG 46 | HLP | DIN 51 524 Part 2, ISO 6743-4 HM

Mineral hydraulic oil. Wide range of industrial applications.

Vickers Pump Test, FZG test A 8.3/90: The 12th load level is safely reached, AFNOR NF E 48-603 HM, ASTM D6158, GB 11118.1 L-HM (conventional), ISO 11158 HM, JCMAS HK, MIL-PRF-17672E, NATO H-573, SAE MS1004 HM, SEB 181 222, US Steel 126/127/136, VDMA 24318, Arburg, Atos, Bosch Rexroth RE 90220, CETOP RP 91H HM, Danieli Hydraulics, Denison HF-0, HF-1, HF-2, Eaton Vickers I-286-S, M-2950-S, Fives Cincinnati P-55, P-70, General Motors LH-02-1-04, LS-2, Metso, Müller Weingarten, Sauer-Danfoss 520L0463, ZF TE-ML 07H

Art. No.: 1323105



RAVENOL Hydrauliköl TS

ISO VG 68 | HLP | DIN 51 524 Part 2, ISO 6743-4 HM

Universal HLP hydraulic oil. Broad area of application within the entire industry.

Vickers Pump Test, FZG test A 8.3/90: The 12th load level is safely reached AFNOR NF E 48-603 HM, ASTM D6158, GB 11118.1 L-HM (conventional), ISO 11158 HM, MIL-PRF-17672E, SAE MS1004 HM, SEB 181 222, Swedish Standard SS 155434, US Steel 126, 127, 136, VDMA 24318, Atos, Bosch Rexroth RE 90220, CETOP RP 91H HM, Danieli Hydraulics, Denison HF-0, HF-1, HF-2, Eaton Vickers I-286-S, M-2950-S, Fives Cincinnati P-55, P-70, General Motors LH-02-1-04, LS-2, Metso, Müller Weingarten, Sauer-Danfoss 520L0463, ZF TE-ML 07H, SIS SS 155434, Hoesch HWN 2333

Art. No.: 1323106



RAVENOL Hydrauliköl TS

ISO VG 100 | HLP | DIN 51 524 Part 2, ISO 6743-4 HM

Universal HLP hydraulic oil. Broad area of application within the entire industry.

Eickhoff mining technology, Vickers Pump Test, FZG test A 8.3/90: The 12th load level is safely reached, AFNOR NF E 48-603 HM, ASTM D6158, GB 11118.1 L-HM (conventional), ISO 11158 HM, SAE MS1004 HM, SEB 181 222, Swedish Standard SS 155434, VDMA 24318, Bosch Rexroth RE 90220, CETOP RP 91H HM, Danieli Hydraulics, Denison HF-0, HF-1, HF-2, Sauer-Danfoss 520L0463

Art. No.: 1323107



RAVENOL Hydrauliköl TSX

HVLP | DIN 51 524 Part 3

High-quality mineral hydraulic oil of HVLP type based on specially selected solvent refined base oils. Excellent for heavily loaded hydraulic systems in industry, for earth-moving machinery and for agricultural machinery.

ISO 6743-4-HV; 15: AFNOR NFE 48-603 HV, AFNOR NFE 48-690/1; Bosch Rexroth RE90220; GB 11118.1 L-HV; CETOP RP 91H HV; ISO 11158 HV; SAE MS1004; Sauer-Danfoss 520L0463; 32: AFNOR NFE 48-603 HV, AFNOR NFE 48-690/1; CETOP RP 91H HV; GB 11118.1 L-HV; ISO 11158 HV, ISO 6743-4 HV; JCMAS HK VG32W; SAE MS1004; US Steel 127/136; Bosch Rexroth RE90220; Denison HF-0/HF-1/HF-2; Eaton Vickers I-286-S/M-2950-S; Fives Cincinnati P-68; General Motors LH-03-1-04/LS-2; Sauer-Danfoss 520L0463; 22, 46, 68, 100: AFNOR 48 603 HV; CETOP RP 91H-HV; DENISON HF-0, HF-1, HF-2; FZG 12; General Motors LH-04-1, LH-06-1, LH-15-1; Sperry Vickers 1-286-S, M-2950-S; US Steel 127, 136

Art. No.: 1323202 ISO VG 15 Art. No.: 1323204 ISO VG 32 Art. No.: 1323206 ISO VG 68
 Art. No.: 1323203 ISO VG 22 Art. No.: 1323205 ISO VG 46 Art. No.: 1323207 ISO VG 100



RAVENOL Hydrauliköl HVLP-D

HVLP-D | DIN 51 524 Part 3

Detergent hydraulic oil with high viscosity index (type HVLP-D) for use in a wide temperature range for heavily loaded hydraulic systems of agricultural, forestry and construction machinery as well as stationary hydraulic systems.

32: AFNOR 48-603, AFNOR 48-690/1; CETOP RP 91H (HV); ISO 11158 HV, ISO 6743-4 46, 68: CETOP RP 91H-HV, General Motors LH-04-1, General Motors LH-06-1, General Motors LH-15-1, ISO 6743/4-HV, DENISON HF-1, HF-0, HF-2, Sperry Vickers M-2950-S, Sperry Vickers 1-286-S, AFNOR 48 603 HV, US Steel 136

Art. No.: 1323364 ISO VG 32
 Art. No.: 1323365 ISO VG 46
 Art. No.: 1323366 ISO VG 68



RAVENOL Hydrauliköl HLP-D

HLPD | DIN 51 524 Part 2

HLPD hydraulic oil for use in agriculture, construction machinery, cement factories, foundries, electric multi-disc clutches, as function test oil, as breaking-in oil for aggregates and machines, in textile machines and in machine tools. HLP-D 32 is zinc- and ash free.

MAN N 698, DENISON HF-0, Daimler DBL 6721; 32 also: AFNOR NF E 48-603 HM; ASTM D6158; DIN 51524-2 HM (exceeds the requirements of HLP hydraulic oils); ISO 11158 HM, ISO 6743-4 HM; JCMAS HK; SAE MS1004 HM; SEB 181 222; US Steel 127/136; VDMA 24318

Art. No.: 1323303 ISO VG 22 Art. No.: 1323305 ISO VG 46
 Art. No.: 1323304 ISO VG 32 Art. No.: 1323306 ISO VG 68



RAVENOL Hydrauliköl TS AF

HLP | DIN 51 524 Part 2

High-quality zinc and ash-free, alloyed sulphur/phosphorus-based hydraulic oil, specially designed for use in the metal industry.

32: DIN 51 524-2, AFNOR NF E 48-603 HM, ASTM D6158, GB 11118.1 L-HM, ISO 11158/6743-4 HM, SAE MS1004 HM, US Steel 127/136; Denison HF-0, HF-1, HF-2; Eaton Vickers I-286-S, M-2950-S; Fives Cincinnati P-38, P-68; FZG-Test A 8,3/90 The 12th load level is safely reached; GM LH-03-1-04; MAN N 698; Müller Weingarten; SEB 181.222, 181.226; Thyssen TH-N256-142; Timken-Test according to DIN E 51434; Vickers Pump Test; 46, 68: SEB 181.222, 181.226, Vickers pump test, Timken test according to DIN E 51434, MAN N 698, FZG-Test A 8.3/90: 12th load level

Art. No.: 1323124 ISO VG 32 Art. No.: 1323126 ISO VG 68
 Art. No.: 1323125 ISO VG 46



RAVENOL Frostlube F

ISO VG 12 | ISO 6743/4-HV

High-quality, wear-reducing hydraulic oil for use at very low temperatures, e.g. systems in cold storage facilities or movable equipment used outdoors under severe winter conditions.

Art. No.: 1323350



RAVENOL Frostlube F

ISO VG 22 | ISO 6743/4-HV

High-quality, wear-reducing hydraulic oil for use at very low temperatures, e.g. systems in cold storage facilities or movable equipment used outdoors under severe winter conditions.

Art. No.: 1323351



RAVENOL Frostlube F

ISO VG 32 | ISO 6743/4-HV

High-quality, wear-reducing hydraulic oil for use at very low temperatures, e.g. systems in cold storage facilities or movable equipment used outdoors under severe winter conditions.

Art. No.: 1323352



RAVENOL Bio-Hydrauliköl (auf Esterbasis)

HEES | DIN 51 524 VDMA 24532, VDMA 24570, VDMA 24568

RAVENOL organic ester-based hydraulic oil. Use in hydraulics in sewage treatment plants, dredging ships and floating dredges, lock hydraulics and river weirs, pipe jacking and tunnel boring machines, hydraulic aggregates, forestry and agricultural machinery.

ISO 15380, Rexroth Bosch Group: RE / RD 90221-01/02.10, SP Technical Research Institute, Sweden (Swedish Standard 15 54 34), fulfils the requirement for the "Blue Angel". JCMAS P042 HKB, Parker Denison HF-1, HF-2, HF-6 (Dry ASTM D4310), Swedish Standard SS 15 54 34 Category V (Dry ASTM D943), USDA Biopreferred®, US Vessel General Permit (VGP)

Art. No.: 1321104 ISO VG 32 Art. No.: 1321106 ISO VG 68
 Art. No.: 1321105 ISO VG 46

Industrial oils, specialities

RAVENOL industrial oils and specialities are developed for the requirements of modern high-performance machines and aggregates in our laboratory. Increased utilisation and higher efficiencies lead to ever higher speeds and forces. This results in a steadily increasing load on the lubricant. RAVENOL industrial oils and specialities are able to withstand increased loads. The superior properties of these lubricants go far beyond the specifications and regulations of the machine manufacturers. Extended oil change intervals and reduced maintenance outlay also contribute to reducing costs. RAVENOL industrial oils and specialities have a wide range of applications with excellent long-life properties that ensure optimum wear resistance even under extreme strain. RAVENOL industrial oils help to increase the performance, cost-effectiveness and service life of machines and facilities.



RAVENOL DOT 4

ISO 4925 | FMVSS 116 DOT 4

DOT 4 brake fluid for all vehicles with ABS features.

SAE J1704

Art. No.: 1350601



RAVENOL DOT 4 LV

ISO 4925 (6) | FMVSS 116 DOT 4

Brake and clutch fluid that complies with the latest ISO 4925 Class 6 standard and is particularly suitable for use at low temperatures.

SAE J 1703, SAE J 1704 and ISO 4925 (Class 3, 4 & 6)

Art. No.: 1350605



RAVENOL DOT 5.1

ISO 4925 | FMVSS 116 DOT 5.1

DOT 5.1 brake fluid for all vehicles with ABS features which these specifications require.

SAE J1704

Art. No.: 1350602



RAVENOL Calibration Fluid

ISO 4113

Test oil for the calibration of diesel injection pumps and as corrosion protection oil for the internal preservation of fuel systems.

SAE J 967D, MB 133.0, MTU

Art. No.: 1350130



RAVENOL Calibration Fluid 2.5

ISO-Norm 4113-CV-AW

Test oil for the calibration of diesel injection pumps from Bosch (VS 15665-OL-CV), MTU, MAN and Volkswagen. Also used as corrosion protection oil for the internal preservation of fuel systems of MTU, Lucas CAV, MB DBL 6513.

Art. No.: 1350131



RAVENOL Turbo Oil T

Siemens TLV 901304, TLV 9013 05 | DIN 51515 Part 1 (L-TD), Part 2 (L-TG)

High-quality lubricating oil for gas and steam turbines as well as for turbo compressors with and without gears.

