



MINING

LUBRICATION GUIDE



LEGACY

For over 70 years, Bel-Ray® products have proven their value, setting the highest standards of quality and performance. A leader in lubrication technology, Bel-Ray has engineered products to provide maximum machine protection, delivering superior value for applications in aerospace, automotive, energy, food, marine, military, mining, motorcycle, OEM, powersports, steel, textile and other industries served by our **Powersports, Automotive, Industrial and Mining Divisions**.

SUSTAINABILITY

Environmental Carbon Management (ECM) reduces the overall carbon footprint with responsible waste management and eco-friendly/partially recycled products, packaging, collateral and more. Look for the ECM logo on all Bel-Ray products!

VALUE

- More than 70 years' experience
- On-site R&D
- Unrivalled customer support
- Global distribution
- Strategic network of regional offices

SERVICES

- Lubrication management services
- Lubrication system inspections
- Consumption evaluations
- Routine oil analysis
- Component inspection/failure analysis



Since 1946, Bel-Ray® has been the hardest working lubricant company in the business. Using Bel-Ray to lubricate your machinery gives your entire business a boost. We help reduce costs and increase production across a wide range of industries.

Through our Total Lubricant Partnership (TLP), we help you choose the best solutions for your machinery, always matching the right products to the right applications. Bel-Ray Mining Lubricants are formulated for mining machinery; severe applications working in the harshest environments and climates. With Bel-Ray, each moving part is effectively lubricated helping to reduce energy and lubricant consumption and extending part, component and system service life and increasing production output. Lubrication, maintenance and replacement parts related costs are significantly reduced. Downtime is reduced and uptime is increased increasing productivity and reducing cost of ownership.

Bel-Ray products are formulated to exceed OEM specifications and meet the challenges of mining machinery, manufactured in the USA from domestic and imported components, combining the latest technology with the finest raw materials.

**When you can't afford to take any risks,
Bel-Ray is right for the job.**



FLEX YOUR OPERATION

As part of our commitment to quality and success, Bel-Ray continually develops new products to better serve your mining and industrial needs. For the most current product selection, please visit belray.com.

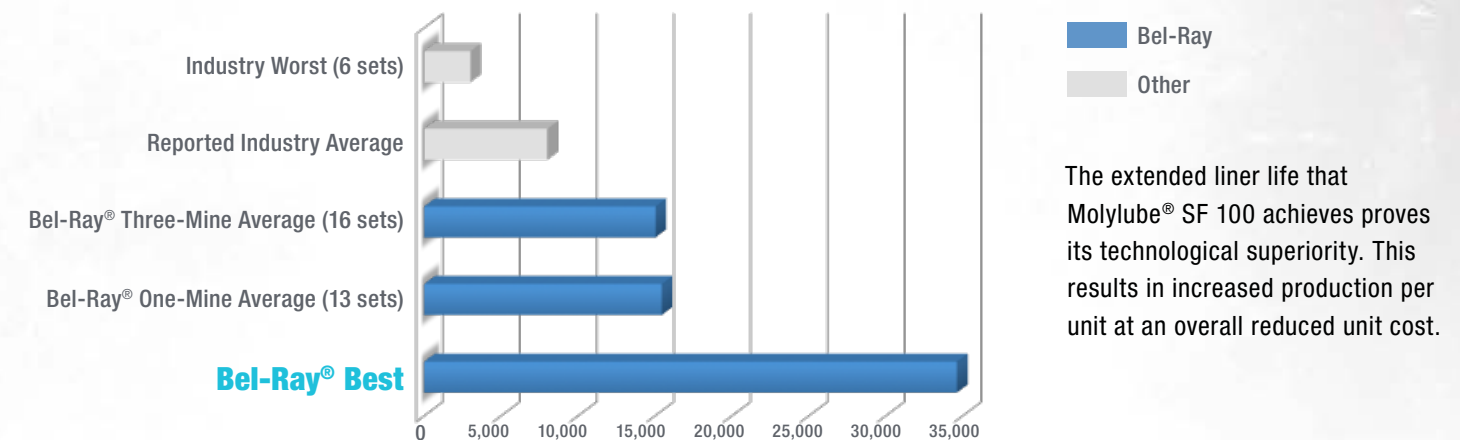
Contact Customer Service at
+1-317-328-5660 or email
customerservice@belray.com for
information on all Bel-Ray products
or for your Specialty Applications.

