

GENERAL ENGINEERING

Customised range of General Engineering Lubricants



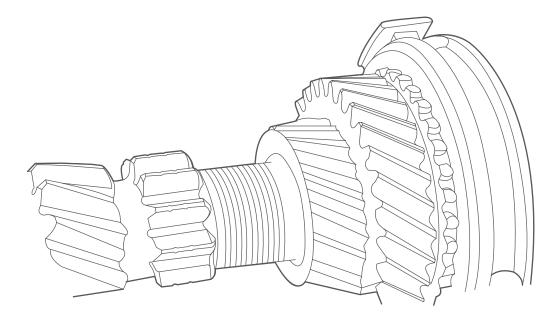
www.molygraph.com

GENERAL ENGINEERING

The General Engineering division at Molygraph offers a range of speciality lubricant solutions for Industrial Electrical and Mechanical Maintenance. Molygraph has tailored solutions for bearings, chains, slides, wire ropes, gears, nuts and bolts and many other applications that are routinely exposed to harsh and severe conditions. Molygraph also has a range of lubricants which have been specially developed for food grade applications and are NSF-H1 & HALAL certified. Molygraph's MRO range comprises of a comprehensive range of greases, rust preventives, cleaners and degreasers, multipurpose lubricants and crack detection kits which are available in bulk and aerosol form for optimised application and ease of use.

Molygraph's specialised formulations provide extended relubrication intervals and longer component life and thus ensure a more effective scheduled maintenance program.

Molygraph products are available in a wide variety of packing options. From 180 kg drums to 25 kg / 20 kg pails to 1 kg jars we have the right pack size to suit your needs.



O1 | GREASES & PASTES

HIGH TEMPERATURE GREASES

Conventional greases cannot withstand continuous high operating temperatures. Molygraph's specially formulated grease chemistries give unsurpassed performance in critical high temperature applications. These greases provide superior oxidation properties, and high thermal stability.



Hot air blowers, conveyor chains bearings, furnace door hinges and applications exposed to high temperatures and corrosive atmospheres.

PRODUCTS	BASE OIL H	BASE OIL F VISCOSIT 40°C (cSt)	☐ NLGI ☐ GRADE	DROPPING POINT (°C)	OPERATING TEMPERATURE (°C)
NMG 460	Mineral / Inorganic	460	#2	Non-Melt	-20/+180
NYECORR 140	PFPE / PTFE	510	#2	Non-Melt	-20/+250
PUG 9000 H	Mineral / Polyurea	460	#2	+ 270	-20/+180
PUG 1000 H	Mineral / Polyurea	100	#2	+ 270	-20/+180
PUG 9500 HS	Synthetic Polyurea	460	#2	+ 270	-20/+180
SGH 200 S	Mineral / CaSx	460	#2	+ 300	-20/+180

EXTREME PRESSURE GREASES

Molygraph offers a full range of high performance greases for general applications that easily outperform conventional greases. These greases are fortified with solid lubricants, EP and AW additives. They reduce friction, wear and tear and offer good rust protection, that results in the reduction of overall maintenance costs.



Suitable for bearings and sliding mechanisms subjected to extreme pressures and high loads.

PRODUCTS	≓ THICKENER ⊨	BASE OIL	■ NLGI == GRADE	DROPPING = POINT (°C)	OPERATING TEMPERATURE (°C)
BRB 30	Lithium	Mineral	#2	+ 180	-20/+140
LONG LIFE 2 PREMIUM	Lithium Complex	Mineral	#2	+ 250	-20/+160
SUPER GREASE EP 2	Lithium	Mineral	#2	+ 180	-20/+120

MULTIFUNCTIONAL GREASES

Industrial applications contain a multitude of conditions and factors that pose a challenge to effective lubrication. Wide temperature ranges, high loads, water ingress, humidity and other extreme conditions can lead to lubrication failure. Molygraph has developed a range of Multifunctional greases that can withstand these challenging conditions and provide unparralled performance.



Bearings and sliding surfaces exposed to heavy loads, water ingress and wide temperature range.