MIL-L-17672 D, British Standard BS 489, General Electric GEK 32568 A/C, CEEB Standard 207001, Brown Boveri HTGD 90117, U.S.Steel 120, Westinghouse Electric Corp. Turbine Oil Spec., Alstom HTGD 90117 V0001 S, Solar ES 9 224 requirements for gas turbine oils Class II

Art. No.: 1331114 ISO VG 32
Art. No.: 1331115 ISO VG 46



**RAVENOL
Getriebeöl CLP**

DIN 51 517 Part 3, FZG 12, US Steel 224

CLP gear oil for use in industrial transmissions.

US Steel 224, AGMA 9005-D94, Cincinnati Milacron, Clean Panel Coker, S-200 Oxidation Tubes

- Art. No.: 1332106 ISO VG 68
- Art. No.: 1332107 ISO VG 100
- Art. No.: 1332108 ISO VG 150
- Art. No.: 1332109 ISO VG 220
- Art. No.: 1332110 ISO VG 320
- Art. No.: 1332111 ISO VG 460
- Art. No.: 1332112 ISO VG 680



**RAVENOL
Getriebeöl PAO CLP**

DIN 51 517 Part 3, US Steel 224

High-quality zinc and ash-free premium EP gear oil. It is used in closed industrial transmissions which are operated under heavy strain and with high temperature fluctuations.

Eickhoff mining technology: Confirmation for use in gear housings, Flender Industrial Gear GE787/788 and GA880 components, Eickhoff Gear, Jahnel Kestermann, AGMA 9005-E02 (EP), David Brown S1.53.101 Type E, Cincinnati Machine P-74

- Art. No.: 1332206 ISO VG 68
- Art. No.: 1332208 ISO VG 150
- Art. No.: 1332209 ISO VG 220
- Art. No.: 1332210 ISO VG 320
- Art. No.: 1332211 ISO VG 460
- Art. No.: 1332212 ISO VG 680



**RAVENOL
Kompressorenöl PAO**

DIN 51 506 VDL

High-quality compressor oil, specially developed to guarantee a longer service life in compressors with outstanding protection against wear. Suitable for use as a compressor fluid for rolling vane rotary compressors..

- Art. No.: 1330115 ISO VG 46
- Art. No.: 1330116 ISO VG 68
- Art. No.: 1330117 ISO VG 100
- Art. No.: 1330118 ISO VG 150



**RAVENOL
ODL Druckluftöl**

Special compressed air oil for pneumatic tools of all systems. Binds condensation water, has excellent corrosion and wear protection.

Atlas Copco, Festo, Hilti, Bosch, Makita, Black & Decker, Cress, Ryobi, DeWalt, Sumake, Seno, Hitachi.

- Art. No.: 1323404 ISO VG 32
- Art. No.: 1323405 ISO VG 46
- Art. No.: 1323407 ISO VG 100



**RAVENOL
Wärmeträgeröl**

Mineral oil-based heat transfer oil for use in heat transfer systems with forced circulation.

DIN 51 522 heat transfer oil Q32 in accordance with DIN 51 502

- Art. No.: 1330210 ISO VG 32
- Art. No.: 1330212 ISO VG 68



RAVENOL Traföl 1000P
IEC 60296 (03)

Insulating oil for transformers and switches.

Art. No.: 1330201



**RAVENOL
Kompressorenöl VDL**

DIN 51 506 VDL

Use in stationary and mobile compressors, circular lubrication of engines and in diesel engines.

ATLAS COPCO, ABAC, ALUP, CompAir, FIAC, FINI, KAESER

- Art. No.: 1330100 ISO VG 100
- Art. No.: 1330101 ISO VG 150
- Art. No.: 1330102 ISO VG 220



**RAVENOL SCR
Screw Kompressorenöl**

DIN 51 524 Part 2

Optimally alloyed screw compressor oil with a high performance level and a wide range of applications throughout the industry.

Vickers Pump Test, FZG test A 8.3/90: the 12th load level is safely reached

- Art. No.: 1330304 ISO VG 32
- Art. No.: 1330305 ISO VG 46
- Art. No.: 1330306 ISO VG 68
- Art. No.: 1330307 ISO VG 100



**RAVENOL SCR PAO
Screw Kompressorenöl**

DIN 51 506 VDL

Fully synthetic compressor oil which has been specially developed for a longer lifespan in screw compressors. Good ageing resistance with very low residue formation

- Art. No.: 1330314 ISO VG 32
- Art. No.: 1330315 ISO VG 46
- Art. No.: 1330316 ISO VG 68



RAVENOL Gatteröl
ISO VG 320

Adhesive lubricating oil for use in (open) plain bearings in the metalworking industry, as well as textile, packaging and rotary machines.

Art. No.: 1350370



**RAVENOL
Kältemaschinenöl K**

DIN 51 503 Group KAA

Compressor oil to lubricate refrigeration machines.

- Art. No.: 1331104 ISO VG 32
- Art. No.: 1331105 ISO VG 46
- Art. No.: 1331106 ISO VG 68



**RAVENOL
Kältemaschinenöl PAO**

DIN 51 503 Group KAA/KC/KE

Refrigeration machine oil for use in all types of refrigeration compressors such as piston, screw and rotary compressors. For dry and flooded compressors.

- Art. No.: 1331255 ISO VG 46
- Art. No.: 1331256 ISO VG 68
- Art. No.: 1331259 ISO VG 220



RAVENOL Kältemaschinenöl POE

Compressor oil to lubricate refrigeration machines.

HFC 134a, R 404a, R 507

- Art. No.: 1331202 ISO VG 15
- Art. No.: 1331203 ISO VG 22
- Art. No.: 1331204 ISO VG 32
- Art. No.: 1331205 ISO VG 46
- Art. No.: 1331206 ISO VG 68
- Art. No.: 1331207 ISO VG 100



RAVENOL Umlauföl 460

ISO VG 460 | DIN 51 517 Part 2

Rolling bearing oil based on high-quality base oils as well as specially selected additives to achieve effective rust and corrosion protection as well as excellent demulsifying behaviour.

SMS SIEMAG - MORGOIL® Lubricant specification SN 180-Part 4: 2009-07, SN 180-Part 3: 2009-06

Art. No.: 1333111



RAVENOL Umlauföl NB-E

DIN 51524 Part 1

Circulating oil for machine tools.

Category HL, DIN 51 517 Part 2, Category CL, DIN 51 506 VBL/VCL

- Art. No.: 1333003 ISO VG 22
- Art. No.: 1333004 ISO VG 32
- Art. No.: 1333005 ISO VG 46
- Art. No.: 1333006 ISO VG 68
- Art. No.: 1333007 ISO VG 100
- Art. No.: 1333008 ISO VG 150



RAVENOL Turbinenöl T32

ISO VG 32, 6743-0 | DIN 51 515

High-quality lubricants for turbines.

BS 489, CEGB Standard 207001, General Electric GEK 32568 A/C, MIL-L-17672 D, Siemens TLV 9013 04/01, Alstom HTGD 90117 V0001 S, Brown Boveri HTGD 90117, Solar ES 9 224 Class II (ISO VG 32), U.S. Steel 120, Westinghouse Electric Corp. Turbine Oil. Spec.

Art. No.: 1330354



RAVENOL Turbinenöl T46

ISO VG 46, 6743-0 | DIN 51515, Part 1 (L-TD), Part 2 (L-TG)

High-quality lubricants for turbines.

BS 489, CEGB Standard 207001, General Electric GEK 32568 A/C, MIL-L-17672 D, Siemens TLV 9013 04/01, Alstom HTGD 90117 V0001 S, Brown Boveri HTGD 90117, Solar ES 9 224 Class II (ISO VG 32), U.S. Steel 120, Westinghouse Electric Corp. Turbine Oil. Spec.

Art. No.: 1330355



RAVENOL Turbinenöl T68

ISO VG 68, 6743-0 | DIN 51 515 L-TD

High-quality lubricants for turbines.

BS 489: 1999, Siemens TLV 9013 04, Alstom HTGD 90117

Art. No.: 1330356



RAVENOL Vakuumpumpenöl ISO VG

ISO 6743-3 DVA & DVC | DIN 51 506 VC

Vacuum pump oil for use in sealing, cooling and lubricating oil-sealed vacuum pumps.

Vickers Vane Pump, AFNOR NF E 48-603 (HM, HV), Leybold-Heraeus 175, Edwards Ultragrade 19, Alcatel 100, 119 and 120, PVR Rotant, Becker Vakuumpumpen, Hyvac 93055, Ulvac 100, BUSCH VM and VMH, Balzers P3, Kinney Type A, Beckmann 19, Fisherbrand 19, SAVANT SPO-1

- Art. No.: 1330704 ISO VG 32
- Art. No.: 1330705 ISO VG 46
- Art. No.: 1330706 ISO VG 68
- Art. No.: 1330707 ISO VG 100
- Art. No.: 1330708 ISO VG 150



RAVENOL Getriebeöl Glycosynth Gear

DIN 51 517 Part 3, FZG 12

Synthetic industrial gear oil for the lubrication of mechanical gears and bearing systems subject to heavy strain and temperatures.

- Art. No.: 1332308 ISO VG 150
- Art. No.: 1332309 ISO VG 220
- Art. No.: 1332310 ISO VG 320



RAVENOL Bettbahnöl

DIN 51 502 CGLP, DIN 51 517-3 CLP, DIN 51 524-2 HLP

High-performance oil for slideways and guideways under strenuous conditions.

32: AFNOR E 60-203 L-G/HG, GB 11118:1-94 L-HG/HM, ISO 6743-6 CKC, ISO 6743-13 GA/GB; ISO 11158 HG/HM, ISO 19378 GA/GB, SAE MS 1007 Type E, SH/T 0361-98 L-G, Eaton Vickers M-2950-S, General Motors LS2 LW-03-1-04, Fives Cincinnati P-53

- Art. No.: 1350374 ISO VG 32
- Art. No.: 1350375 ISO VG 46
- Art. No.: 1350376 ISO VG 68
- Art. No.: 1350377 ISO VG 150
- Art. No.: 1350378 ISO VG 220



RAVENOL Turbinenöl T100

ISO VG 100, 6743-0 | DIN 51 515 L-TD

High-quality lubricants for turbines.

BS 489: 1999, Siemens TLV 9013 04

Art. No.: 1330357



RAVENOL Sägekettenöl S 85

Use in motor chain saws. Based on mineral oils.

Art. No.: 1350300



RAVENOL Super Sägekettenöl

Use in motor chain saws. Rapidly biodegradable. Blue Angel

"Blue Angel" in accordance with RAL-ZU 48, "KWF Test" with test no. 4979 EU Ecolabel with test number DE/027/187

Art. No.: 1350301

Lubricating greases

RAVENOL offers a wide range of lubricating greases for the widest variety of applications, all tailored to use on land and water.

Lubricating greases

Lubricating greases are usually made up of oil and a thickener. A differentiation is made between the following:

1) Metal soap lubricating greases (Ca-, Al-, Ba-, Li-, Na-, Pb and complex soap lubricating greases) which are made up of fatty acids and lyes as metal soaps (thickening or swelling agents) and lubricating greases. Metal soap, lubricating oil and manufacturing process determine the structure, consistency, properties of use and type of application.