2

3

Proper lubrication can save time, maximize profits and extend equipment life.

OPERATING HOURS ON LINERS

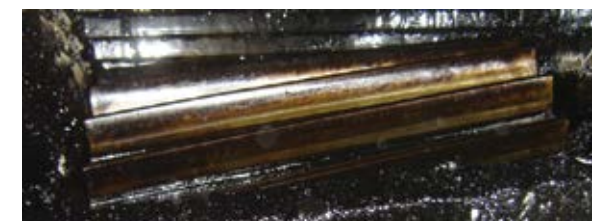


MONEY TALKS.

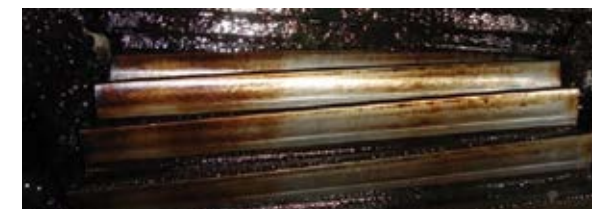
Understand the benefits of a custom-fit lubricant and unleash the savings.

CLEANER GEARS RUN SMOOTHER

These pictures were taken during a conversion to Bel-Ray® Clear Gear Lubricant



Competitor OGL



2 days after conversion to Clear Gear

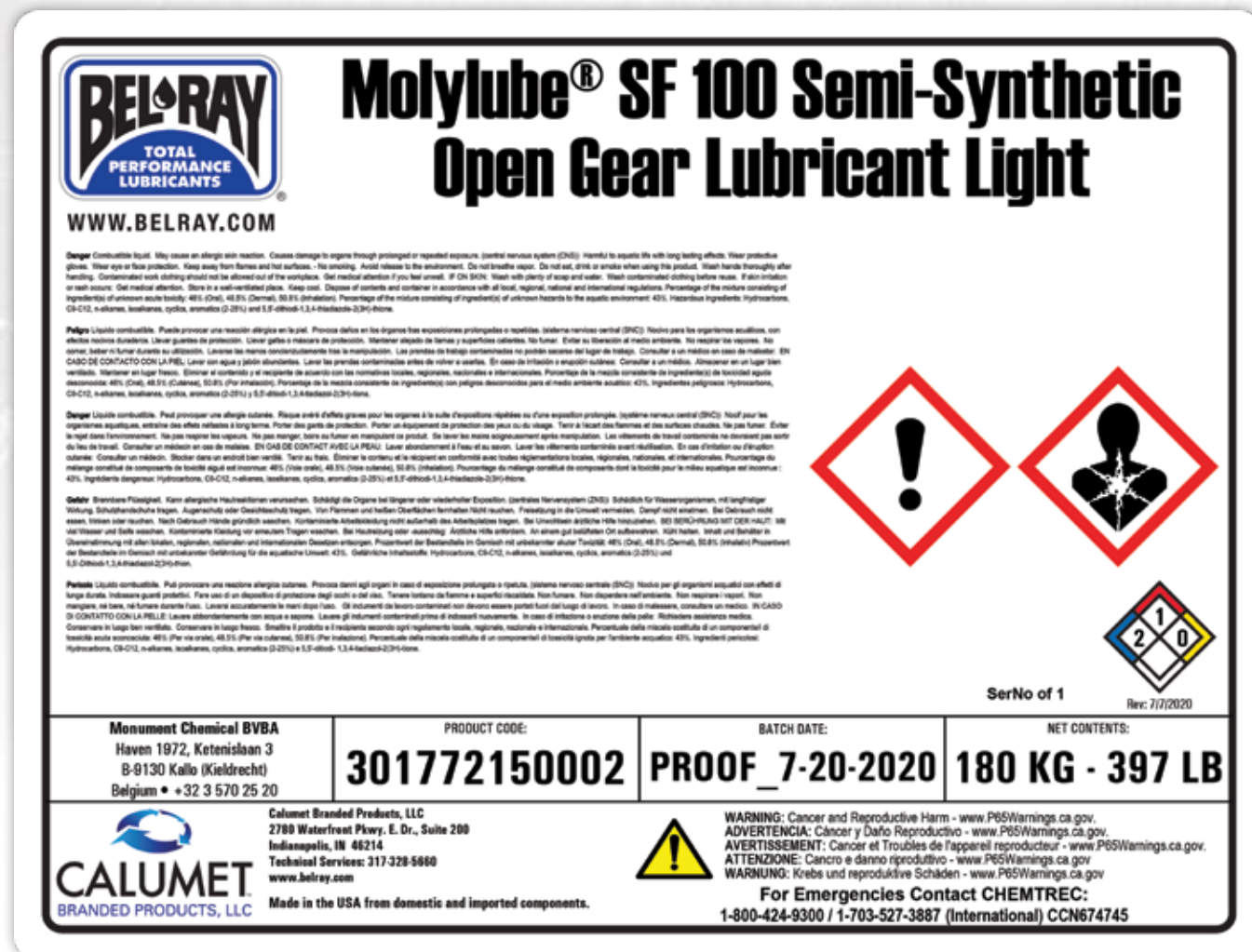


Only 10 days

after conversion to Clear Gear and gear teeth are completely cleaned

PRODUCT LABEL UPDATE

The Bel-Ray® Mining and Industrial products will now feature updated labels that contain the most up to date GHS (Globally Harmonized System of Classification and Labeling of Chemicals) regulatory standards, as well as multilingual regulatory information. In addition to English, the labels include information in Spanish, French, Italian and German. Aerosol products feature regulatory information in 25 languages for global distribution.



GREASE

		Legacy Product Number	New SAP Product Number	Product Grade	Anti-Wear	Extreme Pressure	Rust, Corrosion & Water Resistant	Product Type	Color
1	Biodegradable Multipurpose Extreme Pressure Grease	56851	301544	NLGI 2				 	
2	Molylube® 3% Moly Extreme Pressure Grease LC	67850 67860 67870	301084 300885 301613	NLGI 0 NLGI 1 NLGI 2					
3	Molylube® 5% Moly Extreme Pressure Grease AC	69360 69520 69480 69500	301750 301753 300886 300936	NLGI 0 NLGI 0 NLGI 1 NLGI 2					
4	Molylube® 5% Moly Extreme Pressure Grease LC	67820 67832	301612 301083	NLGI 1 NLGI 2				 	

#

TOP PERFORMER

MINERAL SEMI-SYNTHETIC SYNTHETIC BIODEGRADABLE ECO-FRIENDLY

Technical Questions? Visit belray.com and contact our Technical Services department.

1

BIODEGRADABLE MULTIPURPOSE EXTREME PRESSURE GREASE

APPLICATION



MULTIPURPOSE GREASE

