



**elesa**

*PRECISION LUBRICANTS*

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***MILITARY SECTOR***



**elesa®** is the brand name of a great company called **ELECTROFILM ESPAÑOLA, S.A.** born in February 1965 thanks to its founding partner Mr. Teodoro Carvajal Gallego.

**Electrofilm Española, S.A.** began collaborating with the company **ELECTROFILM INC., USA**, located in West Lafayette (Indiana), importing its technology and lubricant products in all its formats.

Starting as an importing company and only dedicated to the marketing of lubricants of well-known brands such as Lubri-Bond and Everlube manufactured according to the American **MIL** standards, it has reached such dimensions that motivate us to **GROW**.

In 1985 the management of **ELECTROFILM INC, USA** offered us the acquisition of their facilities in West Lafayette. In those years the Spanish government did not allow us to import their machinery from the USA. **ELECTROFILM INC., USA** begins negotiations with a large American chemical group, Great Lakes Chemical Corporation (GLCC). Nowadays we are independent.

Given our excellent relationship and professional cooperation, **ELECTROFILM INC., USA** decided to transfer all its technology, know-how and original formulations to **ELECTROFILM ESPAÑOLA, S.A.** before becoming part of GLCC in 1988. This gave us the possibility to grow as a company and to undertake the great adventure, after a long commercial career as importers, to become specialised manufacturers in the lubrication and industrial engineering sector.

This meant a further change of premises to the current address. The group of American technical specialists worked with us until the factory and its various production processes were up and running. To date, we manufacture more than 4000 product references.

Our company has specialised from the very beginning in industry and in particular in the maintenance and lubrication sector. Far from a craft activity, production becomes an important technical process, inspected by measurement and evaluation systems.

The constant research, development and innovation of our technicians, their dedication and continuous work with small-scale pilot plant, has allowed a deep knowledge of the parameters that differentiate the reactions, mixtures, dispersions and emulsions, in order to offer homogeneity in the mixtures and give adequate performance to the manufactured lubricants.

At present, all our products are manufactured and supervised under our quality system in compliance with the UNE EN-ISO-9001 and 14001 standards. **Elesa** designs and manufactures specific preparations for certain customers.

In parallel, our technical department provides added value in the form of immediate personal attention, either on site or via the customer service hotline. We carry out lubrication studies, advice on reducing unnecessary stocks, analysis of new and used lubricants, applied engineering, training courses, etc.

Our team is highly qualified in engineering, chemistry, mechanics, economics, quality and environment with the ultimate goal of increasing the life cycle of the products and the commercial relationship with our customers in their multiple sectors and to meet the demands of the very competitive and close global market.

We thrive on challenges and provide enhanced performance for our products through close contact with our market-leading additive suppliers, who differentiate between similar products. All of this is in line with safety, hygiene and environmental requirements.



At Elesa Lubricants, we have been dedicated to providing high performance solutions for all types of machinery and heavy mobility elements for decades.

We have developed a range of lubricants tested for the highest demands of land and naval tactical vehicles. Investing in Elesa Lubricants is to do so without risk, given the high quality and reliability of the product; accompanied by a durability superior to the usual in the market; and a technical support from our after-sales team, highly prepared to respond to your needs.

With more than 60 years of experience, Elesa Lubricants has established itself as a leading manufacturer of high quality lubricants for defence and all associated industries. Our passion for innovation and commitment to excellence, have led us to have **all quality certifications (ISO 9000 and ISO 14001) covering all areas of the production process.**

In this way, we guarantee a manufacture that meets all the technical requirements demanded by each manufacturer. Our lubricants are safe in the face of rain, water, cold, dust... Every drop of Elesa is a guarantee of performance, efficiency and protection for your machinery and vehicles.





