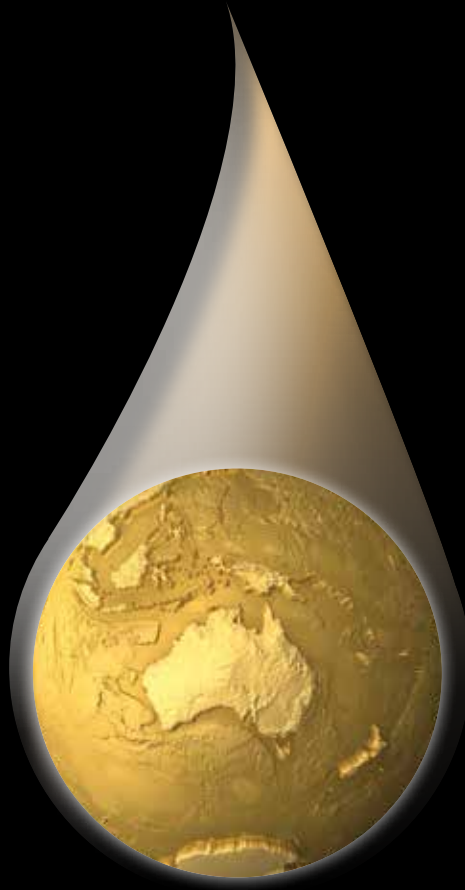




A Better Class of Oil



DEFENCE PRODUCTS

Proudly Australian since 1926

In association with



interchem

APRIL 2015

Interchem and Penrite

Interchem has been a valued supplier to Penrite for many years with the management of both companies having an even longer association.

In 2010, Interchem approached Penrite to assist with quoting the appropriate Penrite products for the Australian Department of Defence tender for Oils, Lubricants & Allied Products. This was a logical fit for both companies, combining Interchem's strengths with Nyco military and aviation products and Penrite's strong manufacturing capability and technology for conventional lubricants.

Interchem has been under contract to supply the Australian Department of Defence since the late 1990's and is a **Defence Recognised Supplier**.

The success of the **Penrite/Interchem** relationship ensures effective solution based outcomes for the respective customer bases.

The full range of Penrite products can be purchased through Interchem as can many Nyco products through Penrite.

Please note that only Interchem can supply products for aviation use.



A Better Class of Oil for 88 years...

From small beginnings in 1926, Les Mecoles founded Penrite Oil Company, soon purchasing his first factory in Melbourne, Australia, manufacturing high quality lubricants from Pennsylvania base stocks, regarded at the time as the best in the world.

In 1979, due to ill health, Les sold the company to John Dymond, Lubrizol's Australian National Sales Manager, a mechanical engineer by trade and a car enthusiast at heart, who rapidly expanded the Penrite range of products. John's technical background and commitment to quality ensured that Penrite continued to produce the highest quality product for every application and this philosophy, implemented by John in 1979, remains a core value of the company to this day.

Establishing Team Penrite in the early 80's, John was able to complete all the R & D requirements for his products on the race track, not only with cars, but also bikes, karts and trucks!

Driven by his "every product, every application, every customer" philosophy John expanded and developed the capabilities and capacity of the business to produce specific products for any market, effectively ensuring Penrite has every industry segment covered.

Supported by the largest range of speciality products and all backed up with a 100% product guarantee, John established a product range and brand that is, today, synonymous for its high quality and reliability.

For 88 years Penrite has been family owned and managed. Today, Toby and Nigel Dymond manage this World Wide business from Melbourne, Australia, taking John's technical knowledge, his passion and his philosophy forward into the future.



The Penrite Brand

Penrite blend and market a wide range of lubricants and we are continuously developing our range. We have strong international technology partners from all over the globe which allows us to offer products to suit most applications.



Our logo has evolved over the years to its current form to emulate our motto
 "Penrite - A Better Class of Oil"

A Better Class of Oil

Our Vision & Mission

Vision: To deliver innovative and tailored lubricant products and services to our customers globally.

Mission: To partner with our customers to deliver sustainable and long term growth through our passion and commitment to excellent service, delivery and product quality.

Company Information

Penrite Oil Company Pty Ltd is one of the largest independent oil blenders and marketers in Australia. We are a 100% Australian, family owned business with 88 years of industry experience.



Our Head Office is in Wantirna South, Melbourne, the capital of Victoria, Australia. Our main markets are in Australia, New Zealand & United Kingdom. In addition we sell our products in Europe, Asia and America.

Environmental Commitment

We're committed to conduct our world-wide business in a manner that is environmentally responsible. Our ultimate aspiration is to minimise the environmental impact of its manufacturing and sales and distribution operations.

Penrite strives to minimise this environmental impact by reducing emissions and developing safe and sustainable, production, storage and distribution methodologies.



The key parts of this environmental commitment and as a signatory to the Australian Packaging Covenant include:

- Using recyclable packaging
- Compliance with environmental laws, regulations and licences
- Ensure environmentally responsible behaviour is practiced within Penrite
- Recycling product packaging
- Minimise waste and conserve resources
- Explore opportunities for waste recycling and recovery

Approvals

Penrite has a number of products that are approved by major manufacturers or registered with industry bodies. Below are examples of some of our many approvals.



Business Partners

Penrite believes that our business partners are one of the keys to our success. Our commitment is to treat all suppliers, customers, and other partners in our business ethically, honestly, and with respect.

From the perspective of our customers, our philosophy is that while every customer is a partner with us in the joint success of our businesses, each has specific needs and must be treated individually. A “one offer fits all” approach will not permit our customers to maximise the potential of their oil business with us.

Technical Services

Having the right product for the right application is nowadays critical to the customer and to Penrite. We have an extensive database of equipment to enable the correct product to be selected.