A high-performance, Extreme Pressure grease, with >60% biodegradability, for general purpose lubrication. Vegetable oil-based for excellent biodegradability and high renewable content. Excellent water washout resistance and mechanical and thermal stability. Superior load-carrying capabilities as well as outstanding rust, corrosion and wear protection for extended component life. The rate of biodegradation is performed according to ASTM D5864 (OECD 301B Modified Sturm Test). Useful temperature range -10°C to 70°C (14°F to 158°F).

Thickener: **Organoclay** | Base Oil ISO VG: **100** (NLGI 2) | Speed: Medium

2

MOLYLUBE® 3% MOLY EXTREME PRESSURE GREASE LC

APPLICATION



3% MOLY GREASE

A high-performance, lithium complex grease containing 3% molybdenum disulfide, as required by many off-highway equipment OEMs. Exceptional mechanical and thermal stability, excellent anti-wear and Extreme Pressure properties, unsurpassed rust and corrosion protection and resistance to water. Exceeds all of the multipurpose grease requirements of walking draglines, electric rope shovels and hydraulic excavators and meets the requirements of the all major OEMs for multipurpose Extreme Pressure greases. Useful temperature range -18°C to 177°C (0°F to 350°F).

Thickener: **Lithium Complex** | Base Oil ISO VG: **150** (NLGI 0) **200** (NLGI 1) | Speed: Low Medium

3

MOLYLUBE® 5% MOLY EXTREME PRESSURE GREASE AC

APPLICATION



5% MOLY GREASE

A high performance aluminum complex grease fortified with excellent Extreme Pressure and anti-wear properties for maximum wear protection. Contains 5% molybdenum disulfide as required by many off-highway equipment OEMs. Weld Load on 4-Ball EP test performance of 800 plus kg and Load Wear Index of 135 kg. Exceeds all of the multipurpose grease requirements of walking draglines, electric rope shovels and hydraulic excavators and meets the requirements of the all major OEMs for multipurpose Extreme Pressure greases. Useful temperature range -18°C to 177°C (0°F to 350°F).