LUBRICANT OILS

GREASE

HYDRAULIC FLUIDS

ANTI-CORROSION AND PROTECTIVE PRODUCTS

SPECIAL AND MISCELLANEOUS PRODUCTS

VARIOUS







## LUBRICANT OILS

PRODUCT	NATURE	STANDARD / SPECIFICATION	PROPERTIES
O - 147	SYNTHETIC	<b>MIL-PRF-6085E “Lubricating oil instrument, aircraft, low volatility”</b>	Lubrication of aviation instruments, mechanical fuzes and electronic equipment. Suitable where corrosion protection and low volatility are required in low temperature applications
O - 153	SEMI SYNTHETIC	<b>MIL-PRF-6086F (1) “Lubricating oil, gear, petroleum base (NATO O-153, O-155)”</b>	Aviation gears with moderate load operating at low temperatures, helicopter gears and radar gearboxes
O - 155	SEMI SYNTHETIC		Aviation gears subjected to high and medium loads, low and medium speed, helicopter reduction gears and radar gear boxes
O - 157	SYNTHETIC	<b>MIL-PRF-14107D “Lubricating oil, weapons, low temperature”</b>	Lubrication and protection of small-calibre, high-capacity ground and airborne weapons to ensure their operability at low temperatures
O - 158	SYNTHETIC	<b>MIL-PRF-46000 “Lubricant, semi-fluid (automatic weapons)”</b>	Lubrication of automatic weapons under extreme pressure conditions
O - 185	SYNTHETIC	<b>SAE J2360 201204 “Automotive gear lubricants for commercial and military use”</b>	Lubrication of automotive bevel, helical or hypoid gears, transmissions and gearboxes of heavily loaded or heavily decelerated industrial equipment. Suitable for gears of heavy vehicles and tactical vehicles not requiring an oil with anti-friction additives (API GL-4). 70W
O - 186	SYNTHETIC		Lubrication of automotive bevel, helical or hypoid gears, transmissions and gearboxes of heavily loaded or heavily decelerated industrial equipment. Suitable for gears of heavy vehicles and tactical vehicles not requiring an oil with anti-friction additives (API GL-5). 75W

PRODUCT	NATURE	STANDARD / SPECIFICATION	PROPERTIES
O - 190	MINERAL	<b>MIL-PRF-32033A (1) “Lubricating oil, general purpose, preservative (water-displacing, low temperature)”</b>	Corrosion inhibiting lubricating oil that protects metal parts during storage
O - 192	SYNTHETIC	<b>MIL-PRF-3150E “Lubricating oil, preservative, medium”</b>	Preservation of stored armament mechanisms, final finishing in the phosphating of armament, general lubrication of lightly loaded mechanisms and general protection of metal components exposed to corrosive environments
O - 204	SYNTHETIC	<b>TL 9150-0069 Ausg. 7 “Schmieröl, halbflüssig O-204”</b>	Lubrication of high rate of fire automatic weapons. Lubrication of anti-friction bearings and sliding bearings in mechanisms subjected to extreme loads and in low temperature conditions or in the presence of water
O - 214	MINERAL	<b>NME-3011/2015 “Fluido de corte de base acuosa para máquinas herramientas (O-214)”. VV-C-846D</b>	Water-soluble general purpose machining oil for machine tools used in cutting and machining operations on metal parts
O - 216	MINERAL	<b>NME-3003/2018 “Fluido de corte de base aceite para máquinas herramientas (TO-216)”</b>	General purpose lubricant and coolant for machine tools used in metal cutting and machining operations
O - 226	MINERAL		Lubrication of automotive bevel, helical or hypoid gears, transmissions and gearboxes of heavily loaded or heavily decelerated industrial equipment. Suitable for gears of heavy vehicles and tactical vehicles not requiring an oil with anti-friction additives. (GL-5), ISO-CKT. 80W 90
O - 228	MINERAL	<b>SAE J2360_201204 “Automotive gear lubricants for commercial and military use”</b>	Lubrication of automotive bevel, helical or hypoid gears, transmissions and gearboxes of heavily loaded or heavily decelerated industrial equipment. 85W 140
O - 228 (LSD)	MINERAL		Lubrication of automotive bevel, helical or hypoid gears, transmissions and gearboxes of heavily loaded or heavily decelerated industrial equipment. Suitable for gears in heavy vehicles and tactical vehicles requiring an oil with limited slip type anti-friction additives (GL-5). 85W 140
O - 237	MINERAL	<b>MIL-PRF-2104N “Lubricating oil, internal combustion engine, combat/tactical service”</b>	Lubrication of internal combustion reciprocating ignition reciprocating engines (MEP) or compression ignition reciprocating engines (CEP) and as a hydraulic fluid. Also used as an automotive hydraulic fluid in tactical ground vehicles