This is accessible in many ways:

Self Service

- Web Based Recommendation Guide
- Printed Recommendation Guide
- Mobile Guide available from your smart phone application
- Technical bulletins

or

Talk to us

The Technical Services Hotline is available 7 days a week and is based in Melbourne Australia. Our Technical Services Experts have extensive experience and knowledge of lubricants and applications. They also have access to additional resources for the less commonly available or even historical equipment as well as product equivalents.

Help Line: 1300 PENRITE (1300 736 748), (+613 9801 0877 International) or you can email us at lubetech@penriteoil.com

Other Technical Services offered to all customers include:

- Lubrication Surveys
- Client Data Base Updates
- Safety Data Sheets
- Product Training

Penrite guarantee the performance of all our products when used in the correct applications as specified in our Recommendations Listing and Product Information Sheets.



Interchem History



Interchem Pty Ltd was founded as International Chemicals Pty Ltd in 1992 by owners Ken Lardner and John Sewell. As business partners for over 32 years they successfully operated Chemical and Petroleum Industries until its acquisition by Pennzoil USA in 1989. This considerable business and industry experience has provided competitive foundations in which to build a respectable portfolio of specialty chemicals. Today, Interchem is a highly reliable company, dedicated to the importation, sale and distribution of chemical raw materials into the Australian and NZ markets.

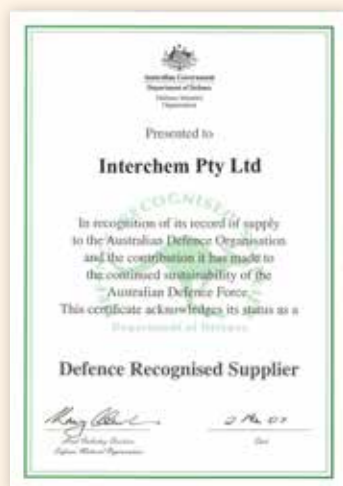
Interchem is tightly integrated with Nyco and they work closely together to meet the necessarily strict requirements of the Australian Department of Defence. Nyco manufactures its own ester base stocks to produce high quality products for all three armed forces - Army, Navy, Air Force.

Nyco's lubricants portfolio for military applications, although primarily based on synthetic esters products, also includes a range of mineral oils. The high thermal stability, low volatility and the outstanding low temperature fluidity of the synthetic base stocks account for their selection in the formulation of lubricants for equipment operating over a very wide range of temperatures including extremes of low and high temperature.

Nyco produces over 160 products for Defence including turbine oils, hydraulic fluids, greases, lubricants and protective fluids. Nyco products are approved by the major European & American Military authorities: US Department of Defense, British, French, Belgium, German, and Italian Ministries of Defence.

Interchem is a supplier of specialty chemicals, intermediates and raw materials for a broad range of industrial applications, from plastics to mining and aviation to pharmaceutical. Based in Melbourne, the company represents a number of leading chemical producers from around the world and draws on unrivalled technical support to assist its customers in meeting their needs.

Our diversity is our strength, our motivation is to continually source new and improved products to better service the Australian industry. The company maintains a Quality Assurance Services Accreditation to AS/NZS ISO 9001:2008 and is an approved supplier to the Department of Defence.



Proudly Australian Since 1926



A Better Class of Oil



Product List

In association with



interchem

DIESEL ENGINE OILS

ENVIRO+ 10W-40

Penrite Enviro Plus 10W-40 is a state-of-the-art, fully synthetic, European style extended drain, ultra high performance (UHPD) diesel oil formulated with additives of the highest standards to ensure protection against wear, corrosion, oil oxidation and sludge. Penrite Enviro Plus 10W-40 meets the requirements of ACEA E4/E6/E9 and API CJ-4/SM. Penrite Enviro Plus 10W-40 is primarily designed for use in modern four-stroke naturally aspirated and turbocharged European diesel engines including for extended drain intervals. A 12.2 TBN oil, Enviro Plus 10W-40 has been optimised to lubricate the latest Euro IV and Euro V emissions European diesel engines. Approvals: Cummins CES 20081, MB-Approval 228.51, Mack EO-O Premium Plus, Volvo VDS 4, Renault RLD-3, JASO DH-2 (On-File).



DIESEL HD

Penrite Diesel HD is an SAE 15W-40 high performance, heavy duty, low ash mineral diesel engine oil for use with and without DPF and SCR Systems. It is made from a combination of hydrocracked base stocks and the latest OEM approved additive technology. Diesel HD exceeds the latest requirements of API CJ-4/SM and the European ACEA E9 and carries many formal OEM approvals. Diesel HD is designed for use in post 2006, EPA 07 compliant American diesel engines, both naturally aspirated and turbocharged, introduced to meet the new Australian ADR emissions regulations. May also be used in Euro IV and Euro V compliant engines. Meeting and exceeding the European ACEA E9 specification as well as Japanese JASO DH-2, Diesel HD is an ideal mixed fleet oil and can be used for normal drain intervals in European and Japanese diesel engines. It is ideal for use in high speed and some medium speed diesel engines used in marine environments. Approvals: Cummins CES 20081, MAN 3575, MB-Approval 228.31, Mack EO-O Premium Plus, Volvo VDS 4, Renault RLD-3, Detroit Diesel DFS Oil Specification 93K218 Conformance



DIESEL FX

Penrite Diesel FX is a SAE 15W-40 mid ash, diesel engine oil formulated with high quality additives and hydrocracked mineral oils. Diesel FX exceeds the requirements of API CI-4 PLUS/SL and ACEA A3/B3/E7. It is designed predominantly for use in four stroke heavy duty diesel engines. It can be used in both turbocharged and naturally aspirated engines in on-highway and off-highway applications. Diesel FX is ideal for use in mixed fleets on heavy duty vehicles where API CI-4 PLUS or lower and ACEA E7/E5 is specified by the manufacturer. The strong petrol and ACEA light duty (A3/B3) performance makes Diesel FX suitable for use in light duty petrol and diesel engines, including those from Europe. It is an ideal for use in high speed and some medium speed, diesel engines used in marine environments as well for pumps and gensets.