A) Lithium complex soap lubricating grease

Lithium complex soaps are complex lithium salt mixtures (i.e. mixtures of different, usually organic, acids that are saponified with lithium hydroxide) that are used as thickening agents in lubricating greases. Lubricating greases with this base are characterised by a high dripping point and good water resistance as well as wide temperature ranges for application.

They serve as the basis for the majority of RAVENOL greases.

b) Calcium complex soap lubricating greases Calcium complex soaps are very water-resistant lubricating greases with good corrosion-protection properties and high load-bearing capacities. Mixtures of different, usually organic, acids saponified with calcium hydroxide are used as thickening agents. With longer exposure to higher temperatures, the consistency will thicken. They are used in the RAVENOL marine grease, for example.

2) Soap-free lubricating greases with inorganic gelling agents (silica gel, silicate gel, bentonite) or organic thickening agents (polyethylene, polypropylene, polyurea etc.) and lubricating oils.

3) Soap-free lubricating greases which are made up of organic or anorganic thickening agents and synthetic oils (ester, silicone, polyglycol, polyphenyl ether oils).

- Labelling according to DIN 51 502 (German Institute for Standardisation) is intended to enable the uniform and unambiguous designation of lubricating greases to avoid damage due to confusion. RAVENOL lubricating greases are used for permanent lubrication of roller and plain bearings, sliding surfaces, gear wheels / tooth segments, automatic belt mechanisms and hinges.
- Our RAVENOL greases are available, depending on the type, in different container sizes in tubes of 50g, 90g, 100g, 200g, cartridges of 400g, buckets of 1kg, 5kg, 15kg, 25kg and barrels of 180kg.

In the event of higher demand, additional packaging units are available on request.

LABELLING OF LUBRICATING GREASES ACCORDING TO DIN 51 502:

Lubricating grease for	
K	Roller bearings, plain bearings, sliding surfaces according to DIN 51 825
G	Closed transmissions DIN 51 826 OG - open transmissions
M	Sliding bearings and seals (lower requirements than for K)
Additional letters for the base oil type and additive	
P	EP/AW Additive
F	Solid lubricants, e.g. MoS ₂
E	Ester oils
FK	Hydrofluorocarbons
HC	Synthetic hydrocarbons
PH	Phosphoric acid esters
PG	Polyglycols
SI	Silicon oils
X	Other

UPPER OPERATING TEMPERATURES AND BEHAVIOUR WHEN EXPOSED TO WATER AT TEST TEMPERATURES

Additional letter	Upper operating temperature	Behaviour when exposed to water at test temperatures according to DIN 51807 of	
	in °C	40 °C	90 °C
C	60	0 or 1	
D	60	2 or 3	
E	80	0 or 1	
F	80	2 or 3	
G	100		0 or 1
H	100		2 or 3
K	120		0 or 1
M	120		2 or 3
N	140		
P	160		
R	180		
S	200		
T	220		
U	over 220		

0 - no change 1 - little change 2 - moderate change 3 - significant change

Classifications of greases by NLGI numbers

NLGI-No.	Appearance	Worked penetration in 0,1 mm DIN ISO 2137	Application
000	fluid	445/475	Centralized grease system and gear greases
00	semi-fluid	400/430	
0	very soft	355/385	Greases for bearings
1	soft	310/340	
2	"normal" grease	265/295	
3	firm	220/250	Block greases
4	very firm	175/205	
5	hard	130/160	
6	very hard	85/115	

NATIONAL LUBRICATING GREASE INSTITUTE (NLGI) - Classification
 NLGI 00 und 000 - semi-fluids for centralized grease system
 NLGI 1 - used in winter
 NLGI 2 - multi-purpose
 NLGI 3 - used in summer





RAVENOL Mehrzweckfett OML

NLGI 2 | Specification according to DIN 51 502: K2K-30

Lithium-saponified multi-purpose grease for the lubrication of roller bearings and machine parts subject to light loads. Also as a grease for vehicles.

MB 267.0, ISO 6743: ISO-L-XCCEA2

Art. No.: 1340101



RAVENOL Mehrzweckfett mit Graphit

NLGI 2 | Specification according to DIN 51 502: KPF2K-30

Lithium-saponified multi-purpose grease with graphite for applications exposed to maximum temperatures and shock loads, with emergency running properties.

ISO 6743: ISO-L-XCCFB2

Art. No.: 1340102



RAVENOL Mehrzweckfett mit MoS2

NLGI 2 | Specification according to DIN 51 502: KPF2K-30

Lithium-saponified multi-purpose grease with molybdenum disulphide MoS2 for the lubrication of hard-to-reach places, oscillating machine parts and for chassis lubrication. Resistant to salt water.

ISO 6743: ISO-L-XCCIB2

Art. No.: 1340103



RAVENOL Amber Getriebefließfett

NLGI 0 | Specification according to DIN 51 502: GPOK-30

Lithium-saponified multi-purpose grease for the central lubrication of HGV trailers and roller and ball bearings subject to heavy loads and low speeds.

ISO 6743: ISO-L-XCCFB0

Art. No.: 1340106



RAVENOL KFZ-Fließfett ZSA

NLGI 00 | Specification according to DIN 51 502: GP00K-30

Lithium-saponified EP grease for mobile central lubrication systems. It is recommended for VOGEL FF ZSA central lubrication systems, Mercedes-Benz and MAN.

ISO 6743: ISO-L-XCCEB00, MAN 283 Li-P 00/000, MB 264.0, Willi Vogel

Art. No.: 1340107



RAVENOL Kettenfließfett

NLGI 0 | Specification according to DIN 51 502: GPOK-30

Lithium-saponified multi-purpose grease to lubricate chains.

ISO 6743: ISO-L-XCCFB0

Art. No.: 1340114



RAVENOL Super EP-Langzeitfett

NLGI 2 | Specification according to DIN 51 502: KP2K-30

Lithium-saponified long-life grease for the lubrication of plain and roller bearings subject to heavy loads, also under the influence of moisture, vibration and impact loads.

ISO 6743: ISO-L-XCCFB2, LOVAT LOV-204

Art. No.: 1340104



RAVENOL LKW FETT BLAU

NLGI 2 | Specification according to DIN 51 502: KP2N-30

Blue lithium-saponified multi-purpose grease based on mineral oil for the lubrication of plain and roller bearings subject to heavy loads on trucks and construction machinery, also under the influence of moisture, vibration and impact loads.

ISO 6743: ISO-L-XCDIB2, VOLVO STD "Lubricating grease 97720", MAN 283 Li-P2, MB 267.0

Art. No.: 1340117



RAVENOL Wälzlagerfett LI-86

NLGI 3 | Specification according to DIN 51 502: K3K-30

Lithium-saponified roller bearing grease to lubricate quick-running roller and ball bearings. Particularly for chassis lubrication, lubrication of construction machinery and agricultural machinery. Very resistant to soiling and water.

ISO 6743: ISO-L-XCCFA3

Art. No.: 1340105



RAVENOL Polfett-Säureschutzfett

NLGI 2 | Specification according to DIN 51 502: K2K-30

Lithium-saponified multi-purpose grease to protect contacts and metal parts through aggressive acids.

ISO 6743: ISO-L-XCCEA2

Art. No.: 1340115



RAVENOL Hochleistungsfett mit MoS2

NLGI 2 | Specification according to DIN 51 502: KPF2K-30

Lithium-saponified high-performance grease with molybdenum disulphide for the lubrication of oscillating machine parts and homokinetic joints. Resistant to salt water.

ISO 6743: ISO-L-XCCIB2

Art. No.: 1340108



RAVENOL Kupferpaste

NLGI 1-2 | Specification according to DIN 51 502: KF1,5U-20

Lithium-saponified grease with copper power as solid lubricant additive for the lubrication of screw connections and bushings in drill pipes.

ISO 6743: ISO-L-XBGE1-2, operating temperature range -20°C to +1100°C

Art. No.: 1340109



RAVENOL Mehrzweck-Vaseline

NLGI 2 | K2K-30

Lithium-saponified multi-purpose grease with oxidation and corrosion protection components. It is exceptionally mechanically stable and has a very low inner friction coefficient, making it easy to work with.

ISO 6743: ISO-L-XCCEA2

Art. No.: 1340112



RAVENOL Extreme Pressure Grease EPG 3

NLGI 3 | Specification according to DIN 51 502: KP3K-30

Lithium-saponified universal high-performance grease for industry and the automotive sector. Use as a lubricating grease for plain and roller bearings at lubrication points in motor vehicles, devices, machinery, conveyor systems, construction machinery, etc..

ISO 6743: ISO-L-XCCEB3

Art. No.: 1340127



RAVENOL Hot Red Grease HRG 1

NLGI 1 | Specification according to DIN 51 502: KP1P-35

Red lithium-saponified universal high-performance grease for industry and the automotive sector. Use as a lubricating grease for plain and roller bearings at lubrication points in motor vehicles, devices, machinery, conveyor systems, construction machinery, etc..

ISO 6743: ISO-L-XCEE1

Art. No.: 1340120



RAVENOL Arctic Tripoid Grease ATG 2

NLGI 2 | Specification according to DIN 51 502: KPFE2K-60

Lithium-saponified high-performance grease with molybdenum disulphide MoS2 based on synthetic-native esters, synthetic hydrocarbons and high-quality mineral oils. Suitable for the lubrication of roller and plain bearings subject to extremely heavy loads at very low temperatures.

ISO 6743: ISO-L-XECEB2

Art. No.: 1340125



RAVENOL Marinefett

NLGI 2 | Specification according to DIN 51 502: KP2K-30

Yellow-green fluorescent seawater-resistant long-term adhesive grease. It is based on a special calcium soap and a high-viscosity synthetic base oil, as well as specially selected active substances to combat oxidation, rust and corrosion.

ISO 6743: ISO-L-XCCFB2

Art. No.: 1340128



RAVENOL Hot Red Grease HRG 2

NLGI 2 | Specification according to DIN 51 502: KP2P-35

Red lithium-saponified high performance grease to lubricate plain and roller bearings subject to heavy loads at increased bearing temperatures. Use for wheel bearing lubrication of commercial vehicles and for high speed wheel bearings on passenger cars.

ISO 6743: ISO-L-XCEE2, MAN 284 Li-H2, MB-Approval 265.1

Art. No.: 1340121



RAVENOL Hot Red Grease HRG 3

NLGI 3 | Specification according to DIN 51 502: KP3P-25

Red lithium-saponified high performance grease to lubricate plain and roller bearings subject to heavy loads at increased bearing temperatures. Use for wheel bearing lubrication of commercial vehicles and for high speed wheel bearings on passenger cars.

ISO 6743: ISO-L-XBEEB3

Art. No.: 1340122



RAVENOL Arctic Green Grease AGG 2

NLGI 2 | Specification according to DIN 51 502: KP2K-60

Green lithium-saponified high-performance grease based on synthetic-native esters, synthetic hydrocarbons and high-quality mineral oils. Suitable for the lubrication of roller and plain bearings subject to heavy loads at very low temperatures.

ISO 6743: ISO-L-XECEB2

Art. No.: 1340126

Additives and brake fluids

RAVENOL's high-quality additives and brake fluids help to improve engine performance and actively contribute to retaining the vehicle's value.

Additives are active substances added to fuel, lubricants or engine coolants that emphasise their respective positive properties and at the same time reduce negative effects such as friction or increased soot emissions.