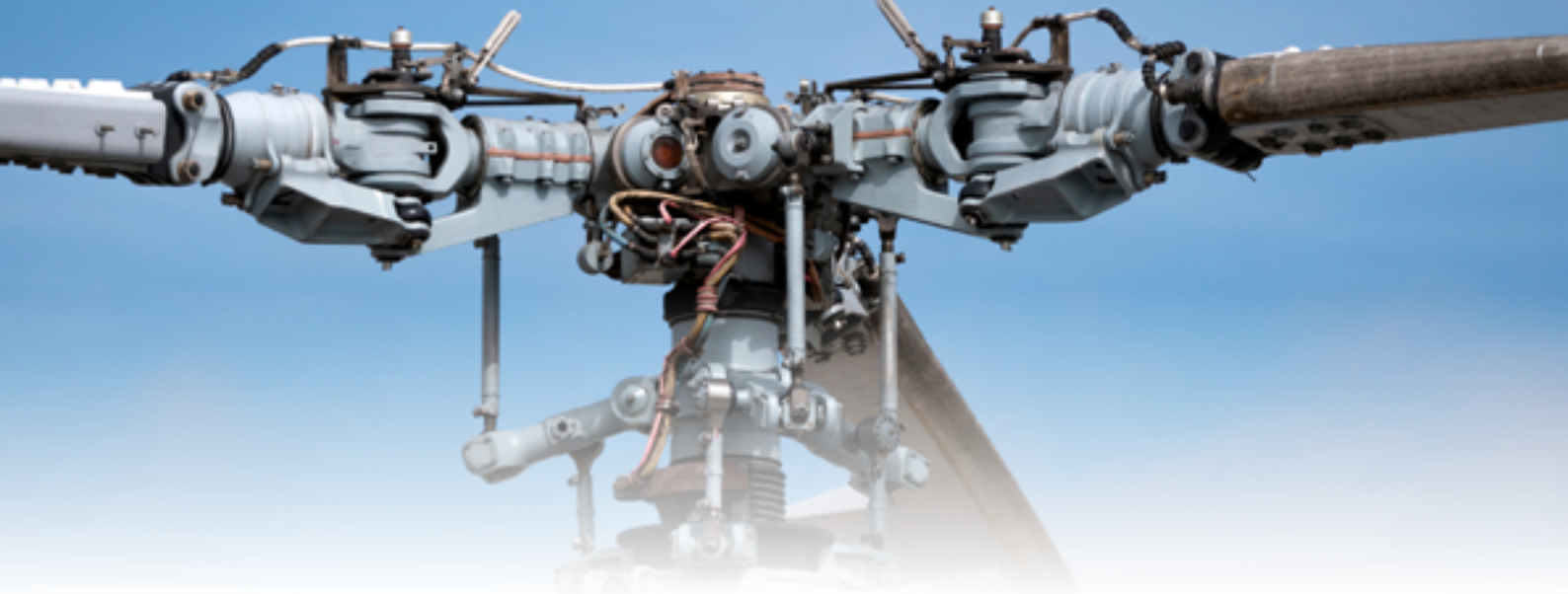


PRODUCT	NATURE	STANDARD / SPECIFICATION	PROPERTIES
O - 239	MINERAL	<b>NME-2992/2016 “Aceite lubricante de motor grado 50 (O-239)”</b>	Lubrication of two-stroke and four-stroke MEP and MEC engines in hot environments; suitable for severe operating regimes in vehicles or heavy-duty machinery
O - 240	MINERAL	<b>DEF STAN 91-25/4H, MM-0-2001/B</b>	Specially formulated lubricating fluid for use in light load applications in HM type marine forced lubrication gear systems, as well as in those marine gearboxes that do not require high load capacity. Also recommended for general lubrication and hydraulic applications
O - 250	MINERAL	<b>MIL-PRF-17331L “Lubricating oil, steam turbine and gear, moderate service”</b>	Lubrication of steam turbines and marine reduction gear units, air compressors and certain hydraulic equipment, as well as for general mechanical lubrication.
O - 278	MINERAL	<b>MIL-PRF-9000L (1) “Lubricating oil, shipboard internal combustion engine, high-output diesel”</b>	Lubrication of marine compression-ignition internal combustion engines (ICE), engine-driven generator bearings and associated equipment
O - 283	SYNTHETIC	<b>DIN 51506:2017-08 “Schmierstoffe – Schmieröle VB ohne Wirkstoffe und mit Wirkstoffen und Schmieröle VDL – Einteilung und Anforderungen”, VV-L-825C</b>	Refrigeration, air-conditioning and heat pump systems using fluorinated refrigerant fluids or ammonia, and where the use of lubricants with excellent low temperature characteristics is required
O - 290	SYNTHETIC	<b>DIN 51506:2017-08 “Schmierstoffe – Schmieröle VB ohne Wirkstoffe und mit Wirkstoffen und Schmieröle VDL – Einteilung und Anforderungen”</b>	Refrigeration, air-conditioning and heat pump systems using fluorinated refrigerant fluids or ammonia, and where the use of lubricants with excellent low temperature characteristics is required
O - 1177	SYNTHETIC	<b>DCSEA 242/C “Huile de synthèse pour moteurs 2 temps (terrestres et hors-bord)”</b>	Lubrication of two-stroke air-cooled or water-cooled, outboard or inboard, spark ignition-propelled engines (MEP), by addition to the fuel in the proportions specified by the manufacturer, to prevent fouling of the combustion chambers and exhaust ports, and pearly of the spark plugs. 2T TCWIII
O - 1178	SYNTHETIC	<b>TL-9150-0080 Ausg. 4 “Schmieröl, Verbrennungsmotor NATO-Kode: O-1178 BW-Kode: OY1175”</b>	Lubrication of four-stroke, four-stroke compression ignition (MEP) or compression ignition (MEC) engines operating permanently at low temperatures. Can also be used in hydraulic systems, transducers, couplings and manual gearboxes and steering gearboxes of wheeled and tracked vehicles. 5W30
O - 1179	SYNTHETIC	<b>AFLP-7091 Ed. B Ver. 2 (STANAG 7091 Ed. 4), ACEA A3/B4</b>	Lubrication of spark ignition (MEP) or compression ignition (MEC) engines. Lubrication of gearboxes and non-hypoid gears not requiring oil with extreme pressure characteristics. 5W40
O - 1180	SYNTHETIC	<b>AFLP-7091 Ed. B Ver. 2 (STANAG 7091 Ed. 4), ACEA E6/E7</b>	Lubrication of four-stroke engines equipped with EGR valve for the reduction of nitrogen oxides. Lubrication of heavy-duty compression ignition engines (C.I.E.). 10W40
O - 1236	MINERAL	<b>MIL-PRF-2104N “Lubricating oil, internal combustion engine, combat/tactical service”</b>	Lubrication of compression ignition engines (C.I.E.) and as a hydraulic fluid for tactical and combat service equipment. 15W40