PRODUCTS =	BASE OIL H	VISCOSITY @ 40°C (cSt)	□ NLGI	DROPPING = POINT (°C)	OPERATING
MFG 220	Mineral / Lithium Complex	220	#2	+ 260	-20/+160
MFG 460 EP	Mineral / Lithium Complex	460	#2	+ 250	-20/+160
MPG 2 RED	Mineral / Lithium Complex	150	#2	+ 260	-20/+160
MFG 150 ST 3	Mineral / Lithium	120	#2	+180	-20/+120
LSG 33	Silicon / Lithium	100	#2	+180	-40/+200
NYE RHEOLUBE 462	Synthetic / Lithium	32	#2	+180	-54/+130
SGH 100 S	Mineral / CaSx	220	#2	+300	-20/+180
ULTRATACK™ MILL GREASE 460	Mineral / CaSx	460	#3/2	+300	-20/+180

GREASES FOR CENTRALISED LUBRICATION SYSTEMS

Enclosed gearboxes, motors and other critical systems have a centralised lubrication mechanism. Normal greases have low pump ability and are thus unsuitable. Molygraph has a range of highly pumpable fluid greases that provide long life lubrication, good rust and corrosion protection and excellent water resistance.



Centralised Lubrication Systems.

PRODUCTS	THICKENER	BASE OIL	NLGI GRADE	OPERATING TEMPERATURE (°C)
MPG EPLF 0/00/000	Lithium	Mineral	#0 / #00 / #000	-20/+120

HIGH SPEED GREASE

Designed to perform at high speed and low tempreatures, where minimum friction / low torque is required during startup and running in. High DN value ensure that the grease at high speed does not get thrown off from the bearing.

PRODUCTS	BASE OIL	BASE OIL VISCOSITY @ 40°C (cSt)	≓ NLGI ⊨ GRADE	DROPPING POINT (°C)	OPERATING TEMPERATURE (°C)	
ULTRASYN® 9090	Synthetic / Barium complex	22	#2	+220	-40/+150	

WATER RESISTANT GREASES

Water ingress is always a factor in heavy industrial applications. Conventional greases are easily washed out resulting in frequent lubrication and high maintenance downtime. Molygraph's range of water resistant greases have excellent water washout properties and are resistant to coolants and provide good protection against rust and corrosion.



Bearings, gear couplings and applications where water resistance is required.

PRODUCTS	BASE OIL THICKENER	BASE OIL VISCOSITY @ 40°C (cSt)	─ NLGI ─ GRADE	☐ DROPPING ☐ POINT (°C)	OPERATING TEMPERATURE (°C)
SG 180 / 500 / 1000	Mineral / Lithium Complex	180 / 500 / 1000	# ₂	+ 180	-20/+140

OPEN GEAR GREASES

Open gears require specialised lubricants that withstand heavy loads, have enhanced adhesion and carefully selected solid lubricants. Our open gear greases prevent squeeze out and overcome pitting corrosion. They also contain additives to withstand extreme pressure and high loads.

PRODUCTS ===	THICKENER	BASE OIL WISCOSITY @ 40°C (らt)	⊨ NLGI ⊨ GRADE	FOUR BALL WELD LOAD (KG)	OPERATING TEMPERATURE (°C)
SPRAYLUBE 1250/2500	Aluminium Complex	1250 / 2500	#00	800	-25/+180

CHAIN & WIRE ROPE GREASE

Lubrication of wire ropes is essential to promote longer service life and low maintenance costs. Molygraph's wire rope lubricants reduce friction between strands and rope bends. They also protect strand surfaces against rust and corrosion due to its resistance to water and emulsification.



Wire Ropes and Chains.

ſ	PRODUCTS	THICKENER	Ħ BASE OIL ⊨	☐ NLGI ☐ GRADE	DROPPING = POINT (°C)	OPERATING TEMPERATURE (°C)
	CRG 100/1	Lithium	Mineral	#1	180	-10/+140
	CRG 100/M	Inorganic	Highly Refined Mineral Oil	#00	Non-Melt	-30/+140

ROBOT GREASE

Molygraph's new range of greases for precision gears in robotic applications has been developed to meet the increasing demands and performance requirements for high performance robot maintenance. The Droid grease series provide optimised film formation and boundary lubrication and reduces down time.



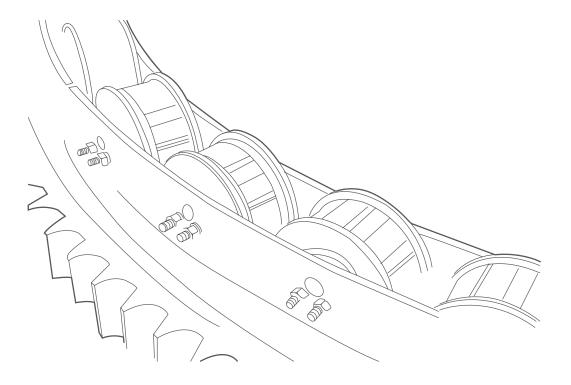
Sliding gears in robotic assemblies.