RAVENOL Petrol Performance Optimizer Premium

TÜV Seal

Premium fuel additive for all petrol engines, designed to clean all components which come into contact with fuel. Ensures technically safe and economical operation. Protects the petrol fuel system, also when using E10 fuel.

Art. No.: 1390201



RAVENOL Petrol System Cleaner

Cleans and protects the injector system from corrosion. Removes resinous and varnish-type deposits on fuel injection valves and fuel volume distributors on a microscale, ensuring precise control of fuel injection valves.

Art. No.: 1390202



RAVENOL Petrol Quality Stabilisator

Corrosion and ageing protection. For storage and overwintering and to avoid ignition problems after longer standing periods.

Art. No.: 1390203



RAVENOL Octane Booster

Optimal engine performance using octane boosting To increase performance when using lower-quality fuel.

Art. No.: 1390204



RAVENOL Diesel Performance Optimizer Premium

TÜV Seal

Premium fuel additive for all diesel engines to clean the diesel system and enhance the operational safety and economy of diesel engines. Cleans and protects the diesel fuel system.

Art. No.: 1390241



RAVENOL Diesel Cetane Booster

Improved ignition, especially for cold starts. Boosts the cetane value of the diesel fuel.

Art. No.: 1390242



RAVENOL Diesel System Cleaner

Cleans the injection system for low-soot combustion. Prevents nailing and rough idling.

Art. No.: 1390243



RAVENOL Diesel Quality Stabilisator

Improves the storage stability of diesel fuel through effective antioxidants and dispersants, also for use in decommissioned vehicles.

Art. No.: 1390244



RAVENOL Professional Radiator Stop Leak

Seals small leaks in the radiator safely and quickly to increase operational safety.

Art. No.: 1390301



RAVENOL Professional Engine Cleaner

Cleaning concentrate to combat black sludge. Effectively breaks down dirt and sludge deposits in the engine compartment using intensive cleaning tensides, removing them effectively when used oil is drained.

Art. No.: 1390321



RAVENOL Racing Brake Fluid R 325+

High-performance brake fluid with very high thermal load capacity at the very highest DOT 4 level. Very high boiling and wet boiling point. Ideal brake fluid for racing (car and motorcycle).

FMVSS No. 116 DOT 4, DOT 5.1, SAE J1703, SAE J1704

Art. No.: 1350604



RAVENOL DOT 4

ISO 4925 | FMVSS 116 DOT 4

DOT 4 brake fluid for all vehicles with ABS features.

SAE J1704

Art. No.: 1350601



RAVENOL Professional Radiator Cleaner

Cleaning concentrate for the cooling and heating system. Breaks down and binds greasy and oily residues in radiators, heating systems and pipelines.

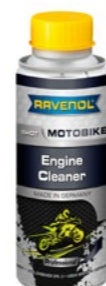
Art. No.: 1390302



RAVENOL Motobike System Cleaner Shot

Fuel additive with high proportion of cleaning and corrosion-protective additives for all petrol direct injection engines for motorbikes which increases the performance of the engine.

Art. No.: 1390401



RAVENOL Motobike Engine Cleaner Shot

Highly effective oil circuit cleaning concentrate for the efficient cleaning of all motorbike engines (with and without catalytic converter).

Art. No.: 1390402



RAVENOL DOT 4 LV

ISO 4925 (6) | FMVSS 116 DOT 4

Brake and clutch fluid that complies with the latest ISO 4925 Class 6 standard and is particularly suitable for use at low temperatures.

SAE J 1703, SAE J 1704 and ISO 4925 (Class 3, 4 & 6)

Art. No.: 1350605



RAVENOL DOT 5.1

ISO 4925 | FMVSS 116 DOT 5.1

DOT 5.1 brake fluid for all vehicles with ABS features which these specifications require.

SAE J1704

Art. No.: 1350602

Accessories and workshop equipment

These are the must-have products for every workshop. They make day-to-day work on vehicles easier and are perfect to use in conjunction with RAVENOL products.



RAVENOL Feinmechaniköl

Universal oil for bicycles, sewing machines, household and office machines, locks, tools, etc.

Art. No.: 1350360



RAVENOL Ölfasspumpe

Oil barrel pump suitable for drums from 60L to 208L.

Art. No.: 1370190



**RAVENOL Fettpresse
RAVENOL Hydraulik-
Mundstück**

Hand-lever press with armoured hose
Hydraulic mouthpiece, standard with
punched jaws, suitable for conical grease
nipples according to DIN 71412. Suitable for
use with the RAVENOL Fettpresse (grease
gun) nozzle tube.
Measurements: M10 x 1, Head -15 mm, Build
height 36mm, Key width 13

Art. No.: 1370040
Art. No.: 1370044



**RAVENOL Düsenrohr/
Panzerschlauch**

Nozzle tube suitable for grease/hand lever
press (Art. 1370040)
50 cm armoured hose for the hand lever
press is a high-quality armoured hose
suitable for the RAVENOL hand lever press.

Art. No.: 1370041
Art.-No.: 1370042-30 cm
Art.-No.: 1370043-50 cm



RAVENOL Messkanne

Measuring can, ideal for filling liquids.

Art. No.: 1370052 500 ml
Art.-No.: 1370053 1L
Art.-No.: 1370054 2L



**RAVENOL Plastik-
Trichter flex. Rohr + Sieb
160 mm**

Funnel with flex. hose and 160 mm brass
sieve is perfect for filling all kinds of liquids.

Art. No.: 1370120



**RAVENOL
Mehrzweckwanne 7l**

Practical 7 L oil change tub and collection
tub, suitable for use for oil changes. With red
sieve, practical spout and suspension eyelet.

Art. No.: 1370170



**RAVENOL Fluid Syringe
with Discharge**

A transparent plastic oil extractor pump
with an oil syringe and a container with a
capacity of approx. 1 L. Using this product,
oils and other liquids can be extracted out
of the attached container and also refilled
using pressure.

Art. No.: 1370181



**RAVENOL Plastik-
Trichter o. Sieb gerade
50 mm, 75 mm, 100
mm, 120 mm, 150 mm**

Plastic funnel without sieve is suitable for
filling all kinds of liquids.

Art. No.: 1370081 50 mm
Art.-No.: 1370082 75 mm
Art.-No.: 1370083 100 mm
Art.-No.: 1370084 120 mm
Art.-No.: 1370085 150 mm



**RAVENOL Plastik-
Trichter m. Messingsieb
200 mm, 250 mm**

Plastic funnel with 200 mm brass sieve is
perfect for filling all kinds of liquids.

Art. No.: 1370086
Art.-No.: 1370087



**RAVENOL Plastik-
Trichter abg. Ausl. + Sieb
160 mm**

Plastic funnel with 160 mm brass sieve is
perfect for filling all kinds of liquids.

Art. No.: 1370110



**RAVENOL Utility In & Out
Fluid Syringe**

A transparent oil extractor pump with
a plastic oil syringe which can be used
to extract and refill oils or other fluids.
Capacity: 0.35 L.

Art. No.: 1370180



**Ölverkaufs-Ständer
(Metall)**

3-level sales stands for various metal
container sizes, for the simple presentation
of 1L, 4L, 5L and 7L containers. Simple
installation incl. spanners.
Available with this product as an option: Art.
1370198 roller set, consisting of four rollers,
two of which can brake.

Art. No.: 1370199



**RAVENOL Ölverkaufs-
Ständer (Pappe)**

Cardboard wing display for engine oil
bottles. The side walls have plastic profile
edges. The whole display is coated with gloss
film.
Flexible construction, easy installation.

Art. No.: 1370200



RAVENOL Pappaufsteller Set

Set of 3 stand-up posters with rear support
Motifs: RAVENOL drum, RAVENOL canister, woman with RAVENOL canister. Cardboard GD2 230 g
Print: 4-colours, glossy film

Art. No.: 1370202



RAVENOL Bag-in-Box-Ständer

Metal outer box on castors.
Powder coating in RAVENOL blue
Holding devices for ten or six Bag-in-Boxes

Art. No.: 1370220
Art. No.: 1370221



RAVENOL Auslaufhahn

Dispensing tap, to fill
- Industrial chemicals
- Cleaning products
- Disinfectants
- Liquid foods
- Lubricants, engine and gear oils
- Water

Art. No.: 1370310
Art.-No.: 1370330 (Auslaufhahn 3/4 Zoll f. 60 l / 200 l Blechfass)



Care products and cleaners

Care products for your vehicle complete the professional RAVENOL lubricant range for our clients. In addition to high-quality cleaners, you will also find care products that prolong the life of your car, motorbike or watercraft.



RAVENOL Druckpumpzerstäuber

Plastic pressure sprayer which can be flexibly used for a range of tasks. Maximum capacity 0.9 L at a pressure of 3 bar.

Art. No.: 1370351



RAVENOL Hand-Reinigungstücher

Wet hand cleansing wipes with antibacterial effect. The wipes will remove a great deal of dirt from the hands and the caring ingredients they contain will protect them. The wipes neutralise odours.

Art. No.: 1360700



RAVENOL Kaltreiniger

Cold cleaner containing solvents for heavily soiled engines and machinery parts. No impairment of oil separators. Removes impurities, oil and grease residues on engine parts, machinery, tools, floors and non-woven fabrics.

Art. No.: 1360001



RAVENOL Kaltreiniger lösemittelfrei

Solvent-free cold cleaner degreases and cleans workshop floors, truck tarpaulins, engines, chassis, machinery parts and very oily and resinous surfaces. Removes dirt, oil, grease, soot, nicotine, etc. Suitable for use in high pressure cleaners. Free from phosphates and solvents.

Art. No.: 1360002



RAVENOL Hochdruckreiniger Super Konzentrat

Ready-to use concentrate for use in high pressure cleaners according to the device manufacturer's indications. Also suitable for cleaning vehicles and surfaces in commercial premises.

Kärcher, Lavor, Nilfisk Alto, Portotecnica, Kränzle, Delvir, Comet.

Art. No.: 1360003



RAVENOL Hochdruckreiniger Super-Konzentrat

Effective super-concentrate for universal cleaning with a 10% mix. Use in high pressure cleaners according to the device manufacturer's indications.

Kärcher, Lavor, Nilfisk Alto, Portotecnica, Kränzle, Delvir, Comet.

Art. No.: 1360006



RAVENOL Nitro-Universal-Verdünnung

Application for thinning nitro, nitro-combination, chlorinated rubber, air-drying and oven-drying synthetic resin lacquers, as well as air- and oven-drying Zapon lacquers.

Art. No.: 1360127



RAVENOL Teer-Entferner

Effortlessly removes tar and oil traces from paintwork, plastic and chrome parts.

Art. No.: 1360004



RAVENOL Bremsenreiniger (flüssig und Spray)

Liquid and spray brake cleaner degreases and cleans brakes, brake pads and clutch parts. Also suitable to clean electric engines, generators, hydraulic parts etc.

Art. No.: 1360030



RAVENOL Rostlöser MoS2 Spray

Loosens and releases seized screw connections, displaces water from ignition contacts and electrical equipment and prevents squeaking and creaking noises.

Art. No.: 1360009



RAVENOL Cockpit-Spray

Very effective silicon-free spray to clean and care for plastic, artificial leather and natural leather inside the vehicle.

Art. No.: 1360031



RAVENOL Autoshampono

Car shampoo with an intensive effect thanks to the active cleaning ingredients.