PRODUCT	NATURE	STANDARD / SPECIFICATION	PROPERTIES
<b>G - 353</b>	<b>SYNTHETIC</b>	<ul style="list-style-type: none"> <li>• <b>MIL-G-21164D “ Grease, molybdenum disulfide, for low and high temperaturas, NATO code Number G-353</b></li> <li>• <b>DEF STAN 91-57 Iss 2 Amd. 1</b></li> <li>• <b>DCSEA 353/A</b></li> </ul>	<ul style="list-style-type: none"> <li>• Lubrication of highly loaded sliding steel surfaces, such as worm bearings, anti-friction bearings carrying heavy loads and operating over a wide temperature range, where molybdenum disulphide prevents or delays seizure.</li> <li>• Perpetual lubrication in small mechanisms in administrative equipment, household appliances, etc. Bearings and bearings at high speed (F.V. up to 1.000.000). Bearings and bearings in RAMES. Do not put in contact with varnishes and paints</li> </ul>
<b>G - 354</b>	<b>SYNTHETIC</b>	<ul style="list-style-type: none"> <li>• <b>MIL-PRF-23827C “Grease, aircraft and instrument, gear and actuator screw”</b></li> <li>• <b>DEF STAN 91-53 Iss 3 Amd. 2</b></li> <li>• <b>DCSEA 354/A</b></li> </ul>	Lubrication of ball, roller or needle bearings, gears, sliding or rolling surfaces of equipment subject to low temperature conditions. Also used in aircraft gears, actuating screws, and other equipment requiring a lubricant with high load-carrying capacity
<b>G - 355</b>	<b>SYNTHETIC</b>	<b>DEF STAN 91-54 Iss. 2 Amd. 2 “Grease, aircraft: graphite NATO code: G-355 Joint Service Designation: XG-285”</b>	Lubrication of surfaces under heavy intermittent loads, such as aircraft combustion engine starter gears and bearings and sliding surfaces subject to relatively slow sliding motions
<b>G - 359</b>	<b>MINERAL</b>	<b>DCSEA 359/A “Graisse pour température élevée”</b>	Lubrication of aircraft components, such as ball joints, joint shafts, universal joints, landing wheels, surfaces exposed to contact corrosion that are subject to slow movements and high loads
<b>G - 363</b>	<b>SYNTHETIC</b>	<b>DEF STAN 91-6 Iss. 4 Amd. 1 “Grease, plug valve, hydrocarbon resistant NATO code: G-363 Joint Service Designation: XG-235”</b>	Lubrication of valves in fuel supply systems
<b>G - 366</b>	<b>SYNTHETIC</b>	<b>MIL-G-25537C (1) “Grease, aircraft, helicopter oscillating bearing, NATO code number G-366, metric”</b>	Lubrication of rolling bearings with low amplitude oscillating movements
<b>G - 372</b>	<b>SYNTHETIC</b>	<b>MIL-G-25013E “Grease, aircraft, ball and roller bearing, NATO code number G-372, metric”</b>	Lubrication of ball and roller bearings operating at high and low temperatures
<b>G - 382</b>	<b>MINERAL</b>	<b>DEF STAN 91-105 Iss. 2 Amd. 1</b>	Lubrication of mechanisms in general, especially suitable if in contact with paints, varnishes or elastomers requiring the use of a mineral grease, or if operating at temperatures below -20 °C, when G-359 grease cannot be used
<b>G - 392</b>	<b>SYNTHETIC</b>	<b>SAE AMSG4343A “Grease, pneumatic system”</b>	Lubrication between rubber and metal parts of pneumatic systems. Can also be used for sealing seals in pressurised cabinets and other mechanisms requiring lubrication between metal and rubber parts for extreme low temperature operation
<b>G - 394</b>	<b>SYNTHETIC</b>	<b>DEF STAN 91-56 Iss. 3 Amd. 1 “Grease, silicone: metal to rubber NATO code: G-394 Joint Service Designation: XG-315”</b>	Lubrication between metal and rubber sliding surfaces in pneumatic systems
<b>G - 395</b>	<b>SYNTHETIC</b>	<b>MIL-PRF-81322G “Grease, aircraft, general purpose, wide temperature range, NATO code G-395”</b>	General purpose lubrication in aviation applications under extreme temperatures, such as wheel bearings, brake assemblies, anti-friction bearings or gearboxes