F	PRODUCTS	THICKENER	─ NLGI	DROPPING POINT (°C)	OPERATING TEMPERATURE (°C)
	DROID GREASE 0	Lithium	#0	+190	-40/+130
	DROID GREASE 00	Lithium	#00	+195	-40/+130

ANTISEIZE FOR THREADS, NUTS & BOLTS

Threaded connections, nuts and bolts operating under high pressure and temperature tend to seize if effective lubrication is not provided. Molygraph's antisieze compounds with a blend of different solid lubricants provides excellent anti seize and load carrying characteristics at high temperatures. It prevents threaded parts from galling, distortion and breaking. It also guards against rust and fretting corrosion.

PRODUCTS	BASE =	SOLID = LUBRICANT	SURFACE AREA COVERAGE (KG/M²)	OPERATING TEMPERATURE (°C)
AS 10	Mineral	MoS ₂	40-45	-30/+450
KOPAL® - Kopalube	Mineral	Copper	45-50	-20/+1100
KOPAL® 1000	Synthetic	Copper	40-45	-20/+1100
KOPAL® Premium	Mineral	Copper	40-45	-20/+1100



O2 | LUBRICATING OILS

GEAR OILS

Industrial gear oils are expected to perform under conditions of high heat and heavy loads, and in environments often contaminated with dirt, debris and water. To combat these difficult conditions Molygraph offers a range of gear oils in different chemistries & viscosities, specially formulated for lubrication of enclosed gear boxes.



Enclosed Gear Boxes.

PRODUCTS	BASE OIL	FLASH POINT (°C)	POUR POINT (°C)	COPPER CORROSION (RATING)
SUPER GEAR OIL EP 150/220/320/460	Mineral	+ 220	-20	1b
ULTRAGEAR GLIDE 150/220/320/460/680	Mineral + Liquid MoS ₂	+ 220	-20	1a
ULTRAGEAR SYN 150/220/320/460/680/1000	PAO	+ 240	-42	1b
GEAR OIL PG 150/220/320/460/680/1000	Polyglycol	+ 270	-20	1a
LONG LIFE 0/100 (NLGI #0 & 00 consistency)	Mineral	+ 220	-20	1a

CONVEYOR CHAIN OILS

Molygraph's Stenol series of conveyor chain oils are able to meet the demanding requirements of chain lubricants and prevents residue build-up and offers effective lubrication with low evaporation at high temperatures. They also increase the life of the chain.

Conveyor Chains.

PRODUCTS	■ BASE OIL ■	VISCOSITY @ 40°C (cSt)	FLASH POINT (°C)	OPERATING TEMPERATURE (°C)
STENOL® 50 - CHAINLUBE 50	Synthetic	175	+ 280	Upto +200
STENOL® 220	Synthetic	220	+ 280	Upto +225
STENOL® PREMIUM 100	Synthetic	100	+ 300	Upto +250
STENOL® PREMIUM 220	Synthetic	220	+300	Upto +250

O3 | FOOD GRADE LUBRICANTS (NSF)





FOOD GRADE GREASES OILS & GEAR OILS

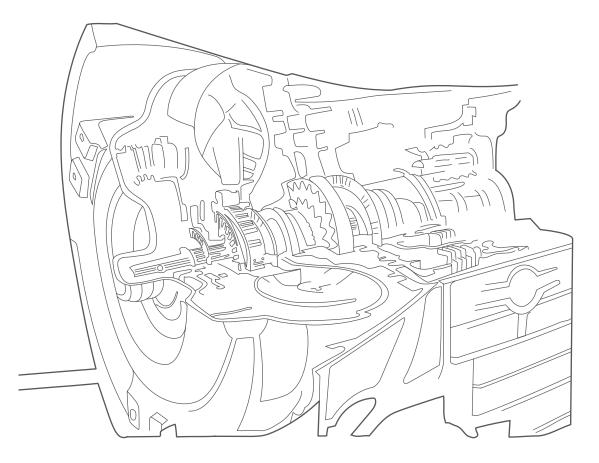
The SAFOL® range of NSF& HALAL certified food grade grease, gear oils and general lubrication oils have been a mainstay for the lubrication of gears, bearings and other sliding surfaces which have incidental food contact. Carefully formulated with special additives these oils give unmatched lubrication.