MARINE DIESEL 15W-40

Penrite Marine Diesel 15W-40 is an SAE 15W-40, semi-synthetic, mid ash marine diesel engine oil formulated with a carefully selected blend of high performance additives and a mix of mineral and synthetic base oils to provide complete protection for marine engines. It exceeds the requirements of API CI-4 and ACEA E4/E7 industry standards and also meets many marine engine manufacturers' performance specifications, including long oil drain requirements. Marine Diesel 15W-40 is designed for use in moderate to severe service, high speed and some medium speed four stroke European, U.S. and Japanese marine diesel engines, where a 15W-40 engine oil is required. It can be used in both turbocharged and naturally aspirated engines running either low or high sulphur diesel fuel. It is especially suited to coastal and fishing fleets but can also be used in recreational craft. Marine Diesel 15W-40 is formulated with additive technology that is highlighted by the inclusion of special corrosion inhibitors as well as a high 12.6 TBN, allowing it to achieve long oil drain intervals while providing outstanding engine protection for the life of the oil drain.



MONO TRUCK 30, 40 AND 50

Penrite Mono Truck oils are designed for use in all engines that require a monograde oil, including pre 1983 Japanese engines (Mono Truck SAE 30) and Detroit Diesel Two Stroke engines. It is also suitable for many older design small diesel engines used in fishing boats and trawlers, and in stationary engines. The SAE 30 grade may also be used in Komatsu powershift transmissions and Allison transmissions requiring Allison C3 oils. The SAE 40 grade (API CF-2) is primarily designed for use in Detroit Diesel Two Stroke engines. The SAE 50 grade (API CF-2) is recommended in higher ambient conditions and may also be used in manual transmissions requiring API GL1 90 or API CC/CD 50 engine oils. It is the only viscosity grade that should be used in Detroit Series 149 engines.



TRANSMISSION FLUIDS AND AUTOMOTIVE TYPE GEAR OILS

SYNFLEET 50

Penrite Synfleet 50 is a next generation, premium fully synthetic, heavy duty transmission oil for warranty service of transmissions in severe duty applications. It is manufactured using an advanced additive system and a combination of synthetic base fluids to provide extended drain life and improve equipment life. It is approved and listed by EATON against specification PS-164 Rev 7. Penrite Synfleet 50 is designed for use in heavy duty transmissions in on and off highway applications. It is particularly suitable for use in Road Ranger, Volvo, Mack, Spicer and many other transmissions operating in severe service conditions that require this type of oil. Can also be used in track roller, reduction hubs and industrial transmissions that specify SAE 50 oils.



TRACTOR TRANSMISSION AND HYDRAULIC OIL

Multipurpose tractor transmission fluid manufactured using highly refined base oils and an advanced additive package. It meets the requirements of Ford M2C-134D, Case Hytrans Plus, JD 20C/D and API GL-4 as well as many others. Penrite Tractor Transmission and Hydraulic Oil is designed for use in the transmissions, hydraulics, PTOs and some final drives of farm tractors and construction equipment, especially those utilising wet brake systems. Can be used as a hydraulic oil where ISO 68 grades are specified.



FLEET GEAR 10, 30 AND 50

Multipurpose transmission, hydraulic and final drive oils manufactured from highly refined mineral oils and selected additives to provide excellent performance in a wide range of heavy duty equipment in both on and off highway service.

FLEET GEAR 10 is recommended for use in Allison transmissions (except W series which must use Penrite ATF DX 3) and in other transmissions that require SAE 10W engine oils. It is also ideally suited for hydraulic systems in equipment that require the use of ISO 32, ISO 46 or SAE 10W oils.

FLEET-GEAR 30 is recommended for use in all Caterpillar transmissions that require SAE 30 grades, Komatsu Powershift and Allison (except W Series) transmissions in severe service or high ambient conditions. It is ideal for use in transmissions that require API CD or CF/SAE 30 oils and in Caterpillar/Komatsu final drives that require SAE 30 grades.

FLEET-GEAR 50 is recommended for use in the final drives of Caterpillar equipment that specify this grade and in a wide range of manual transmissions that require CD50 engine oils and/or GL-1 90 to GL-3 90 gear oils. These include Dana-Spicer, Eaton Fuller (Roadranger) and Volvo.



ATF DX3

Advanced technology, long-drain automatic transmission fluid meeting the requirements of DEXRON®-IIIH. (released June 2003). It is manufactured from the latest additive technology and advanced hydrocracked base oils along with a European standard viscosity modifier to minimize shear loss. May be used in car and light truck automatic transmissions, heavy duty automatic transmissions, power steering units, rotary vane and screw type air compressors, hydraulic systems and manual transmissions where this type of fluid is specified.



GEAR OIL 80W-90, 85W-140 AND 140

Gear Oil 80W-90 are premium mineral automotive gear oil manufactured with modern extreme pressure additives and friction modifiers, meeting the requirements of API GL-5/6 and MT-1, as well as many other manufacturer specifications. They are designed for use in differentials, both hypoid and limited slip, manual gearboxes, transfer cases and transaxles in passenger cars, light commercials, 4WDs, trucks, construction, earthmoving and agricultural equipment. It provides a superior level of protection in heavy duty conditions including shock loads, preventing wear and maintaining the life of critical parts. The multi-purpose formulation allows greater flexibility while minimising inventory levels, especially for differential applications. Gear Oil 140 is particularly recommended in higher ambient conditions, or for quietening noisy differentials where the noise is due to wear, thus prolonging the life of the unit before rebuild is required. It provides a superior level of protection in heavy duty applications, where shock load conditions can be extreme.