Thickener: **Aluminum Complex** | Base Oil ISO VG: **46** (NLGI 0) **150** (NLGI 0) **220** (NLGI 1) **220** (NLGI 2)
Speed: Low Medium

4

MOLYLUBE® 5% MOLY EXTREME PRESSURE GREASE LC

APPLICATION



5% MOLY GREASE

A high-performance, lithium complex grease fortified with 5% molybdenum disulfide as recommended by many equipment manufacturers. Excellent Extreme Pressure capabilities as well as outstanding mechanical and thermal stability. Unsurpassed rust and corrosion protection and resistance to water. Exceeds all of the multipurpose grease requirements of walking draglines, electric rope shovels and hydraulic excavators and meets the requirements of the Caterpillar (Bucyrus International) SD4711 and Joy Global P&H 472 standards for multipurpose greases. Useful temperature range -18°C to 177°C (0°F to 350°F).

Thickener: **Lithium Complex** | Base Oil ISO VG: **220** (NLGI 1) **460** (NLGI 0) | Speed: Speed: Low Medium



		Legacy Product Number	New SAP Product Number	Product Grade	Anti-Wear	Extreme Pressure	Rust, Corrosion & Water Resistant	Product Type	Color
1	Molyube® 87M Extreme Pressure Grease	20250	301187	NLGI 1				M	
2	Molyube® Extreme Pressure Grease AC	23220 23240	301201 301696	NLGI 1 NLGI 2				M	
3	Molyube® Extreme Pressure High-Viscosity Grease	20254 20264	301679 301682	NLGI 1 NLGI 2				M E	

TOP PERFORMER

M

 MINERAL

SS

 SEMI-SYNTHETIC

S

 SYNTHETIC

B

 BIODEGRADABLE

E

 ECO-FRIENDLY

Technical Questions? Visit belray.com and contact our Technical Services department.

1

MOLYLUBE® 87M EXTREME PRESSURE GREASE

APPLICATION

M

MULTIPURPOSE GREASE

Molyube 87M EP Grease is an aluminum complex multi-purpose grease. It contains Molyube Solids, a Bel-Ray proprietary blend of molybdenum disulfide and select graphite to reduce operating temperature and wear. Molyube 87M EP Grease is designed to extend the service life of machine components in the severe duty applications encountered in mining, quarrying, construction, cement and other heavy industries. Molyube 87M EP Grease is especially effective when used to lubricate the suspension components of heavy-duty equipment such as excavators, dozers, loaders and haul trucks.

Thickener: Aluminum Complex | Base Oil ISO VG: 150 (NLGI 1) | Speed: Low

L

 Medium

M

2

MOLYLUBE® EXTREME PRESSURE GREASE AC

APPLICATION

EP

EXTREME PRESSURE GREASE

A severe-duty, impact-resistant, aluminum complex grease fortified with molybdenum disulfide. Excellent Extreme Pressure capabilities, outstanding mechanical and thermal stability. Exceptional water washout resistance, rust and corrosion protection. Exceeds all of the multipurpose grease requirements of walking draglines, electric rope shovels and hydraulic excavators and meets the requirements of all major OEMs for multipurpose Extreme Pressure greases. Useful temperature range -12°C to 177°C (10°F to 350°F).

Thickener: Aluminum Complex | Base Oil ISO VG: 150 (NLGI 0) 220 (NLGI 1) 150/220 (NLGI 1)
Speed: Low

L

 Medium

M

3

MOLYLUBE® EXTREME PRESSURE HIGH-VISCOSITY GREASE

APPLICATION

HV

HIGH-VISCOSITY GREASE

A high viscosity base oil aluminum complex grease fortified with molybdenum disulfide and Extreme Pressure additives. Excellent mechanical and thermal stability. Highly water resistant. Grade 680-1 is Komatsu approved. Useful temperature range 0°C to 177°C (32°F to 350°F).