Gears, bearings and other sliding surfaces

PRODUCTS ====	≓ BASE OIL ⊨	VISCOSITY @ 40°C (cSt)	FLASH POINT (°C)	OPERATING == TEMP (°C)	OERTIFIED
SAFOL® GEAR OILS 150/220/320/460	Synthetic	150/220/ 320/460	+260	-40/+220	H1
SAFOL® LUBRICATING OILS - 22/32/46/68/100	Synthetic	22/32/46 68/100	+260	-40/+220	H1
SAFOL® CHAIN OIL 220	Synthetic	220	+300	Upto +250	H2

PRODUCTS	BASE OIL THICKENER	─ NLGI ─ GRADE	DROPPING POINT (°C)	OPERATING = TEMP (°C)	NSF CERTIFIED
SAFOL® FGG	Food Grade / Aluminium Complex	#2 / #1 / #0 / #00	+ 200	-20/+120	H1



O4 | ELECTRICAL & MECHANICAL MAINTENANCE PRODUCTS

GALVANISED COATINGS

Molygraph's zinc and aluminium galvanised coatings have been developed to seal out moisture and prevent corrosion on metallic surfaces. They are highly resistant to salt water and acidic environments. They can replace hot dip coatings and can be used as a primer prior to painting.

PRODUCTS	APPLICATIONS =
ZINCKOTE	Zinc based cold galvanised coating. Contains high purity zinc providing excellent adhesion and cathodic protection on substrate metals as well as protection from sea water corrosion.
ð	Equipment and installations exposed to corrosive atmosphere.
ALKOTE	Bright aluminum based coating. High purity aluminum provides outstanding cathodic protection as well as resists to temperatures as high at 600°C. Excellent protection against salty and humid environment.
ð	Equipment and installations exposed to corrosive atmosphere.

MULTIPURPOSE LUBRICANTS

Molygraph has an extensive range of lubricants used for maintenance and repair of day to day operating equipment. Our range of oils, sprays, bonded coatings and silicone compounds have been extensively used in challenging conditions and applications and have helped industries in considerable reduction in maintenance downtime and decreased costs.

PRODUCTS =	DESCRIPTON	BENEFITS
EASY LUBE®	Multifunctional Lubricant	Excellent penetrating property. Loosens rust, carbon, dirt etc. Single multifunctional product that cleans, penetrates, lubricates and provides corrosion protection. Dismantling of jammed bolts, nuts, screws, links, chains, hinges, valves and host of other electro mechanical fittings.
ECOSIL™	Silicone based Mold Release	Excellent penetration in hard to reach areas, non-staining and non corrosive and odourless. Low downtime creates increased production efficiency.
ECOSIL™ NS	Non-Silicone Mold Release	Excellent penetration in hard to reach areas. Non-staining & non-corrosion. Especially formulated as a mold release for parts which are required to be painted. No peel off of paint. Improves finish. Low downtime provides increased productivity. Ozone friendly propellant promotes clean environment.
ITC BOND	MoS ₂ Bonded coating	Reduces friction and wear in high pressure sliding surfaces. Prevents seizures at high temperatures and threads from galling. Resists fresh and salt water corrosion. Gears, racks and pinions, splineshafts, plain bearings and threaded parts.
HVG 7	Silicone Based Mold release Compound	An effective release agent for complex rubber and plastic molds. Excellent resistance against chemicals and moisture. Mold release in plastic and rubber parts
HVG 14	Di-electric Compound	Excellent di-electric strength. Prevents electrical shocks and flash overs. Has an extremely low dissipation factor. High voltage line insulators, switches, battery terminals, cable connections, threaded connections in instruments.
HVG 21	High Vaccum Compound	Low volatility & vapour pressure of base. Has very good sealant properties and excellent chemical resistance. It can withstand high pressure of 10-6 torr. Sealant and lubricant for glass joints, stop cocks, plug valves, o rings, seals and gaskets.
HVG 28/6	Valve & Packing Grease	Non-toxic and acts as a strong adhesive sealant. Offers excellent resistance to solvents, as well as hot and cold water. Valves & packing used in chemical industries, as well as hot and cold water lines.

RUST PREVENTIVES

Molygraph has developed a range of rust preventives that have given excellent performance in industrial applications. From heavy duty corrosion protectors to solvent based chemistries, we have every industrial application covered. Molygraphs corrosion protectors displace moisture effectively and thus provide protection from rust, corrosion abrasion and scratches.

Machine parts, forging components, cutting tools, machined components, precision tools.