PRO GEAR 75W-90 AND 80W-140

Premium full synthetic gear oils designed for maximum protection, life and performance. Exceeding API GL-5 and GL-6 they may be used in transmissions and differentials of all types of high performance cars and heavy duty trucks and off road equipment. Pro Gear Oil 80 has been especially enhanced to survive the extremes of V8 operations. Full limited slip performance and meeting API GL-5/6, MIL-PRF-2015E, Ford M2C-200C (75W-90), Ford M2C-190A, (80W-140) Holden HN 2040 (80W-140).



INDUSTRIAL GEAR OILS

INDUS GEAR OIL EP

Premium, extreme pressure industrial gear oils, manufactured from highly refined water white base oils and selected sulphur-phosphorus extreme pressure and anti-wear additives. Penrite Indus Gear Oil EP meets the requirements of API GL-3. Designed for use in industrial style gear boxes including in crushers, hoists, conveyors, winches, machine tools and lathes. They can also be used in chain drives, sprockets, plain and anti-friction bearings and slide guides. Available in ISO grades 68, 150, 220, 320, 460 and 680.



GEAR OIL SYN 220

A premium full synthetic extreme pressure industrial gear oil, manufactured using carefully selected extreme pressure and anti-wear additives. Penrite Gear Oil Syn 220 meets the requirements of API GL-3 and AGMA 250.04 5EP. It is designed for use in industrial gear boxes including in crushers, hoists, conveyors, winches, machine tools and lathes. It can also be used in chain drives, sprockets, plain and anti-friction bearings and slide guides. Gear types include spur, helical, herringbone, bevel and even worm gears that need lighter oils. Can be used in bath, splash or oil mist lubrication systems operating at a wide range of temperatures. Other ISO grades available on request.



If a full Flender-approved gearbox oil is required, please contact your Penrite representative regarding **CEPSA Aerogear** and **CEPSA Aerogear Synt** grades.

CEPSA ENGRANAJES HPS

100% polyglycol synthetic oils that are especially recommended for applications in extreme conditions and at operating temperatures of between -35° C and 200° C. Designed for the lubrication of sealed gear systems, worm gear reducers, bearings, ball bearings and all types of equipment operating under very severe load and temperature conditions which require extreme pressure (EP) lubricants. They should be used in paper-milling, textile and plastics machinery when a synthetic oil for operation above 150° C is recommended. Available in ISO grades: 150, 220, 320, 460 and meet DIN 51517 Part 3 (CLP) and ISO 129525-1 Type CKC/CKD/CKS. Please contact your Penrite representative regarding the availability of this product.



HYDRAULIC OILS

INDUS HV HYDRAULIC OIL RANGE

A range of premium quality, high viscosity index, ashless hydraulic oils made from selected hydro-treated base stocks, a highly shear stable viscosity modifier and an advanced anti-wear additive. In addition they contain a fluorescent dye to allow for easy identification in daytime or under UV light in dark conditions. Penrite Indus HV oils are designed for use in hydraulic systems subjected to wide range of ambient temperatures such as in marine environments, mining, construction and agricultural equipment and forestry. They are recommended for use in all types of hydraulic systems using vane, piston or gear pumps, air-line lubricators, vacuum pumps, lightly loaded gear sets and bearings (such as headstocks, windmill gears) and hydraulic hoists and jacks. Marine applications for all products include deck equipment, steering gear and bow thrusters. Available in ISO grades 32, 46, 68 and 100 and meet DIN 51524 Part 3 (HLP/HVLP), ISO 6743 Part 4, Type HV, AFNOR NFE 48-603, SAE MS1004 Type HV.



INDUS MR HYDRAULIC OIL RANGE

A range of high quality, hydraulic oils made from selected base stocks, shear stable viscosity modifier and an ashless anti-wear additive. Penrite Indus MV oils are designed for use in hydraulic systems subjected to wide range of ambient temperatures such as in marine environments, mining, construction and agricultural equipment and forestry. They are recommended for use in all types of hydraulic systems using vane, piston or gear pumps, airline lubricators, vacuum pumps, lightly loaded gear sets and bearings (such as headstocks, windmill gears) and hydraulic hoists and jacks. Marine applications for all products include deck equipment, steering gear and bow thrusters. For maximum energy savings and protection, we recommend the Indus HV range. Available in ISO 46 and 68 grades and meets DIN 51524 Part 2 and ISO 6743 Part 4.



INDUS PRO HYDRAULIC OIL RANGE

Low zinc, premium quality hydraulic oils made from selected base stocks and an advanced anti-wear additive. Penrite Indus Pro Hydraulic Oils are recommended for use in all types of hydraulic systems using vane, piston or gear pumps, airline lubricators, vacuum pumps, lightly loaded gear sets and bearings (such as headstocks, windmill gears) and hydraulic hoists and jacks. Available in ISO grades 10, 32, 46 and 68 and meets DIN 51524 Part 2 (HLP Type).



Biodegradable Products

NYCO HYDRAUNYCOIL FH 4551

Nyco Hydrauncoil FH 4551 is a fire resistant ISO 68 hydraulic fluid based on a carboxylic ester. Its temperature operating range is between -20°C to +120 °C. It contains a specific corrosion inhibitor to prevent corrosion of steel, copper, aluminium and other metals. Hydrauncoil FH 4551 is also readily biodegradable. Hydrauncoil FH 4551 is intended for hydraulic equipment when the risk of fire is a concern and is widely used in high pressure equipment in steel and aluminium industry in which it has proven very efficient. The high level of biodegradability of Hydrauncoil FH 4551 is an additional benefit highly appreciated in tunnelling and marine industries. It is compatible with most elastomers and paints and in most cases, Hydrauncoil FH 4551 can be used directly in existing systems (designed for mineral-oil based hydraulic fluids) without any modification. System conversion can be achieved by a straight-forward drain-refill procedure. However, to keep the full benefit of fire resistance properties, ensure that the equipment is completely drained prior to filling it with Hydrauncoil FH 4551. Available in 208L drums only.