Art. No.: 1360005



RAVENOL destilliertes Wasser

De-ionised water in accordance with VDE specifications for use in vehicle batteries, irons, aquariums, etc.

Art. No.: 1360010



RAVENOL Glasklar

Cleaner for all glass and mirrored surfaces both inside and outside the vehicle. It removes fingerprints, greasy dirt and nicotine quickly and easily. Leaves a fresh fragrance behind.

Art. No.: 1360025



RAVENOL Carb Reiniger Spray

Thoroughly cleans carburetors in the intake and throttle valve area.

Art. No.: 1360305



RAVENOL Silikon-Spray

Lubricates, cares and maintains rubber, plastic and metal surfaces. The product, which is colourless, neutral in taste and odour after the solvent and propellant gases have evaporated, is physiologically indifferent, waterproof, radiation-resistant and weatherproof.

Art. No.: 1360033



RAVENOL Motorstarter-Spray

Spray for increasing the ignition readiness of petrol and diesel engines after longer periods of non-use or unfavourable weather conditions. Can be used in marine or agricultural environments.

Art. No.: 1360034



**RAVENOL
Zweirad-Reiniger**

Removes impurities such as dust, oil, grease, brake dust on alloys, plastic coating, etc...

Art. No.: 1360058



**RAVENOL
Insekten-Entferner**

Removes insects on glass, paintwork, chrome and plastic surfaces. Can also be used as a pre-treatment before washing the car.

Art. No.: 1360059



**RAVENOL Alu-Felgen-
Reiniger intensiv**

Removes the toughest dirt such as diesel, oil, grease, brake dust, etc.. For cleaning alloy wheel rims, frames, engine parts.

Art. No.: 1360060



RAVENOL Fogging Oil

Corrosion protection spray for the engine combustion chamber. Suitable for indoor and outdoor marine and boat engines, generators, lawn mowers, snowmobiles and other irregularly used engines.

Art. No.: 1360035



**RAVENOL
Active Foam Cleaner**

Universal cleaning foam to quickly clean all of your vehicle's surfaces i.e. the bodywork or racing chassis and glass surfaces.

Art. No.: 1360036



**RAVENOL
Sommerscheiben-Reiniger**

Additive for the windscreen washer and headlight washer system on motor vehicles with orange fragrance. It is suitable for removing road dirt, insect residues and eliminates streaks and streak formation from combustion residues of vehicles driving ahead.

Art. No.: 1360080



**RAVENOL
Velour-Reiniger**

A phosphate-free velour cleaning care product for seat covers, floor mats, interior trims and all plastic surfaces in the vehicle. Effortless, effective cleaning of seats and fittings. Removes grease stains, traces of nicotine and food scraps completely, thereby removing unpleasant odours. It is gentle on surfaces.

Art. No.: 1360066



**RAVENOL
Leder-Reiniger**

Phosphate-free cleaner for leather seats and interior trims in passenger cars.

Art. No.: 1360067



RAVENOL Bootsreiniger

Cleans boats and watercraft without attacking their surface.

Art. No.: 1360068



**RAVENOL
Natur-Petroleum**

Lamp oil for petroleum lamps and burners.

Art. No.: 1350110



**RAVENOL
Handreiniger-Paste**

Hand cleaner to effectively clean dirty hands.

Art. No.: 1360600



**RAVENOL
Autopolitur**

Effective car polish. Cares and maintains the exterior. High-shine seal for cars, boats and caravan with Teflon. Is suitable for all types of vehicle paints as well as for chrome, wheel rim and windscreen cleaning. Removes tar, insects and restores high shine to matt paintwork.

Art. No.: 1360750

Coolant + antifreeze

RAVENOL coolants protect your car against the negative impact of low temperatures.

An anti-freeze is a substance (e.g. glycerin, glycol, ethanol) which lowers the freezing point of another substance (e.g. Water), thereby preventing this substance from freezing. It is known to be used as an additive for the cooling systems or in windscreen washer systems of motor vehicles.



RAVENOL TTC Concentrate Protect C11

PROTECT C11

Radiator antifreeze concentrate (green-lucent) with antifreeze and rust protection effect. Use according to the mixing table.

VW TL 774-C (corresponds to G11); MAN 324NF; AFNOR R15-601 (France); BS 6580 (GB); CUNA NC 956-16 (Italy); JIS K 2234 (Japan); O Norm V 5123 (Austria); UNE 25-361 (Spain); ASTM D 1384; ASTM D 2570; ASTM D 2809; ASTM D 3306 Type 1; ASTM D 4985; ASTM D 6210 Type 1-FF; SAE J1034; CHRYSLER MS 7170; FIAT 9.55523, FIAT PARAFU 11; FORD WSS-M97B51-A; IVECO 18-1830; Suzuki.

Art. No.: 1410100



RAVENOL TTC Premix -40°C Protect C11

PROTECT C11

Pre-mixed coolant (green-lucent) with frost and rust protection up to -40°C for year-round use in motor vehicle engines.

VW TL 774-C (corresponds to G11); MAN 324NF; AFNOR R15-601 (France); BS 6580 (GB); CUNA NC 956-16 (Italy); JIS K 2234 (Japan); O Norm V 5123 (Austria); UNE 25-361 (Spain); ASTM D 1384; ASTM D 2570; ASTM D 2809; ASTM D 3306 Type 1; ASTM D 4985; ASTM D 6210 Type 1-FF; SAE J1034; CHRYSLER MS 7170; FIAT 9.55523, FIAT PARAFU 11; FORD WSS-M97B51-A; IVECO 18-1830; Suzuki.

Art. No.: 1410105



RAVENOL TTC Hot Climate -15°C Protect C11

PROTECT C11

Pre-mixed coolant (green-lucent) with frost and rust protection up to -15°C for year-round use in motor vehicle engines.

VW TL 774-C (corresponds to G11); MAN 324NF; AFNOR R15-601 (France); BS 6580 (GB); CUNA NC 956-16 (Italy); JIS K 2234 (Japan); O Norm V 5123 (Austria); UNE 25-361 (Spain); ASTM D 1384; ASTM D 2570; ASTM D 2809; ASTM D 3306 Type 1; ASTM D 4985; ASTM D 6210 Type 1-FF; SAE J1034; CHRYSLER MS 7170; FIAT 9.55523, FIAT PARAFU 11; FORD WSS-M97B51-A; IVECO 18-1830; Suzuki.

Art. No.: 1410106



RAVENOL TTC COLD CLIMATE -60 Protect C11

PROTECT C11

Pre-mixed coolant (green-lucent) with frost and rust protection up to -60°C for year-round use in motor vehicle engines.

VW TL 774-C (corresponds to G11); MAN 324NF; AFNOR R15-601 (France); BS 6580 (GB); CUNA NC 956-16 (Italy); JIS K 2234 (Japan); O Norm V 5123 (Austria); UNE 25-361 (Spain); ASTM D 1384; ASTM D 2570; ASTM D 2809; ASTM D 3306 Type 1; ASTM D 4985; ASTM D 6210 Type 1-FF; SAE J1034; CHRYSLER MS 7170; FIAT 9.55523, FIAT PARAFU 11; FORD WSS-M97B51-A; IVECO 18-1830; Suzuki.

Art. No.: 1410140



RAVENOL OTC Concentrate Protect C12+

PROTECT C12+

Coolant + antifreeze concentrate (lilac) with highly-effective antifreeze and rust protection effect. Use according to the mixing table.

MAN 324 SNF, DEUTZ DQC CB-14, Mb-approval 325.3, VW/Audi TL 774-D/F (corresponds to G12 Plus Quality), Opel GM 6277M, Opel GM B 040 1065, Ford WSS-M 97 B44D (from model year 1999), FORD 1336797, 1336807, 1365305, Porsche, Mitsubishi 0103044, 0103045, MZ311986, Toyota 08889-00115, 08889-01005, 08889-80014, 08889-80015, 00272-1LLAC, VOLVO 9437650, 9437651, VW G012A8GM1, G012A8FM8, G012A8FM9. Included in the LAWA list of recommendations for water management requirements for geothermal probes and collectors. Adhere to the manufacturer instructions.

Art. No.: 1410110



RAVENOL OTC Premix -40°C Protect C12+

PROTECT C12+

Pre-mixed coolant (lilac) with frost and rust protection up to -40°C for year-round use in motor vehicle engines.

MAN 324 SNF, DEUTZ DQC CB-14, VW TL 774 version F/D (corresponds to G12 Plus), MB 326.3, Opel GM 6277 M, Opel GM B 040 1065, Ford WSS-M 97 B44D (from model 1999), FORD 1336797, 1336807, 1365305, Porsche, Mitsubishi 0103044, 0103045, MZ311986, Toyota 08889-00115, 08889-01005, 08889-80014, 08889-80015, 00272-1LLAC, VOLVO 9437650, 9437651, VW G012A8FM1, G012A8FM8, G012A8FM9, DAF 74002.

Art. No.: 1410112



RAVENOL OTC Hot Climate -15°C Protect C12+

PROTECT C12+

Pre-mixed coolant (lilac) with frost and rust protection up to -15°C for year-round use in motor vehicle engines.

MAN 324 SNF, DEUTZ DQC CB-14, VW TL 774 version F/D (corresponds to G12 Plus), Opel GM 6277 M, Opel GM B 040 1065, Ford WSS-M 97 B44D (from model 1999), FORD 1336797, 1336807, 1365305, Porsche, Mitsubishi 0103044, 0103045, MZ311986, Toyota 08889-00115, 08889-01005, 08889-80014, 08889-80015, 00272-1LLAC, VOLVO 9437650, 9437651, VW G012A8FM1, G012A8FM8, G012A8FM9, DAF 74002.

Art. No.: 1410113



RAVENOL OTC COLD CLIMATE -60°C Protect C12+

PROTECT C12+

Pre-mixed coolant (lilac) with frost and rust protection up to -60°C for year-round use in motor vehicle engines.

MAN 324 SNF, DEUTZ DQC CB-14, VW TL 774 version F/D (corresponds to G12 Plus), Opel GM 6277 M, Opel GM B 040 1065, Ford WSS-M 97 B44D (from model 1999), FORD 1336797, 1336807, 1365305, Porsche, Mitsubishi 0103044, 0103045, MZ311986, Toyota 08889-00115, 08889-01005, 08889-80014, 08889-80015, 00272-1LLAC, VOLVO 9437650, 9437651, VW G012A8FM1, G012A8FM8, G012A8FM9, DAF 74002.

Art. No.: 1410141



RAVENOL HTC Concentrate Protect MB325.0

PROTECT MB325.0

All-season mono-ethylene glycol-based coolant + anti-freeze (blue) with frost and rust protection effect for Mercedes, BMW, Opel, Saab and General Motors engines. Use according to the mixing table.

MB 325.0, VW TL 774-C, MB A000989082510, ASTM D3306, ASTM D4985, ASTM D4340, SAE J1034, NATO S-759, FORD ESE-M978B4H-A, FORD AF Plus, MAN 324, SAAB, GM 1825M, OPEL-GM QL130100, DAF, GM 1899M, GM 93740141, GM 93740140, VW-AUDI-PORSCHE, GM SATURN, ROVER, PORSCHE, John Deere, JAGUAR, BMW 81 22 9 407 454, 83 19 2 211 191, RENAULT Glaceol RX Type D, Honda OL999-9011. Included in the LAWA list of recommendations for water management requirements for geothermal probes and collectors. Adhere to the manufacturer instructions.