Thickener: Aluminum Complex | Base Oil ISO VG: 680 (NLGI 1) 680 (NLGI 2) | Speed: Low

L

 Medium

M





		Legacy Product Number	New SAP Product Number	Product Grade	Anti-Wear	Extreme Pressure	Rust, Corrosion & Water Resistant	Product Type	Color
1	Molylube® High Temperature Grease	17830	301184	NLGI 1					
2	Molylube® Low-Temperature Multipurpose Grease	46420	301042	NLGI 1				 	
3	Molylube® Multipurpose Extreme Pressure Grease with Moly	40900 40920	301524 301209	NLGI 1 NLGI 2					



TOP PERFORMER

MINERAL SEMI-SYNTHETIC SYNTHETIC BIODEGRADABLE ECO-FRIENDLY

Technical Questions? Visit belray.com and contact our Technical Services department.

1

APPLICATION

HT
HIGH-TEMP GREASE

MOLYLUBE® HIGH TEMPERATURE GREASE

A synthetic, ester-based high-temperature grease with molybdenum disulfide, designed specifically for extended lubrication cycles in heavily loaded applications. Useful temperature range -18°C to 316°C (0°F to 600°F).

Thickener: Sodium Complex | Base Oil ISO VG: 150/220 (NLGI 1) | Speed: Low Medium

2

APPLICATION

LT
LOW-TEMP GREASE

MOLYLUBE® LOW-TEMPERATURE MULTIPURPOSE GREASE

An aluminum complex grease fortified with Molylube® Solids. Excellent Extreme Pressure capabilities. Outstanding mechanical and thermal stability. Exceptional water washout resistance, rust and corrosion protection. It has excellent pumpability characteristics for exceptionally cold ambient conditions. Useful temperature range -40°C to 149°C (-40°F to 300°F).

Thickener: Aluminum Complex | Base Oil ISO VG: 46 (NLGI 1) | Speed: Medium High

3

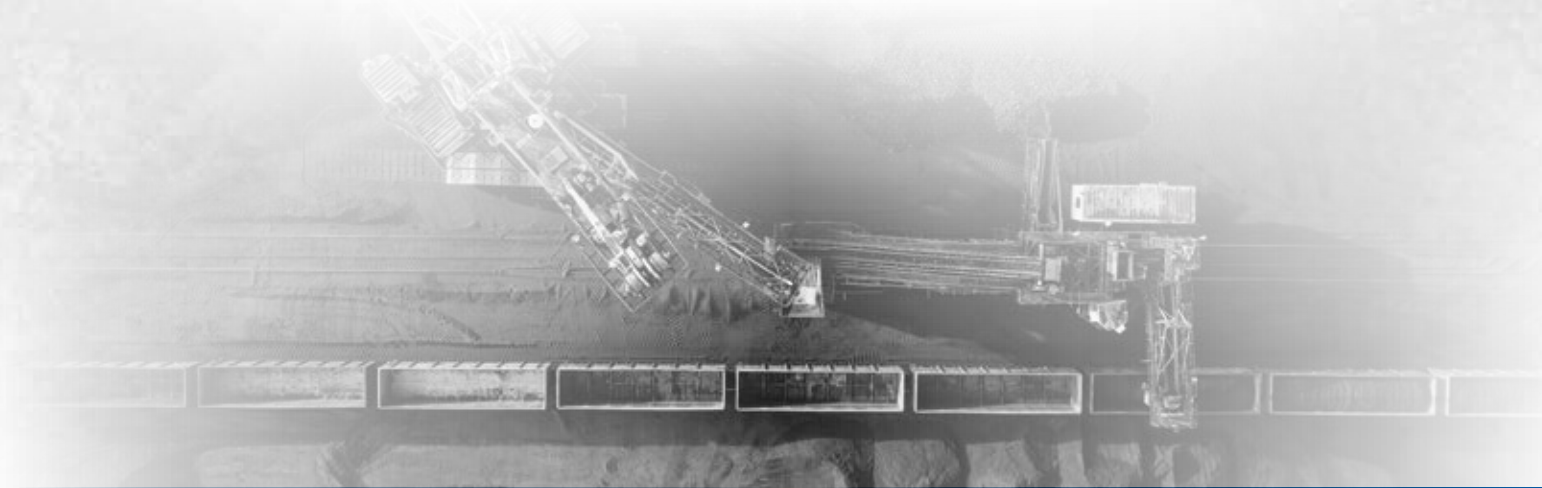
APPLICATION

EP
EXTREME PRESSURE GREASE

MOLYLUBE® MULTIPURPOSE EXTREME PRESSURE GREASE WITH MOLY

An aluminum complex, multipurpose grease fortified with molybdenum disulfide for effective heavy-duty service. Outstanding mechanical and thermal stability to withstand shock and heavy loading found in severe environments of mining, construction and process industries. Exceptional water washout resistance, rust and corrosion protection. Exhibits good cohesive and adhesive characteristics. Exceeds all of the multipurpose grease requirements of walking draglines, electric rope shovels and hydraulic excavators and meets the requirements of all major OEMs for multipurpose Extreme Pressure greases. Useful temperature range -26°C to 177°C (-15°F to 350°F).