CEPSA BIO HM-S

A biodegradable synthetic ester hydraulic fluid. Due to its careful formulation, this lubricant minimises the effects of environmental pollution. Enables operation with wide temperature ranges whilst maintaining its excellent lubricant, anti-wear and anti-corrosion properties. Particularly recommended for hydraulic systems which operate under severe use conditions that require exceptional anti-wear properties and a high time-stable viscosity index. Available in ISO grades: 32 (on request), 46, 68 and meets VDMA 24568 Class HEES and ISO 15380 Class HEES. EU Ecolabel listed FR/27/07. Also available are **Penrite Indus BIO Hyd E46 and E68** (20L drums). Please refer to your Penrite representative for availability of this product.



COMPRESSOR OILS

INDUS COMPRESSOR OIL 8KH 68

Penrite Indus Compressor Oil 8KH68 is a special ashless PAO and ester based product designed to provide extended oil drains in both oil injected and oil flooded rotary screw compressors. Based around the highly successful technology used in the Compressor Oil 4KH series, it provides exceptional wear protection and reduces varnish build up. Compressor Oil 8KH68 also contains a special shear stable synthetic base oil to help reduce deposit formation. Indus Compressor Oil 8KH is designed for use for up to 8000 hours in compressor types where ISO 68 grades are specified. May also be used in reciprocating compressors for up to 1000 hours with air discharge temperatures of up to 150°C, in rotary vane compressors for up to 2000 hours with air discharge temperatures of up to 85°C and in centrifugal compressors for 2-5 years with air discharge temperatures of up to 50°C. Meets SAE M 1003-2.



INDUS COMPRESSOR OIL 4KH SERIES

Compressor Oil 4KH series are full synthetic, special ashless oil, designed to provide extended oil drains in both oil injected and oil flooded rotary screw compressors. Using the latest advances in compressor additive technology, they provide exceptional wear protection and reduce varnish build up. Compressor Oil 4KH46 and 4KH68 contain a special shear stable synthetic base oil to help reduce deposit formation. Compressor Oil 4KH is designed for use for up to 4000 hours in varying compressor types. May also be used in reciprocating Compressors for up to 500 hours with air discharge temperatures of up to 150°C, rotary vane compressors for up to 1000 hours with air discharge temperatures of up to 85°C and centrifugal compressors for 2-5 years with air discharge temperatures of up to 50°C. Compressor Oil 4KH series in the appropriate viscosity may also be used as steam turbine oil and for long drains in circulating systems in industrial machinery. Meets SAE M 1003-2. Available in ISO 46 and 68 grades.



INDUS COMPRESSOR OIL 2KH SERIES

Indus Compressor Oil 2KH series are a range of mineral based air compressor oils made from pure hydrocracked base oils and an effective ashless additive system. This formulation provides enhanced protection against wear, rust and oxidation. Indus Compressor Oil 2KH series is designed for use in rotary screw, reciprocating and rotary vane compressors, providing up to 2000 hour oil drain periods. They meet the requirements of major compressor manufacturers such as Atlas Copco, Champion, Sullair and Ingersoll-Rand. Indus Compressor Oil 2KH32 is recommended for oil flooded or oil injected, single or two stage rotary screw compressors, with air discharge temperatures of <100°C, where an ISO 32 mineral oil is recommended. Indus Compressor Oil 2KH68 and 2KH100 are primarily designed for use in single-stage and multi-stage reciprocating compressors with discharge temperatures of up to 200°C. They are also suitable for use in oil flooded rotary screw compressors requiring these viscosities. 2KH100 may also be used in ammonia compressors where an ISO 100 oil is required. These oils can also be used in turbo blowers and centrifugal pumps, as well as being suitable as R&O (Rust & Oxidation) lubricants in circulating systems. Meets DIN 51506 VDL and DIN 51524 Part 1.



Products for use in refrigeration compressors are also available on request, please contact your Penrite representative for details.

Please Note: These products are not recommended for breathing air unit compressors.



TURBINE OILS

INDUS TM 46

Penrite Indus TM 46 is an ISO 46 mineral turbine oil formulated with highly-refined hydrotreated paraffinic base stocks and selected additives that provide it with excellent properties for multiple applications. Indus TM 46 is specially recommended for steam, gas or water turbines that require an oil with high oxidation stability, good water demulsibility and excellent foam resistance. Can be used in turbine associated gearing systems where a common lubricant is required. Will not attack or rust ferrous or non-ferrous metal components.



CEPSA HD TURBINAS

Formulated with highly-refined and hydro-treated paraffin bases, with selected additives that confer excellent properties for multiple applications. These oils ensure excellent protection and lubrication for turbine components. They have powerful anti-rust capabilities, high chemical and thermal stability and very rapid deaeration. Specifically recommended for steam, gas and hydraulic turbines that require an oil with a long useful life and high stability against oxidation. Available in ISO grades: 32, 46 and 68 and meets ISO 6743-5 L TSA/TSE/TGA/TGB/TGE, DIN 51515 Part I (L-TD), ASTM D 4304 (Type I) and OEM ALSTHOM NBA-P-50001-A, GENERAL ELECTRIC GEK 28143A, GENERAL ELECTRIC GEK 32568F, SIEMENS TLV 901304, SOLAR Class II. Please contact your Penrite representative for details on this product.