Art. No.: 1410120



RAVENOL HTC Premix -40°C Protect MB325.0

PROTECT MB325.0

Pre-mixed coolant (blue) with frost and rust protection up to -40°C for year-round use in motor vehicle engines.

MB 326.0, VW TL 774-C, MB 325.0, MB A000989082510, ASTM D3306, ASTM D4985, ASTM D4340, SAE J1034, NATO S-759, FORD ESE-M978B4H-A, FORD AF Plus, MAN 324, SAAB, GM 1825M, OPEL-GM QL130100, DAF, GM 1899M, GM 93740141, GM 93740140, VW-AUDI-PORSCHE, GM SATURN, ROVER, PORSCHE, John Deere, JAGUAR, BMW 81 22 9 407 454, 83 19 2 211 191, RENAULT Glaceol RX Type D, Honda OL999-9011

Art. No.: 1410121



RAVENOL HTC Hot Climate -15°C Protect MB325.0

PROTECT MB325.0

Pre-mixed coolant (blue) with frost and rust protection up to -15°C for year-round use in motor vehicle engines.

MB 325.0, VW TL 774-C, MB A000989082510, ASTM D3306, ASTM D4985, ASTM D4340, SAE J1034, NATO S-759, FORD ESE-M978B4H-A, FORD AF Plus, MAN 324, SAAB, GM 1825M, OPEL-GM QL130100, DAF, GM 1899M, GM 93740141, GM 93740140, VW-AUDI-PORSCHE, GM SATURN, ROVER, PORSCHE, John Deere, JAGUAR, BMW 81 22 9 407 454, 83 19 2 211 191, RENAULT Glaceol RX Type D, Honda OL999-9011.

Art. No.: 1410119



RAVENOL HTC COLD CLIMATE -60°C Protect MB325.0+

PROTECT MB325.0

Pre-mixed coolant (blue) with frost and rust protection up to -60°C for year-round use in motor vehicle engines.

MB 325.0, VW TL 774-C, MB A000989082510, ASTM D3306, ASTM D4985, ASTM D4340, SAE J1034, NATO S-759, FORD ESE-M978B4H-A, FORD AF Plus, MAN 324, SAAB, GM 1825M, OPEL-GM QL130100, DAF, GM 1899M, GM 93740141, GM 93740140, VW-AUDI-PORSCHE, GM SATURN, ROVER, PORSCHE, John Deere, JAGUAR, BMW 81 22 9 407 454, 83 19 2 211 191, RENAULT Glaceol RX Type D, Honda OL999-9011.

Art. No.: 1410142



RAVENOL HJC Concentrate Protect FL22

PROTECT FL22

Coolant + antifreeze concentrate (green-lucent) with antifreeze and rust protection effect. Use according to the mixing table.

Mazda FL22 Coolant, Mazda 000077508E20, C122CL005A4X, C100CL005A4X; Ford WSSM97B55 (Motorcraft Specialty Green Engine Coolant), Ford VC-10-A2; 08CLAG010S0 Honda E Coolant; Hyundai Long Life Coolant, Hyundai 07100-00200, 07100-00400, 00232-19010; Nissan Anti-freeze Coolant (L250); Nissan KE90299934, KE90299944; Subaru Coolant 16218; Suzuki Longlife Coolant.

Art. No.: 1410122



RAVENOL HJC Premix -40°C Protect FL22

PROTECT FL22

Pre-mixed coolant (green) with frost and rust protection up to -40°C for year-round use in motor vehicle engines.

Mazda FL22 Coolant, Mazda 000077508E20, C122CL005A4X, C100CL005A4X; Ford WSSM97B55 (Motorcraft Specialty Green Engine Coolant), Ford VC-10-A2; 08CLAG010S0 Honda E Coolant; Hyundai Long Life Coolant, Hyundai 07100-00200, 07100-00400, 00232-19010; Nissan Anti-freeze Coolant (L250); Nissan KE90299934, KE90299944; Subaru Coolant 16218; Suzuki Longlife Coolant.

Art. No.: 1410123



RAVENOL HJC Hot Climate -15°C Protect FL22

PROTECT FL22

Pre-mixed coolant (green) with frost and rust protection up to -15°C for year-round use in motor vehicle engines.

Mazda FL22 Coolant, Mazda 000077508E20, C122CL005A4X, C100CL005A4X; Ford WSSM97B55 (Motorcraft Specialty Green Engine Coolant), Ford VC-10-A2; 08CLAG010S0 Honda E Coolant; Hyundai Long Life Coolant, Hyundai 07100-00200, 07100-00400, 00232-19010; Nissan Anti-freeze Coolant (L250); Nissan KE90299934, KE90299944; Subaru Coolant 16218; Suzuki Longlife Coolant.

Art. No.: 1410124



RAVENOL HJC COLD CLIMATE -60°C Protect FL22

PROTECT FL22

Pre-mixed coolant (green) with frost and rust protection up to -60°C for year-round use in motor vehicle engines.

Mazda FL22 Coolant, Mazda 000077508E20, C122CL005A4X, C100CL005A4X; Ford WSSM97B55 (Motorcraft Specialty Green Engine Coolant), Ford VC-10-A2; 08CLAG010S0 Honda E Coolant; Hyundai Long Life Coolant, Hyundai 07100-00200, 07100-00400, 00232-19010; Nissan Anti-freeze Coolant (L250); Nissan KE90299934, KE90299944; Subaru Coolant 16218; Suzuki Longlife Coolant.

Art. No.: 1410143



RAVENOL LTC Concentrate Protect C12++

PROTECT C12++

Coolant + antifreeze concentrate (lilac) with highly-effective antifreeze and rust protection effect for year-round use in motor vehicle engines. Use according to the mixing table. Borate, nitrite amine and phosphate-free

VW TL 774-G (corresponds to G12 ++ quality) MAN 324 type Si-OAT, MB 325.5, MB 325.6, Porsche (from construction year 97) Boxster, Cayman, Cayenne, Panamera, SCANIA TB 1451, VW G012A8GM1, G012A8FM8, G012A8GM9, Chrysler MS.90032, Mopar 68163848AA, Mopar 68163849AA

Art. No.: 1410125



RAVENOL LTC Premix -40°C Protect C12++

PROTECT C12++

Pre-mixed coolant (lilac) with frost and rust protection up to -40°C for year-round use in motor vehicle engines.

VW TL 774-G (corresponds to G12 ++ quality) MAN 324 type Si-OAT, MB 325.5, MB 325.6, Porsche (from construction year 97) Boxster, Cayman, Cayenne, Panamera, SCANIA TB 1451, VW G012A8GM1, G012A8FM8, G012A8GM9, Chrysler MS.90032, Mopar 68163848AA, Mopar 68163849AA

Art. No.: 1410126



RAVENOL LTC Hot Climate -15°C Protect C12++

PROTECT C12++

Pre-mixed coolant (lilac) with frost and rust protection up to -15°C for year-round use in motor vehicle engines.

VW TL 774-G (corresponds to G12 ++ quality) MAN 324 type Si-OAT, MB 325.5, MB 325.6, Porsche (from construction year 97) Boxster, Cayman, Cayenne, Panamera, SCANIA TB 1451, VW G012A8GM1, G012A8FM8, G012A8GM9, Chrysler MS.90032, Mopar 68163848AA, Mopar 68163849AA

Art. No.: 1410127



RAVENOL LTC Hot Climate -60°C Protect C12++

PROTECT C12++

Pre-mixed coolant (lilac) with frost and rust protection up to -60°C for year-round use in motor vehicle engines.

VW TL 774-G (corresponds to G12 ++ quality) MAN 324 type Si-OAT, MB 325.5, MB 325.6, Porsche (from construction year 97) Boxster, Cayman, Cayenne, Panamera, SCANIA TB 1451, VW G012A8GM1, G012A8FM8, G012A8GM9, Chrysler MS.90032, Mopar 68163848AA, Mopar 68163849AA

Art. No.: 1410144



RAVENOL LGC Concentrate Protect C13

PROTECT C13

Longlife coolant + antifreeze concentrate (lilac) with highly-effective antifreeze and rust protection effect. Use according to the mixing table.

VW TL 774-J (corresponds to G13 quality), Volkswagen VW G013A8JM1, G013A8JM8, G013A8JM9, Audi, Skoda and Seat

Art. No.: 1410128



RAVENOL Premix -40°C Protect C13

PROTECT C13

Pre-mixed longlife coolant (lilac) with frost and rust protection up to -40°C for year-round use in motor vehicle engines.

VW TL 774-J (corresponds to G13 quality), Volkswagen VW G013A8JM1, G013A8JM8, G013A8JM9, Audi, Skoda and Seat

Art. No.: 1410129



RAVENOL LGC Hot Climate -15°C Protect C13

PROTECT C13

Pre-mixed longlife coolant (lilac) with frost and rust protection up to -15°C for year-round use in motor vehicle engines.

VW TL 774-J (corresponds to G13 quality), Volkswagen VW G013A8JM1, G013A8JM8, G013A8JM9, Audi, Skoda and Seat

Art. No.: 1410130



RAVENOL LGC Cold Climate -60°C Protect C13

Pre-mixed longlife coolant (lilac) with frost and rust protection up to -60°C for year-round use in motor vehicle engines.

VW TL 774-J (corresponds to G13 quality), Volkswagen VW G013A8JM1, G013A8JM8, G013A8JM9, Audi, Skoda and Seat

Art. No.: 1410145



RAVENOL HDT Heavy Duty Truck Cool. Concentrate

Coolant concentrate containing ethylene glycol, based on low silicate compounds with nitrite and molybdate components, especially suitable for "heavy duty" applications.

ASTM D6210, ASTM D3306, ASTM D4985, Caterpillar EC-1, Cummins CES 14603, Cummins SB 3666132, Detroit Diesel Corporation 7SE298, TMC RP329 Type A

Art. No.: 1410115



RAVENOL HDT Heavy Duty Truck Cool. Premix -40°C

Pre-mixed coolant concentrate containing ethylene glycol, based on low silicate compounds with nitrite and molybdate components, especially suitable for "heavy duty" applications.

ASTM D6210, ASTM D3306, ASTM D4985, Caterpillar EC-1, Cummins CES 14603, Cummins SB 3666132, Detroit Diesel Corporation 7SE298, TMC RP329 Type A.