## GREASE

PRODUCT	NATURE	STANDARD / SPECIFICATION	PROPERTIES
<b>G - 396</b>	<b>SYNTHETIC</b>	<b>MIL-PRF-83363E "Grease, transmisión, helicopter"</b>	Helicopter transmission lubrication for use in helicopter rotor shafts and tail rotors, intermediate transmissions and gearboxes. Also used in worm gear actuators, fine pitch gear trains, servo drives and bearings
<b>G - 399</b>	<b>SYNTHETIC</b>	<b>MIL-PRF-27617G (1) "Grease, aircraft and instrument, fuel and oxidizer resistant"</b>	Lubrication of tapered plug valves, seals and bearings in military aircraft fuel systems and ground support equipment. Also suitable for use, in the presence of liquid oxygen, as a lubricant for valves, threads and bearings in aerospace vehicles and support equipment
<b>G - 403</b>	<b>SYNTHETIC</b>	<b>DEF STAN 91-27 Iss. 3 Amd. 2 "Grease, automotive and artillery NATO code: G-403 Joint Service Designation: XG-279". AFLP-7101 Ed. A Ver. 1 (STANAG 7101 Ed. 2)</b>	General purpose lubricant used in automotive and artillery applications
<b>G - 412</b>	<b>MINERAL</b>	<b>VV-G-671G "Grease, graphite"</b>	Lubricating grease with moderate load carrying capacity. Use in equipment or machinery equipped with grease nipples requiring graphitised grease
<b>G - 414</b>	<b>SYNTHETIC</b>	<b>AFLP-7101 Ed. A Ver. 1 (STANAG 7101 Ed. 2)</b>	General purpose lubrication in vehicles, such as chassis, bearings, ball joints or various joints. Resistant to extreme pressure and high corrosion protection
<b>G - 421</b>	<b>SYNTHETIC</b>	<b>DEF STAN 91-105 Iss. 2 Amd. 1 "Grease, multipurpose: heavy duty NATO code: G-421 Joint Service Designation: XG-291". AFLP-7101 Ed. A Ver. 1 (STANAG 7101 Ed. 2)</b>	Lubrication of gearboxes, anti-friction bearings, rolling bearings and other mechanisms
<b>G - 450</b>	<b>LITHIUM SOAP</b>	<ul style="list-style-type: none"> <li>• <b>MIL-PRF-24139A (3) "Grease, multipurpose, water, resistant."</b></li> <li>• <b>DEF STAN 91-28 Iss. 1. ;NATOG-450.</b></li> </ul>	General lubrication for applications requiring water resistance
<b>G - 460</b>	<b>LITHIUM SOAP</b>	<ul style="list-style-type: none"> <li>• <b>DEF STAN 91-34 Iss. 2 Amd. 2 "Grease, sea water resisting NATO code: G-460 Joint Service Designation: XG- 286".</b></li> <li>• <b>STANAG 7101 Ed.1</b></li> <li>• <b>STM 310/B</b></li> <li>• <b>TIL-9150-0066 Ausg.7</b></li> </ul>	<ul style="list-style-type: none"> <li>• Lubrication and corrosion protection of mechanisms submerged in seawater or subjected to wave action</li> <li>• Dry docks, ships, submarines</li> <li>• All points requiring P.E. conditions (very high loads), temperature, water resistance and corrosion protection</li> </ul>