CEPSA TURBINAS EP

Especially formulated to lubricate steam or hydraulic turbine systems, especially in turboalternators or propellor turbines with gears and/or reducers, as well as special systems where a high-quality hydraulic oil with EP characteristics is required. Meets ISO 6743-5 L TSA/TSE/TGA/TGB/TGE, ALSTOM HTGD 90117, GENERAL ELECTRIC GEK 101941A, GENERAL ELECTRIC GEK 107395A, GENERAL ELECTRIC GEK 27070, GENERAL ELECTRIC GEK 28143B, GENERAL ELECTRIC GEK 46506D, GENERAL ELECTRIC GEK 32568F, SIEMENS TLV 901304/901305, SOLAR ES 9224. Available in ISO 32, 46 and 68 grades, please contact your Penrite representative for details on this product.



NYCO TURBONYCOIL 600

Gas Turbine oil fully approved by General Electric (all LM ground gas turbine models), Rolls-Royce (501K, RB211, Avon, Olympus, Tyne, Spey), Allison, Nuovo Pignone (PGT25, 20/2) where used in marine propulsion systems and power generators/pumps. Please contact your Penrite representative for details on this product.



GREASES

ACT GREASE XEP 2

Penrite ACT Grease XEP2 is a tenacious, highly specialised semi-synthetic lithium complex grease designed for use in Agricultural and Construction equipment as well as on highway Trucks and marine deck equipment. Manufactured from a bismuth EP/AW system and utilising carefully blended polymers, it is coloured bright red-orange and meets NLGI 2. The polymers help provide excellent stay in place properties and to adhere to critical parts where it can better lubricate metal surfaces. This is a far better outcome than for some of the "super-stringy" greases that are good at sticking to themselves but require the equipment to work harder to overcome internal friction. ACT GREASE XEP2 can be used in various industrial, heavy duty automotive, agricultural, construction marine and mining applications, where it provides outstanding protection for low to medium speed bearings that are heavily loaded and where molybdenum greases are not required.



INDGREASE CXOG-05

Penrite Indgrease CXOG-05 is an advanced technology, mixed-complex grease. It is made using a lithium-calcium complex soap with built-in extreme pressure and anti-wear properties. These are further enhanced by the addition of anti-oxidant and corrosion inhibitors. It also uses special tackifiers to help the product stay in place and adhere to critical surfaces where it can better lubricate metal surfaces. This is a far better outcome than for some of the super-stringy greases that are good at sticking to themselves but require the equipment to work harder to overcome internal friction. Indgrease CXOG-05 is recommended for use in severe heavy duty applications where high shock loads are common including those in corrosive environments. It is especially suited for open gear applications where greases containing solids are normally used. The microcrystalline structure of this grease functions in the same manner as the molybdenum type additives normally used. It is also suitable for use on many wire ropes on marine deck equipment.



INDGREASE 100 LXEP2

Penrite Indgrease 100 LXEP 2 is a premium, high melting point, lithium complex grease of NLGI 2 consistency. It is a high temperature grease designed to meet the most demanding grease applications especially where a low base oil viscosity and long life is required. Indgrease 100 LXEP 2 is formulated to provide extreme pressure (EP) and anti-wear (AW) protection plus water resistance properties. Indgrease 100 LXEP 2 is also formulated to give a high level of oxidation, rust and corrosion protection. Indgrease 100 LXEP 2 is recommended for use in most types of industrial applications operating under high speed and conditions where shock loads, extreme pressure and vibration may occur. It can provide long life protection for rolling element bearings, plain bearings, gears and couplings in applications that include electric motors, pumps, fans and generators.

INDGREASE BM3

Penrite Indgrease BM3 is a highly specialised no-melt type grease, manufactured from a Bentone clay with highly refined base oils and Molybdenum disulphide. It is a NLGI 3 grade. The excellent resistance to water makes it ideal for use in marine applications such as in dock equipment, cargo and warping winches, lifeboat davits, hatch covers and ships' stabilisers.

EXTREME PRESSURE GREASE

A NLGI No 2 red coloured general purpose grease manufactured from high quality base oils and a lithium soap. Extreme Pressure Grease is suitable for use in all general grease applications in automotive and industrial service. This includes plain bearings, slow speed wheel and anti-friction bearings, chassis grease, general plant lubrication and agricultural and construction equipment lubrication.

MOLYGREASE EP 3%

An NLGI No 2, all-purpose grease manufactured from high quality base oils, a lithium soap and containing molybdenum disulphide (moly) for added protection in general grease applications in automotive and industrial service. It is particularly suitable for use where the grease is likely to be exposed to the weather and/or squeezed out. In these applications, a thin film of molybdenum will provide some measure of protection until the component can be re-greased. Recommended for use on ball joints, king pins and universal joints.

HIGH TEMPERATURE WHEEL BEARING GREASE

A NLGI No 2, purple coloured, high temperature all-purpose, extreme pressure (EP) grease manufactured from high quality base oils and a lithium complex soap. It utilises a special borate additive system for effective extreme pressure performance and anti-wear protection. High Temperature Wheel Bearing Grease is suitable for use in all general chassis grease applications in automotive and industrial service, including in cars, 4WDs, trucks and buses. It is particularly suitable for use in wheel bearings of vehicles fitted with disc brakes, as well as drum brakes, boat trailer wheel bearings and other marine applications. It is also a highly effective industrial grease in applications such as rolling element bearings, plain bearings, medium speed anti-friction bearings, steel mills, underground tunnelling or mining and ore crushing plants, general plant lubrication and in agricultural and construction equipment.

CEPSA ARGAFORCE

A super adherent and corrosion-resistant product. This synthetic grease incorporates solid lubricants and other additives that have been carefully selected to provide total stability against the highest pressures and loads. The grease is free of compounds that are harmful to the environment. Especially formulated for drag lines on ships, fishing boats, tugboats and open gears. It improves running conditions and permits rolling and settling of surfaces by plastic deformation of the metal, achieving less wear, an absence of pitting and seizure, and quieter operation.