Art. No.: 1410116

Coolant Product Finder

Passenger car

Brand	Model	Construction year		Coolant + antifreeze recommendation	
		From	To		
Alfa Romeo	all models	1976	2005	TTC	Protect C11
	all models	2005		OTC	Protect C12+
Audi	all models	1981	1996	TTC	Protect C11
	all models	1996	2008	OTC	Protect C12+
	all models	2007		HTC	Protect MB325.0
	all models	2008		LGC	Protect C13
Bentley	all models	1980	2005	TTC	Protect C11
	all models	2005	2008	OTC	Protect C12+
	all models	2008		LGC	Protect C13
BMW	all models	1975		TTC	Protect C11
	all models	2007		HTC	Protect MB325.0
Chevrolet	all models	2001		OTC	Protect C12+
Chrysler	all models	1985	2007	TTC	Protect C11
	all models	2008		OTC	Protect C12+
Citroën	all models	1993		OTC	Protect C12+
Dacia	all models	2005		OTC	Protect C12+
Daihatsu	all models	1979	1998	HJC	Protect FL22
	all models	1999		OTC	Protect C12+
Dodge	all models	1985	2007	TTC	Protect C11
	all models	2008		OTC	Protect C12+
Ferrari	all models	1979	2005	TTC	Protect C11
	all models	2005		OTC	Protect C12+
Fiat	all models	1982	2005	TTC	Protect C11
	all models	2005		OTC	Protect C12+
Ford	all models		1997	TTC	Protect C11
	all models	1998	2006	OTC	Protect C12+
	all models	2007		HTC	Protect MB325.0
Honda	all models	1983	1998	HJC	Protect FL22
	all models	1999	2006	OTC	Protect C12+
	all models	2007		HTC	Protect MB325.0
Hyundai	all models	1983	1998	HJC	Protect FL22
	all models	1999		OTC	Protect C12+
Jaguar	all models	1986	1999	TTC	Protect C11
	all models	1999		OTC	Protect C12+
	all models	2007		HTC	Protect MB325.0
Jeep	all models	1976	1998	TTC	Protect C11
	all models	1999		OTC	Protect C12+

Brand	Model	Construction year		Coolant + antifreeze recommendation	
		From	To		
KIA	all models	1991	1998	HJC	Protect FL22
	all models	1999		OTC	Protect C12+
Lada	all models			TTC	Protect C11
Lancia	all models	1976	2005	TTC	Protect C11
	all models	2005		OTC	Protect C12+
Land Rover	Freelander, Discovery, Defender, Range Rover	1998		OTC	Protect C12+
	Range Rover V8 and Diesel	1998	2005	TTC	Protect C11
	all models	2007		HTC	Protect MB325.0
Lexus	all models	1994		OTC	Protect C12+
Lotus	all models	1980	1999	TTC	Protect C11
	all models	2000		OTC	Protect C12+
Mazda	all models	1977		HJC	Protect FL22
Mahindra	all models			HJC	Protect FL22
Mercedes	all models	1976		TTC	Protect C11
	all models	2007		HTC	Protect MB325.0
MG Rover	all models	1982	1997	TTC	Protect C11
	all models	1998		OTC	Protect C12+
MINI	with petrol engine	2001		TTC	Protect C11
	Diesel	2007		OTC	Protect C12+
Mitsubishi	all models	1982		OTC	Protect C12+
	Carisma	1996	2004	HJC	Protect FL22
	Colt	2004	2007	HJC	Protect FL22
Morgan	all models			TTC	Protect C11
Nissan	all models	1982	1997	HJC	Protect FL22
	all models	1998		OTC	Protect C12+
Opel	all models	1975	2000	TTC	Protect C11
	all models	2001		OTC	Protect C12+
	all models	2007		HTC	Protect MB325.0
Peugeot	all models	1993	1997	TTC	Protect C11
	all models	2008		OTC	Protect C12+
Porsche	all models (except 911)		1995	TTC	Protect C11
	all models	1996		OTC	Protect C12+
	911, Boxster, Cayman, Cayenne, Panamera	1997		LGC	Protect C13
	all models	2007		HTC	Protect MB325.0
Renault	all models	1985	1997	TTC	Protect C11
	all models	1998	2006	OTC	Protect C12+
	all models	2007		HTC	Protect MB325.0
Rolls-Royce	all models	1998		TTC	Protect C11
Rover	all models	2007		HTC	Protect MB325.0

Brand	Model	Construction year		Coolant + antifreeze recommendation	
		From	To		
Saab	all models	1975	2000	TTC	Protect C11
	all models	2001		OTC	Protect C12+
	all models	2007		HTC	Protect MB325.0
Saturn	all models			HTC	Protect MB325.0
Seat	all models	1985	1996	TTC	Protect C11
	all models	1997	2007	OTC	Protect C12+
	all models	2008		LGC	Protect C13
Skoda	all models	1989	1998	TTC	Protect C11
	all models	1998	2008	OTC	Protect C12+
	all models	2008		LGC	Protect C13
Smart	all models	1998		TTC	Protect C11
Subaru	all models	1977	1999	HJC	Protect FL22
	all models	2000		OTC	Protect C12+
Suzuki	all models	1981	1999	HJC	Protect FL22
	all models	2000		OTC	Protect C12+
Toyota	all models	1978	1999	HJC	Protect FL22
	all models	2000		OTC	Protect C12+
Volkswagen	all models	1975	1996	TTC	Protect C11
	all models	1997	2008	OTC	Protect C12+
	all models	2008		LGC	Protect C13
Volvo	all models	1982		TTC	Protect C11

HGV

Brand	Model	Construction year		Coolant + antifreeze recommendation	
		From	To		
Avia trucks	all models			TTC	Protect C11
Cummins	all models			HDT/LTC	Protect C12++
Daewoo	all models			OTC	Protect C12+
DAF	all models			OTC	Protect C12+
Freightliner	all models			TTC	Protect C11
GMC	all models			TTC	Protect C11
Iveco	all models			TTC	Protect C11
Kenworth	all models			TTC	Protect C11
LIAZ	all models			TTC	Protect C11
Mack	all models			TTC	Protect C11
MAN	all models		Nov 11	TTC	Protect C11
	all models	Dec 11		LTC	Protect C12++
Mercedes-Benz	all models		Sep 11	TTC	Protect C11
	all models	Oct 11		LTC	Protect C12++

Brand	Model	Construction year		Coolant + antifreeze recommendation	
		From	To		
Mitsubishi Fuso	all models			OTC	Protect C12+
Nissan	all models			OTC	Protect C12+
Pegaso	all models			TTC	Protect C11
Peterbilt	all models			TTC	Protect C11
Renault	all models			OTC	Protect C12+
Sisu	all models			TTC	Protect C11
Tatra	all models			TTC	Protect C11
Ural	all models			TTC	Protect C11
Volvo	all models		2005	TTC	Protect C11
	all models	2006		OTC	Protect C12+

Engines

Brand	Model	Construction year		Coolant + antifreeze recommendation	
		From	To		
Cummins	all models			LTC	Protect C12++
	all models			OTC	Protect C12+
DAF	all models			TTC	Protect C11
Deutz	all models			TTC	Protect C11
MAN	all models			TTC	Protect C11
	all models			LTC	Protect C12++
Mercedes-Benz	all models			TTC	Protect C11
	all models			LTC	Protect C12++
MTU	all models			TTC	Protect C11
	all models (alternative)			OTC	Protect C12+
Perkins	all models			TTC	Protect C11

Construction machinery & Tractors

Brand	Model	Construction year		Coolant + antifreeze recommendation	
		From	To		
ATLAS	all models			TTC	Protect C11
CNH	all models			TTC	Protect C11
Demag	all models			TTC	Protect C11
Fendt	all models			TTC	Protect C11
GINAF	all models			OTC	Protect C12+
Gottwald	all models			TTC	Protect C11
Grove	all models			TTC	Protect C11
Hiab	all models			TTC	Protect C11
John Deere	all models			TTC	Protect C11
Jonsered	all models			TTC	Protect C11
Liebherr	all models			TTC	Protect C11

Winter chemicals

With RAVENOL winter care products, winter is welcome – no problem for your car. Our windscreen washer products are available both as concentrate and in a ready-to-use format for cars.



RAVENOL Scheibenfrostschutz Konzentrat

A concentrate for car windscreen washer systems. Use according to the mixing table. Suitable for polycarbonate windscreens, paint-compatible, suitable for fan nozzles.

Art. No.: 1420100



RAVENOL Scheibenfrostschutz -20°C

Ready-to-use winter windscreen de-icer based on alcohol with a particularly pleasant CITRUS fragrance with frost protection down to -20°C.

Art. No.: 1420103



RAVENOL Antifrost-Enteiser

Spray for removing frost, snow and ice from car windows and headlights.

Art. No.: 1420217



RAVENOL Frostschutz für Druckluftbremsen

Prevents air brake systems from freezing in winter.

Art. No.: 1430208



RAVENOL Fließverbesserer

Diesel fuel and heating oil additive for protection against cold-related paraffin separation.

Art. No.: 1430220



RAVENOL Türschloss-Enteiser

Defrosts frozen door locks and protects from further ice formation. With rust and corrosion protection.

Art. No.: 1430203

Manufacturer specifications

Engine oils

BMW	
Longlife-01 (LL-01)	Engine oil for all older petrol engines, minimum requirement from MY 2002
Longlife-04 (LL-04)	Engine oil for all diesel engines in certain areas with or without particle filters
Longlife-01 FE (LL-01 FE)	Engine oil for certain newer petrol engines from MY 2001
Longlife-12 FE (LL-12 FE)	Engine oil for certain diesel engines from MY 2013
Longlife-14 FE (LL-14 FE)	Engine oil for certain petrol engines from MY2014 for most European countries, USA, Canada
Longlife-17 FE (LL-17 FE)	Engine oil for certain petrol engines from MY 2014 worldwide with the exception of BMW M GmbH
Mercedes-Benz	
MB 226.9	Multigrade engine oils for gas engines (CNG) on the basis of BR 300/400
MB 228.0/1	Engine oils for diesel engines, increased requirements according to ACEA E2, SHPD engine oils, normal performance capacity. 228.0: Single grade oil/228.1: Multigrade oil
MB 228.2/3	SHPD engine oils for highly supercharged diesel engines with increased requirements according to ACEA E7, extended oil change intervals up to 45,000 km 228.2: Single grade oil/228.3: Multigrade oil
MB 228.31	Multigrade engine oils for diesel engines in commercial vehicles and buses with and without particle filters with EURO 3, 4 and 5 with LOW SPash technology.
MB 228.5	UHPD engine oils (Ultra High Performance Diesel) for highly turbocharged diesel engines, extended oil change intervals in the light category up to 45,000 km. Up to 160,000 km are possible in the heavy category (service interval display).
MB 228.51	UHPD engine oils in line with MB 228.5 with particular requirements for diesel particle filters for EURO IV, LOW SPash technology.
MB 229.1	Multigrade engine oils for passenger cars (petrol and diesel engines). Increased requirements with regard to ACEA A3-04 and B3-04 sizes
MB 229.3	Multigrade engine oils for passenger cars (highest performance for diesel engines).
MB 229.31	Multigrade engine oils for passenger cars with diesel particle filters. LOW SPash technology.
MB 229.5	Multigrade engine oils for passenger cars with extended oil change intervals (20,000 km), reduced emission of pollutants.
MB 229.51	Multigrade engine oils for diesel engines with extended oil change intervals and service interval display. LOW SPash technology. Increased requirements according to ACEA A3-04, B4-04, C3-04.
Volkswagen//Audi	
VW 502 00	Low friction oils for petrol engines subject to more strenuous conditions, high performance capacity. Replaces VW 501 01 and 500 00
VW 503 00	Passenger car petrol engines with extended service intervals. Exceeds the requirements of VW 502 00 (HTHS 2.9 mPa*s).
VW 503 01	Norm for turbocharged petrol engines in passenger cars with extended service intervals (ESI) e.g. Audi S3, TT (HTHS >3.5 mPa*s).
VW 504 00	VW norm for vehicles with long life service. For petrol engines, replaces VW 503 00 and 503 01
VW 505 00	Year-round engine oils for turbocharged and non-turbocharged diesel engines.
VW 505 01	Conventional multigrade engine oils without low friction characteristics for petrol and SDI engines. LL diesel engine oils with service interval extension from model year 2000. New norm for diesel engines.
VW 506 00	Engines with extended service intervals (ESI: 50,000 km, 2 years, HTHS 2.9 mPa*s).
VW 506 01	For pump-nozzle injection diesel engines with extended service intervals (ESI).
VW 507 00	VW norm for vehicles with long life service. For petrol and diesel pump-nozzle engines, backwards-compatible to construction year 2000, with the exception of V10 and RS engines prior to construction year 2006.
VW 508 00	VW norm for newly developed low consumption petrol engines with extended service intervals (longlife service). These engine oils are only available with viscosity 0W-20. They are not backwards-compatible with older specifications/engines.
VW 509 00	VW norm for newly developed low consumption diesel engines with extended service intervals (long life service). These engine oils are only available with viscosity 0W-20. They are not backwards-compatible with older specifications/engines.
VW 511 00	VW standard for special petrol engines according to the owner's manual.