PRODUCT	NATURE	STANDARD / SPECIFICATION	PROPERTIES
TH - 10	MINERAL	<b>DIN 51524-2:2017-06 “Druckflüssigkeiten – Hydrauliköle – Teil 2: Hydrauliköle HLP-10; Mindestanforderungen”</b>	Hydraulic power transmissions where high temperatures, corrosion due to water ingress, or where oils with anti-wear properties are required
TH - 22	MINERAL	<b>DIN 51524 parte 2 (HLP) Berichtigung 1 “Druckflüssigkeiten –Hydrauliköle –Teil 2:Hydrauliköle HLP-22; Mindestanforderungen”</b>	Lubrication of surfaces under heavy intermittent loads, such as aircraft combustion engine starter gears and bearings and sliding surfaces subject to relatively slow sliding motions
TH - 23	MINERAL	<b>• AFNOR NFE 48603-HL • DIN 51524 parte 2 (HLP) Berichtigung 1 “Druckflüssigkeiten –Hydrauliköle –Teil 2:Hydrauliköle HLP-46; Mindestanforderungen”</b>	<ul style="list-style-type: none"> <li>• Hydraulic transmissions where corrosion due to water ingress occurs, or where oils with anti-wear properties are required.</li> <li>• Typical hydraulic transmissions requiring low viscosities.</li> <li>• Hydraulic transmissions operating at high temperatures.</li> <li>• Heat exchange or thermal systems.</li> <li>• Hydrostatic systems operating at high pressure such as steam turbines, vertical water turbines.</li> <li>• Air compressors but where the air discharge temperature is moderate.</li> <li>• Inverted tooth chains and rollers.</li> <li>• Plain and rolling bearings operating at medium speeds and loads</li> </ul>
TH - 24	MINERAL	<b>DIN 51524-3: 2017-06 “Druckflüssigkeiten – Hydrauliköle – Teil 3: Hydrauliköle HVLP-46; Mindestanforderungen”</b>	Hydraulic power transmissions where high temperatures, corrosion due to water ingress, where oils with anti-wear properties are required or where oils with a minimum dependence on viscosity-temperature behaviour are required for use over a wide temperature range (HV-46)
TH - 32	MINERAL	<b>DIN 51524 parte 2 (HLP) Berichtigung 1 “Druckflüssigkeiten –Hydrauliköle –Teil 2:Hydrauliköle HLP-32; Mindestanforderungen”</b>	Hydraulic transmissions where high temperatures, corrosion due to water ingress, or where oils with anti-wear properties are required



PRODUCT	NATURE	STANDARD / SPECIFICATION	PROPERTIES
TH - 33	MINERAL	<b>DIN 51524 parte 3 (HVLP)</b> "Druckflüssigkeiten –Hydrauliköle –Teil 3:Hydrauliköle HVLP-68; Mindestanforderungen"	Hydraulic transmissions where high temperatures, corrosion due to water ingress, where oils with anti-wear properties are required or where oils with a minimum dependence on viscosity-temperature behaviour are required for use over a wide temperature range
TH - 100	MINERAL	<b>DIN 51524 parte 2 (HLP)</b> "Druckflüssigkeiten –Hydrauliköle – Teil 2:Hydrauliköle HLP ISO 100; Mindestanforderungen"	Hydraulic transmissions where high temperatures, corrosion due to water ingress, or where oils with anti-wear properties are required
H - 515	MINERAL	<ul style="list-style-type: none"> <li>• MIL-PRF-5606H (3) "Hydraulic fluid, petroleum base; aircraft, missile, and ordnance"</li> <li>• OTAN AFLP-3748 Ed A ver 1. (STANAG 3748 Ed. 5) Ausg.4</li> <li>• Otras DEF STAN 91-48 Iss. 2</li> <li>• DCSEA 415/A</li> </ul>	<ul style="list-style-type: none"> <li>• Used in autopilots, shock absorbers, brakes, flap control mechanism.</li> <li>• Sevo-controlled missile hydraulics and other synthetic sealed hydraulic systems and where a super-clean hydraulic fluid is required</li> </ul>
H - 537	SYNTHETIC	<ul style="list-style-type: none"> <li>• MIL-PRF-83282D (1) «Fluido hidráulico, resistente al fuego, hidrocarburo sintético métrico, código OTAN H537»</li> <li>• OTAN AFLP-3748 Ed. A Ver. 1 (STANAG 3748 Ed. 5)</li> <li>• Otras DCSEA 437/B</li> </ul>	Lubrication for autopilots, shock absorbers, air compressor gearboxes, brakes, flap control mechanisms, servo-controlled missile hydraulics and hydraulic systems using synthetic sealing material. For precision hydraulic mechanisms in aviation and ground and missile systems, with synthetic rubber seals or sleeves
H - 540	MINERAL	<ul style="list-style-type: none"> <li>• MIL TL-9150-0035 Ausg.8</li> <li>• "Hydraulikflüssigkeit, Erdölbasis; NATO Kode: H-540; BW-Kode: Hy5025 A"</li> <li>• OTAN TL-9150-0035 Ausg.8</li> </ul>	<ul style="list-style-type: none"> <li>• Lubrication of hydraulic systems such as hydraulic steering, hydraulic lifting mechanisms, recovery equipment and the like.</li> <li>• Mobile hydraulic systems and in industrial applications, torque converters, turbo clutches and all automatic transmissions used as servo-mechanisms where this level of quality is required</li> </ul>
H - 542	MINERAL	<b>AFLP-7093 Ed. V Ver. 1 (STANAG 7093 Ed. 5)</b>	Used in braking systems of any motor vehicle, such as passenger cars, trucks, buses or trailers
H - 544	SYNTHETIC	<ul style="list-style-type: none"> <li>• MIL-PRF-46170E "Hydraulic fluid, rust inhibited, fire resistant, synthetic hydrocarbon base,</li> <li>• NATO code No. H-544".TL 9150-0097 Ausg. 4</li> </ul>	<ul style="list-style-type: none"> <li>• Used in mechanisms and systems of military land vehicles and hydraulic elastic organs.</li> <li>• Contains corrosion inhibitors and can be used as a preservative for hydraulic systems and components. It is thermally stable and highly fire resistant</li> </ul>
H - 548	MINERAL	<ul style="list-style-type: none"> <li>• MIL AFLP-7093 Ed. A ver. 1" Guide specification for NATO land system automotive fluids"</li> <li>• OTAN AFLP-7093 Ed. A ver. 1 (STANAG 7093 ED.3)</li> <li>• OTRAS DCSEA 403/D</li> </ul>	<ul style="list-style-type: none"> <li>• Passenger cars and trucks, mining and agricultural vehicles</li> <li>• Mobile hydraulics and industrial applications, torque converters, turbo clutches and all automatic transmissions used as servo-mechanisms.</li> <li>• Equal viscosity hydraulic systems for very severe service due to wear and extreme pressure conditions as well as extreme temperature conditions. DEXRON III/H</li> </ul>