PRODUCTS	FILM TYPE	CORROSION TEST	PROTECTION PERIOD (MONTH)
NEVERUST® 20	Oily non-drying	≥ 200 hrs salt spray	10-12
NEVERUST® 30	Dry waxy	≥ 150 hrs salt spray	10-12
NEVERUST® 235	Clear transparent and dry	720 hrs humidity test	8-10
NEVERUST® 530	Ultrathin soft	720 hrs humidity test	6-8
NEVERUST® 532	Ultrathin greasy	≤ 190 hours salt spray test	12-14
NEVERUST® 274 LV	Thin and Oily	100 hours salt spray test	8-10

CLEANERS, DEGREASERS & ANTISPATTERS

Safe and effective cleaning should be a mainstay for industrial cleaners and degreasers. Molygraph's range of cleaners, degreasers and anti-spatters have been a benchmark in the MRO industry. Our range of solvent and water based chemistries have been tailored to meet the demanding needs of customers and are suitable for a variety of applications.



Cleaning of electro mechanical assemblies, dies, molds, bearings and various other components.

PRODUCTS		DESCRIPTON
ECOKLEEN PLUS		Water based eco friendly cleaner
U-KLEEN F/E		Fast evaporating universal cleaner & degreaser
SAFEKLEEN	<u> </u>	Online Cleaner & Degreaser
RUSTKLEEN		Rust Cleaner
E-KLEEN		Heavy duty electrical contact cleaner
EASYCLEAN	Ô	Electric & Electronic contact cleaner
ASS 2265	Ô	Anti-Spatter

CRACK DETECTION KIT

The CDK kit developed by Molygraph helps in the detection of microscopic cracks upto 10 micron on metals that cannot be seen with naked eyes. The application is completely non-destructive by nature and due to extremely low chlorine and sulphur contents these products can be used safely on stainless steel, nickel, monel and other exotic metals.



Detection of surface flaws on dies, molds, tools, jigs and welds on pressure vessels subjected to thermal cycles.

PRODUCT		DESCRIPTON
CDK 10		Cleaner
CDK 20	<u>a</u> 0	Dye Penetrant
CDK 30	<u> </u>	Developer



ENGINEERED TO GLOBAL STANDARDS

Molygraph is India's leading engineered lubricants company. For over 32 years we have mastered the art and science of making high quality lubricants, for various industries and applications. At the core of each of our product lies our strong emphasis on Research and Development. Coupled with it comes an extensive understanding of our client's businesses, which helps us develop the right solution for each of our customers.

Apart from developing international quality products we put special focus on customer service. We prefer to solve problems rather than sell products, create value instead of focusing on margins and build long term relationships in place of client acquisitions.

Behind each of our products lies our strong unwavering passion to surpass global standards by continuously investigating in intensive R&D.

It is the quality of our products and service that has made us one of the only Indian companies to have Pan India presence along with some of the most reputable industrial houses as partners.

GLOBAL PRESENCE

ASIA - AFRICA - SOUTH AMERICA

AUTHORISED DISTRIBUTORS

CORE EXPERTISE



PRODUCT LINE

- LubricatingGreases &Pastes
- Lubricating Oils
- Lubricating
 Sprays
- Metal Working
 Fluids
- Rust Preventives
- Cleaners &
 Degreasers
- Solid Lubricant
 Dispersions
- Thread Dope Compounds



APPLICATION AREAS

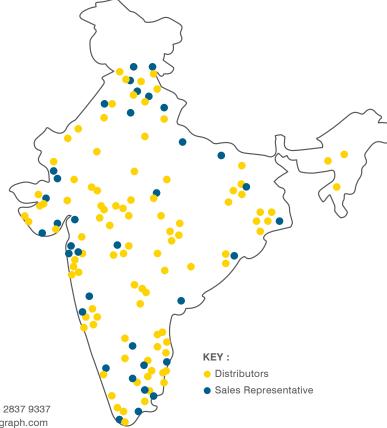
- Bearings
- Chain & Wire Ropes
- Conveyor Chains
- Forging & Extrusion
- Gears
- Metal Cutting
- & Grinding
- Metal Punching
- & Stamping
- Nuts, Bolts & Threads
 - Sheet Metal
 Drawing



BUSINESS VERTICALS

- Automotive
- Food & Pharma
- Forging
- General
 Engineering
- Metal Forming
- Minina
- Oil & Gas
- Steel

PAN INDIA MARKETING AND DISTRIBUTORS NETWORK





Anand Engineers Pvt. Ltd.

66 M.I.D.C., Road No. 13, Andheri (E), Mumbai 400 093. INDIA.

T: +91 22 2821 9292 / 98 / 99 | F: +91 22 2837 9337 E: sales@molygraph.com | W: www.molygraph.com