ENGINE COOLING SYSTEMS

HD LONGLIFE ECO1 ANTI-FREEZE, ANTI BOIL CONCENTRATE AND 50% PREMIX

A red coloured hybrid organic US style, heavy duty ethylene glycol based coolant concentrate that utilises a long drain, low depletion rate inhibitor system. It is suitable for use in trucks, buses, agricultural and construction equipment, stationary engines and in passenger cars/light commercial vehicles. It has particular suitability for heavy duty diesel engines of US origin but may be used in all types of vehicles that use red or orange coloured initial fill coolants. It is especially formulated for heavy vehicle application and the protection of heavy diesel wet sleeve liners. Penrite HD Longlife ECO1 Anti-Freeze Anti-Boil Concentrate is typically used at a 50% concentration rate but it will still provide protection at 33%. Meets the requirements of AS 2108-2004 Type A and Caterpillar EC-1. Recommended maximum drain intervals in heavy duty applications are 8 years/1,250,000km on highway or 8 years/15,000 hours off highway whichever comes first. In passenger cars and light commercials the recommended drain interval, is 5 years/250,000km whichever comes first.



PGXL COOLANT PREMIX

Penrite PGXL Coolant Premix is a blue coloured, heavy duty propylene glycol based, low silicate, phosphate and amine free hybrid engine coolant. PGXL Coolant Premix is designed for use in heavy commercial vehicles where it is formulated to provide excellent high temperature protection. It provides excellent long term corrosion protection for aluminium, cast iron, brass, copper, steel and solder. It is especially formulated for heavy vehicle application and the protection of heavy diesel wet sleeve liners. PGXL Coolant is premixed and does not require any further dilution. For initial fills, it requires no supplemental cooling additives. PGXL Coolant has a lower toxicity than either Mono Ethylene or Di-ethylene glycols but can be used to top up systems containing both OAT and conventional type coolants. We recommend that if a complete fill is required that the system be flushed prior to the introduction of the new coolant. It can be used in on road truck, off road mining, farm and marine applications. It will last 12,000 Hours or 1,000,000 km's or whichever comes first.



7 YEAR LONG DRAIN ANTI-FREEZE/ANTI-BOIL COOLANT CONCENTRATE

A European style glycol-based product that protects against over-heating, freezing and corrosion. Suitable for use in a wide range of vehicles. Lasts up to 7 years and can be used at dilution rates from 33%-50%. European OEM approved technology. Coloured green.

Key Specifications: AS 2108-2004 Type A, MAN 324NF, BMW, HN 2217, VW TL774C, Isuzu, Ford ESE M97-B44A, MB 325.0

Also available as 33% Ready-to-use Premix



7 YEAR LONG DRAIN ANTI-FREEZE/ANTI-BOIL COOLANT PREMIX



OTHER OILS AND FUEL ADDITIVES

PENBLUE

Penrite Penblue is an aqueous solution of Urea, 32.5% in weight. (AdBlue®). SCR (Selective Catalytic Reduction) systems require a continuous provision of a solution of Urea at 32.5% in order to operate correctly. SCR technology has been developed to fulfil the requirements of emissions standards EURO 4 and EURO 5. AdBlue® is a NOX reducing agent designed to be used in diesel vehicles equipped with SCR technology. Penblue is added to a separate storage tank on the vehicle.



BRAKE FLUID SUPER DOT 4

Penrite Brake Fluid Super DOT 4 is a high quality, non-petroleum based, premium fully synthetic brake fluid designed for use in a wide range of brake and clutch applications where DOT 3, DOT 4 or Super DOT 4 products are called for. Recommended for re-fill or top-up of brake and clutch systems in passenger cars, light and heavy commercial vehicles, four wheel drives, tractors and motorcycles. Note this product should not be mixed with silicone DOT 5 fluids. For vehicles that require mineral based products, Penrite LHM Plus should be used. For best results, always flush system with Penrite Brake Fluid Super DOT 4 if using for the first time before refilling the system. Silicone type assembly compounds should not be used in conjunction with this product.



MARINE OUTBOARD TWO STROKE OIL

Penrite Marine Outboard Two Stroke Oil is a low smoke oil manufactured from selected hydro-treated base oils and an ashless additive package. Designed for use in all water cooled two stroke outboard engines including oil injected and premix systems. It is NMMA TC-W3® Certified for service at the engine manufacturer's recommended fuel/oil ratio. NMMA TC-W3® Registration Number RL-00419J, API TC, JASO TB



BIOMARINE OUTBOARD TWO STROKE OIL

Biomarine Outboard is a biodegradable, low smoke, clean burn oil offering less environmental impact than conventional 2 stroke motor oils. It is ashless, meaning soot and other combustion chamber deposits are minimised. Certified for service NMMA TC-W3® at the engine manufacturers recommended fuel/oil ratio. Biomarine Outboard Two Stroke Oil is recommended for all types of outboard motors and Jet Skis, and can be used in direct injection engines as well as premix systems at mixing ratios specified by the manufacturer. NMMA TC-W3® Registration Number RL-33201M, API TC



DIESEL INJECTOR CLEANER

A state of the art 2 in 1 diesel fuel treatment that combines an advanced set of additives to clean and protect fuel system components and improve the combustion quality of diesel fuel. Diesel Injector Cleaner cleans the whole fuel delivery system, improves fuel economy, increases power, lowers emissions, makes starting easier, provides smoother idling and prevents against detonation damage.