## HYDRAULIC FLUIDS

PRODUCT	NATURE	STANDARD / SPECIFICATION	PROPERTIES
<b>H - 572</b>	<b>MINERAL</b>	<ul style="list-style-type: none"> <li>• <b>MIL BS 4475:2000 “Straight mineral lubricating oils”</b></li> <li>• <b>OTAN BS 4475:2000</b></li> </ul>	Hydraulic systems, hydraulic mechanisms of gunnery systems and naval remote control equipment. ISO VG 68
<b>H - 573</b>	<b>MINERAL</b>	<ul style="list-style-type: none"> <li>• <b>Especificación nacional MIL-PRF-17672D y MIL-PRF-17672E “Hydraulic fluid, petroleum, inhibited”</b></li> <li>• <b>Especificación-Guía OTAN STANAG 4601 Ed. 2</b></li> <li>• <b>Otras especificaciones STM 422A</b></li> </ul>	Naval hydraulic mechanisms where hydraulic fluids with good lubricating, anti-corrosion and anti-rust properties are required and where fire resistant hydraulic fluids are not required. VG 46
<b>H - 575</b>	<b>MINERAL</b>	<b>MIL-DTL-1711E Amd.1 “ Fluid, power transmission”</b>	Specially formulated for the transmission of hydraulic energy
<b>H - 576</b>	<b>MINERAL</b>	<b>AFLP-4601 Ed. B Ver. 1 (STANAG 4601 Ed. 4)</b>	Hydraulic fluid for naval machinery, tools, forklift trucks and some combat vehicles; and as a lubricant in some artillery and radar equipment, when the ambient temperature is not below -30 °C. VG 32
<b>H - 579</b>	<b>SYNTHETIC</b>	<b>MIL-H-22072C Notice 2“Hydraulic fluid, catapult, NATO code number H-579”</b>	Lubrication of hydraulic power transmission systems in on-board aircraft launch catapults