Porsche	
A40	Porsche specification (corresponds to Porsche standard for all Porsche petrol vehicles from model year 1994) for sports vehicles, Panamera S / Turbo, Cayenne S / Turbo / GTS SAE 0W-40, SAE 5W-40, SAE 5W-50, Cayenne (V6) SAE 0 / 5W-40 is not permitted for Cayenne Diesel.
C20	Porsche specification corresponding to VW 508 00 / 509 00 for SAE 0W-20 oils.
C30	Porsche specification (corresponding to VW 504 00 / 507 00) only for Cayenne (V6) SAE 5W-30 - not for China-, for petrol (with ESI) and diesel.
C40	Porsche Specification (acc. to VW 511 00) only petrol engines according to the owner's manual.
MAN	
MAN 270	Single grade engine oils for turbocharged and non-turbocharged diesel engines.
MAN 271	Single grade engine oils for turbocharged and non-turbocharged diesel engines.
MAN M 3275	SHPD engine oils (super high performance diesel) for all diesel engines and extended oil change intervals up to 45,000 km. M 3275-1: Multigrade engine oil / M 3275-2: Single grade engine oil.
MAN M 3277	UHPD engine oils (ultra high performance diesel) for all diesel engines and extended oil change intervals up to 80,000 km.
MAN M 3477	MHPD engine oils (mega high performance diesel) for HGV engines for exhaust gas aftertreatment. Low ash content required.
MAN M 3677	Specification for super high performance engine oils, for extended oil change intervals for Euro VI engines with viscosity SAE 5W-30.
MAN M 3271-1	Engine oil for engines that operate with gas (natural, propane or butane gas).
MAN M 3575	High performance diesel engine oil.
Opel	
GM-LL A-025	Petrol vehicles with long oil change intervals.
GM-LL B-025	Diesel vehicles with long oil change intervals.
dexos1™ Gen 2	Replaces the old dexos1™ specification for petrol engines with high requirements of the 2nd generation.
dexos2™	GM specification for petrol and diesel engines. Backwards-compatible with previous specifications, replacing them.

Gear oils for manual gearboxes and drive axles

Mercedes-Benz	
MB 235.0	Only for SAE 90, 85W-90 oils, API GL-5
MB 235.1	Only for SAE 80W, 80W-85, 85W-90, API GL-4
MB 235.4	For fully synthetic SAE 75W-85 oil, API GL-4 (alternative – MB 235.1)
MB 235.5	MB 235.1 lubricant oils, extended oil change intervals
MB 235.6	MB 235.0 lubricant oils, extended oil change intervals
MB 235.7	Rear axle gear oil, only for SAE 85W-90, API GL-5
MB 235.8	Fully-synthetic oils SAE 75W-90, API GL-5
MB 235.9	Special fully synthetic SAE oils SAE 75W-90 for axle drives AG 4. MC axle drive oil A 001 989 2503
MB 235.10	Special fully-synthetic oils SAE 75W-80, API GL-4 MB manual gear oil A 001 989 2603
MB 235.11	Special fully-synthetic oils SAE 75W-90, API GL-4 MB manual gearbox oil A 001 989 2803
MB 235.12	Engine oils SAE 30 SAE 40 as transmission fluid in tropical zones
MB 235.13	Fully synthetic gear oils for HGV manual gearboxes SAE 50
MB 235.15	Hypoid oils SAE 75W-85 for wheel gears of rear axles of type 164
MB 235.20	Mineral oil-based hypoid oils SAE 80W-90 for HL6 drives
MB 235.27	Gear oils for retarders, category Voith A
MB 235.28	Commercial vehicle retarder oils, category Voith B (specification 235.28)
MB 235.29	Commercial vehicle retarder oils, category Voith C (specification 235.29)
MB 235.61	Fully synthetic gear oils SAE 75W-140 for AMG

Volkswagen	
VW 501 50	Special gear oils for 5-speed transmissions
G 052	SAE 75W-90, No. G 052 911 A, G 052 180 A2, G 052 190 A2, G 052 175 A1
MAN	
MAN 341 Type VR	High pressure gear oil, suitable for Voith retarder and Eaton-Fuller transmission
MAN 341 Type Z2, Z4, Z5	High pressure gear oil with ZF specification
MAN 341 Type E1-4	High pressure gear oil with Eaton-Fuller specification
MAN 342 Type M1-3	Highest pressure gear oil
MAN 342 Type S1	Highest pressure gear oil
MAN 3343 Type M	Multi-function gear oil
MAN 3342 Type S	Multi-function gear oil

Transmission oils for automatic transmissions

Mercedes-Benz	
MB 236.1	Transmission oil with DEXRON III specification (formerly DEXRON DII)
MB 236.2	Transmission oil with ATF Type A Suffix A specification (with the exception of the A-class front transmission)
MB 236.3	Special oil MB 000 989 88 03 for S-Class W220 power steering; for L075 Z power steering
MB 236.5	Transmission oil with specification Allison C4
MB 236.6/236.7	Transmission oil with DEXRON III specification (formerly DEXRON DII)
MB 236.8	Transmission oil with DEXRON II-E, Allison C4, ZF TE-ML 14 specification
MB 236.81	Transmission oil with ZF TE-ML 09, 14 specification
MB 236.9	Transmission oil with DEXRON FIII specification
MB 236.10	Special oil MB 001 989 21 03 for automatic transmissions with GKÜB
MB 236.11	Special oil MB 001 989 22 03 for automatic transmissions from ZF 4 HP 20 and VW AG4
MB 236.12	Special oil for seven-speed automatic transmission (NAG-2)
MB 236.13	Service automatic gear oils
MB 236.14	ATF liquid gear oils for 5-speed automatic transmissions with regulated converter lockup clutch and 7-speed automatic transmissions
MB 236.15	ATF automatic transmission fluids for 7-speed automatic transmissions
MB 236 17	ATF automatic transmission fluids for 9-speed automatic transmissions
MB 236.20	Fluids for CVT transmissions
MB 236.41	Transmission oil for ML class hybrid (type: 164.195 Transmissions: 722.550)
MB 236.91	ATF automatic transmission fluids for Allison transmissions
MAN	
MAN 339 Type V1-2	Automatic transmission fluids with Voith specification
MAN 339 Type Z1-4	Automatic transmission fluids with ZF specification
ZF	
TE-ML 01	Manual gearboxes for HGVs and buses with type plate entry "TE-ML 01"
TE-ML 02	Manual gearboxes and automatic transmissions for HGVs, buses and light commercial vehicles with type plate entry "TE-ML 02"

TE-ML 03	Transmissions for machinery (construction machines, special vehicles, fork lift trucks)
TE-ML 04	Ship transmissions
TE-ML 05	Axes for machinery
TE-ML 06	Tractor drives and lifting hydraulics
TE-ML 07	Hydrostatic-mechanical and electrical drives
TE-ML 08	Mechanical drives for passenger cars, commercial vehicles and machinery
TE-ML 09	Drives and oil pumps for passenger cars, commercial vehicles and machinery
TE-ML 11	Mechanical gearboxes, dual clutch gears and automatic transmissions for passenger cars
TE-ML 12	Axes and wheel heads for buses
TE-ML 13	ZF aggregates in special vehicles
TE-ML 14	Powershift transmissions, Ecomat type, for buses, HGVs and special vehicles
TE-ML 15	Braking systems for special vehicles
TE-ML 16	Gearboxes for rail vehicles
TE-ML 17	Gearboxes and axes for fork lift trucks
TE-ML 18	Axes for passenger cars
TE-ML 19	Distributors and offset gearboxes for commercial vehicles
TE-ML 20	Powershift transmissions EcoLife type for buses
TE-ML 21	Tractor front axles, gearboxes for harvesters and end drives
TE-ML 23	Stationary applications
TE-ML 24	Historical manual gearboxes for HGVs and passenger cars

Lubricants

MAN	
MAN 283 Li-P 0	Multi-purpose mineral oil based grease, NLGI category 0
MAN 283 Li-P 0-B	Multi-purpose grease (biodegradable), NLGI category 0
MAN 283 Li-P 000 000	Multi-purpose mineral oil based grease, NLGI category 00/000
MAN 283 Li-P 00/000-B	Multi-purpose grease (biodegradable), NLGI category 00/000
MAN 283 Li-P 2	Multi-purpose mineral oil based grease, NLGI category 2
MAN 283 Li-P 2-B	Multi-purpose grease (biodegradable), NLGI category 2
MAN 284 Li-H 2	High temperature grease, NLGI category 2
MAN 285 Li-PF 2	Multi-purpose grease
Mercedes-Benz	
MB 264.0	Fluid greases (NLGI category 00/000, specification 264.0)
MB 265.1	High-temperature roller bearing grease (NLGI category 2, specification 265.1)
MB 266.0	Lubricating greases (NLGI category 1, specification 266.0)
MB 266.2	Durable lubricating greases (NLGI category 2, specification 266.2)
MB 267.0	Multi-purpose greases (NLGI category 2, specification 267.0)
MB 267.1	Wheel bearing greases (NLGI category 2, specification 267.1)
MB 268.0	Leaf spring greases (specification 268.0)
MB 269.2	Complex greases, lubricating pastes (NLGI category 2, specification 269.2)

Coolant + anti-freeze

VW Group: Audi, Seat, Skoda, VW	TL 774-C = G11 (1989 ...1996)
	TL 774-F = G12 + (1996 -->)
	TL 774-G = G12 ++ (2009 -->)
	TL 774-J = G13 (2010 -->)
BMW	M 600 69.0
FORD	WSS-M97B44-D (lilac), WSS-M97B51-A1 (yellow)
JAGUAR	WSS-M97B44-D (lilac)
MERCEDES-BENZ	MB 326.0, 326.3, 326.5, 326.6 (pre-mixed) (1988 -->)
	MB 325.2, 325.3, 325.5, 325.6 (non-thinned) (1988 -->)
	MB 326.0, 326.3, 326.5, 326.6 (pre-mixed) (1988 -->)
PORSCHE	Glysantin Dynamic Protect G40 (corresponds to VW TL 774) = G 13)
SAAB	SAAB Original Coolant (--> 2001)
	SAAB Longlife Coolant (2000 -->)
VOLVO	VOLVO Coolant
MAN	MAN 324 (N, N / Arctic, NF, Si-OAT, SNF)
JOHN DEERE	JDM H5 (1971-1984)
	JDM H24A2 (1984 -->) ASTM D4985

Brake fluids

MB 331.0	Brake fluid DOT 4 Plus
MB 331.1	Brake fluid DOT 4 Type 200



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