MULTI-PURPOSE WASH

A heavy duty, multi-purpose, biodegradable, detergent cleaner, capable of cleaning the most heavily soiled cars, motorbikes, 4WD's, trucks, tractors, boats, caravans and other vehicles. Its unique formulation will not cause damage or streaking to the paintwork. It is safe to use on all modern automotive paintwork finishes and will not harm aluminium, vinyl, rubber, glass or fiberglass. Multi-Purpose Wash is pH neutral and free of phosphate and salt, making it environmentally safer to use. It is also a quick-break detergent, allowing oil and water to separate, making it easier to remove the oil/grease layer when used with oil/water separators, interceptor pits and oil traps.

BIO CLEAN

An industrial strength, all purpose, heavy duty product that can be used as both a degreaser and detergent. It is water based, biodegradable and phosphate free, making it environmentally safer to use. It is also a quick-break detergent, allowing oil and water to separate making it easier to remove the oil/grease layer when used with oil/water separators, interceptor pits and oil traps. Bio Clean has a formulation based on orange oil and has a pleasant citrus fragrance. It is yellow in colour for ease of identification.

CEPSA STERNA

This product offers high viscosity and high performance. It emulsifies rapidly with seawater, maintaining a stable emulsion that is adhesive and an excellent lubricant, protecting the critical surfaces of the stern tube against corrosion even during extended periods under severe operating conditions. Particularly recommended for bearings/stern tube seals where lubricants with emulsifying properties are required. Especially developed for the lubrication of Cedervall type stern tubes installed on ships, and for certain propeller blade stabiliser bearings installed on passenger ships. ISO 320.

CEPSA STERNA BIO AND PENRITE STERNA BIO

Synthetic and biodegradable hydraulic fluid for stern tubes on ships. Minimises the effects of environmental pollution whilst also offering excellent anti-wear and anti-corrosion properties and a high natural viscosity index that is stable over time. It enables operation at a wide range of temperatures. Particularly recommended when there is a risk of water pollution, for hydraulic systems operating under severe conditions. Compatible with the seals used in hydraulic circuits (Viton, Perbunan, nitrile NBR, neoprene, silicone). ISO 100 (sold as a Penrite brand in 20L drums). Please contact your Penrite representative for availability.



LIST OF CODES AND CROSS REFERENCE

JOINT SERVICES CODE	NATO CODE	US MILITARY SPECIFICATION	BRAND NAME
	H-544	MIL-PRF-46170D	Hydrauncoil FH3
	H-575	MIL-DTL-17111E	Hydrauncoil FH19
	O-1177		Penrite Biomarine Outboard Two Stroke Oil
	O-1236	MIL-L-2104F	Penrite Diesel FX
	S-758	MIL-PRF-63460E AMD 1	Nycolube 127
	S-1748		Nycodiel
AL-39	S-757	MIL-PRF-87252C AMD 1	Penrite 7 Year Green Anti-Freeze Anti-Boil (Concentrate & Premix)
OC-600	O-208		CEPSA Cilindros
OEP-38	O-186		Penrite Pro Gear 75W-90
OEP-80		MIL-PRF-17331J	CEPSA Turbinas EP 68
OEP-89	O-250	MIL-PRF-17331J	CEPSA Turbinas EP (ISO 68 only)
OEP-220		MIL-PRF-2105E/SAE 2360	Penrite Gear Oil 80W-90
OEP-240			Penrite Gear Oil 80W-90
OEP-250			Penrite Pro Gear 80W-140
OEP-600		MIL-PRF-2105E/SAE 2360	Penrite Gear Oil 85W-140
OM-15	H-515	MIL-PRF-5606H AMD. 3	Hydrauncoil FH 51
OM-17			CEPSA Blamedol 15
OM-18			Penrite Indus HV 15
OM-33			Penrite Indus HV 32
OM-58			Penrite Indus Compressor Oil 2KH68
OM-1300	O-258		Penrite Cyl Oil Min 900
OMD-23			Penrite Marine Outboard Two Stroke
OMD-110			Penrite Mono Truck 30
OMD-113	O-278	MIL-PRF -9000J	MDEO 4012
OMD-140			Penrite Mono Truck 40
OMD-330			Penrite Fleet-gear 50
OX-8	H-542		Penrite Brake Fluid Super DOT 4*
OX-22	O-156	MIL-PRF-23699F CLASS STD	Turbonycoil 600
PX-7	S-743	VV-P-236A AMD 2	Nyco 65 Vaseline
OX-72			CEPSA Sterna
OX-77	H-548		Penrite ATF DX3
OX-79			Penrite Fleet-gear 10
OX-80			Penrite Fleet-gear 30
OX-85			Penrite Tractor Transmission and Hydraulic Oil
OX-165			CEPSA Engranajes HPS 220
OX-300			CEPSA Sterna
PX-26	C-635	MIL-PRF-6083F	Hydrauncoil FH6
XG-235	G-363	SAE-AMS-G-6032 TYPE 1	NycoGrease GN HC
XG-269	G-392	SAE-AMS-G-4343	NycoGrease GN4343
XG-276	G-353	MIL-G-21164D	NycoGrease GN17
XG-285	G-355		NycoGrease GN06
XG-286			Penrite Indgrease CX 152 WR
XG-287	G-354	MIL-PRF-23827C AMD 2	NycoGrease GN10
XG-293	G-395	MIL-PRF-81322G	NycoGrease GN22
XG-305			Penrite Molygrease EP 3%
XG-315	G-394		NycoGrease GN68
XG-460			Penrite QCS Grease MX 0
ZX-9			Penrite Soluble Oil
ZX-13	S-270		Penrite Indgrease AS1

* Full OX-8 approved brake fluid may be available on request.

Products are stated as suitable for use against the specifications quoted and do not infer that the products are formally approved or registered. Please contact your Penrite representative for further information on the availability and approval status of the above products.

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