PRODUCT	NATURE	STANDARD / SPECIFICATION	PROPERTIES
<b>TC - 11</b>	<b>MINERAL</b>	<b>MIL-PRF-81309H (1) "Corrosion preventive compounds, water displacing, ultra-thin film"</b>	Use on all metal surfaces for initial protection, during storage and in service, as well as on avionics equipment, electrical connection pins and contact points. Good ability to prevent corrosion and displace water
<b>C - 620</b>	<b>MINERAL</b>	<b>MIL-PRF-16173E (2) "Corrosion preventive compound, solvent cutback, cold-application"</b>	Corrosion protection of internal and external surfaces of machinery, gears, instruments, bearings or materials in the open air, with or without protective wrapping
<b>C - 623</b>	<b>MINERAL</b>	<b>MIL-PRF-16173E (2) "Corrosion preventive compound, solvent cutback, cold-application"</b>	Protection of metals exposed to weathering for long periods or corrosion protection in general, for exterior or interior surfaces, where a dry protective film is required
<b>C - 633</b>	<b>MINERAL</b>	<b>MIL-C-11796C (1) "Corrosion preventive compound, petrolatum, hot application"</b>	Protection during outdoor storage of military equipment (gun tubes, etc.); corrosion protection of small metal parts, packaged or unpackaged; protection for long-term indoor storage of highly finished metal surfaces (recoil mechanisms)
<b>C - 634</b>	<b>MINERAL</b>	<b>DEF STAN 68-10 Is. 5 "Corrosion preventive, water displacing. NATO code: C-634 Joint Service Designation: PX-24"</b>	Protección de ciertos motores de turbina de gas y superficies metálicas en uso o almacenamiento a corto plazo. Puede ser utilizado en equipos eléctricos de baja tensión (hasta 440 V)
<b>C - 635</b>	<b>MINERAL</b>	<ul style="list-style-type: none"> <li>• MIL-PRF-6083G "Hydraulic fluid, petroleum base; for preservation and operation"</li> <li>• AFLP-7093 Ed. C Ver. 1 (STANAG 7093 Ed. 5)</li> <li>• DE STAN 80-142 Iss 2 Amd. 1</li> <li>• DCSEA 535/A</li> </ul>	Protection of certain gas turbine engines and metal surfaces in use or short-term storage. Can be used on low voltage electrical equipment (up to 440 V)
<b>C - 640</b>	<b>MINERAL</b>	<b>MIL-PRF-21260E (1) "Lubricating oil, internal combustion engine, preservative break-in"</b>	Lubricating and initial break-in protection oil for internal combustion engines. Also used as a fluid in transmissions, gearboxes and hydraulic systems of some tactical vehicles
<b>C - 642</b>	<b>MINERAL</b>	<ul style="list-style-type: none"> <li>• Especificación nacional MIL-PRF-21260E "Lubricating oil, internal combustion engine, preservative break-in"</li> <li>• Especificación-Guía OTAN MIL-PRF21260E</li> <li>• Otras especificaciones DEF STAN 80-34 Iss. 3 Amd. 1535/A</li> </ul>	Lubrication and protection, in the break-in period (until the first oil change), in reciprocating internal combustion engines. Also used as a power transmission and hydraulic fluid in some tactical vehicles, and for crankcase lubrication of two and four-stroke engines









## SPECIAL AND MISCELLANEOUS PRODUCTS

PRODUCT	NATURE	STANDARD / SPECIFICATION	PROPERTIES
<b>S - 740</b>	<b>POWDER</b>	<b>DEF STAN 68-62 Iss. 2</b>	Lubrication between sliding surfaces at both high and low speeds, over a wide temperature range
<b>S - 743</b>	<b>MINERAL</b>	<b>DEF STAN 91-38 Is. 3 "Petrolatum, technical Joint Service Designation: PX-6. Petrolatum, technical NATO code S-743 Joint Service Designation: PX-7"</b>	Thin film lubricant for use as a corrosion protector
<b>S - 750</b>	<b>GLICOL</b>	<ul style="list-style-type: none"> <li>• <b>Especificación nacional A-A-52624A "Antifreeze, multi-engine type"</b></li> <li>• <b>Especificación-Guía OTAN AFLP-7093 Ed. A Ver 1 (STANAG 7093 Ed. 3)</b></li> </ul>	Antifreeze for tactical and administrative vehicle engines
<b>S - 753</b>	<b>WHITE SPIRIT</b>	<b>MIL-PRF-680C (1) "Degreasing solvent"</b>	Degreasing and cleaning of painted or unpainted metal parts, when a high flash point is required
<b>S - 757</b>	<b>GLICOL</b>	<b>AFLP 7093 Ed. V Ver.1</b>	Antifreeze for internal combustion engines with ferrous and non-ferrous material components, mixed with water. The freezing temperatures to be exceeded depend on the % product/water mixture and are marked on the packaging. It is supplied in concentrate and uses 50% water/ product
<b>S - 758</b>	<b>MINERAL</b>	<b>MIL-PRF-63460F "Cleaner, lubricant and preservative for weapons and weapons systems"</b>	Cleaning, lubrication and short term protection of military small arms
<b>TS - 759</b>	<b>GLICOL</b>	<b>DCSEA 615/E</b>	Antifreeze for internal combustion engines with ferrous and non-ferrous material components, mixed with water. It is supplied diluted to 50% in demineralised water





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*HI-TECH LUBRICANTS*

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