Thickener: Aluminum Complex | Base Oil ISO VG: 220 (NLGI 1) | Speed: Low Medium





		Legacy Product Number	New SAP Product Number	Product Grade	Anti-Wear	Extreme Pressure	Rust, Corrosion & Water Resistant	Product Type	Color
1	Termalene® Heavy-Duty Construction Grease	72560	301338	NLGI 2					Red
2	Termalene® Multipurpose Extreme Pressure Grease	72420 72440	301765 301091	NLGI 1 NLGI 2					Red
3	Waterproof Grease	99540	301293	NLGI 2				 	Green



TOP PERFORMER

MINERAL SEMI-SYNTHETIC SYNTHETIC BIODEGRADABLE ECO-FRIENDLY

Technical Questions? Visit belray.com and contact our Technical Services department.

1

APPLICATION

HD
HEAVY DUTY GREASE

Extremely tacky, red, aluminum complex grease. Excellent load carrying capabilities. Exceptional water resistance. Useful temperature range -9°C to 177°C (15°F to 350°F).

Thickener: Aluminum Complex | Speed: Low Medium

2

APPLICATION

M
MULTIPURPOSE GREASE

A red, general purpose, aluminum complex grease. Excellent extreme pressure and anti-wear properties provide superior machine protection. Useful temperature range -9°C to 120°C (15°F to 250°F).

Thickener: Aluminum Complex | Speed: Low Medium

3

APPLICATION










WP
WATERPROOF MULTIPURPOSE GREASE

A very tacky, green, general purpose mixed thickener grease. Fortified with synthetic polymers for superior waterproof properties and rust/corrosion inhibitors, this grease is ideal for wet environments. Useful temperature range -20°C to 177°C (-4°F to 350°F).

Thickener: Al - Ba Complex | Speed: Low Medium



GEAR OIL HYDRAULIC & ENGINE

		Legacy Product Number	New SAP Product Number	Product Grade	Anti-Wear	Extreme Pressure	Rust, Corrosion & Water Resistant	Product Type	Color
1	100 Gear Oil Extreme Pressure Gear Oil	21420 21440 21470 21480 21500 21520	301692 301195 301196 301197 301198 301693	ISO 150 ISO 220 ISO 320 ISO 460 ISO 680 ISO 1000				M	Red
2	Heavy-Duty Diesel Engine Oil	61580	301054	SAE 15W-40				M	Yellow
3	Raylene Ashless Multi-Viscosity Hydraulic Oil	71750	300938	46				M E	Green

TOP PERFORMER

M MINERAL

SS SEMI-SYNTHETIC

S SYNTHETIC

B BIODEGRADABLE

E ECO-FRIENDLY

Technical Questions? Visit belray.com and contact our Technical Services department.

1

100 GEAR OIL EXTREME PRESSURE GEAR OIL

APPLICATION



GENERAL
PURPOSE
GEAR OIL

An exceptional heavy-duty gear oil formulated for all types of gearing. It provides Extreme Pressure and anti-wear properties. Boasts 100-pound Timken OK Load, FZG 12+ Load Stages and 4500 pound true load value Falex EP Test, excellent demulsibility, and exceeds manufacturers' specifications. Forty-year history of exceptional performance leading to extended component life. Exceeds all of the enclosed gear oil requirement of walking draglines, electric rope shovels and hydraulic excavators and meets the requirements of all major mining OEM requirements for enclosed gear oil. ISO VG 320 is approved against the Caterpillar SD4720 standard for electric rope shovels' enclosed gear cases. Grades ISO VG 150, ISO VG 220 are Bosch Rexroth approved.

2

HEAVY-DUTY DIESEL ENGINE OIL

APPLICATION



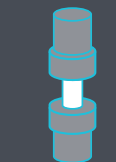
DIESEL
ENGINE OIL

An exceptional motor oil formulated for use in diesel and gasoline engines where extended oil drain intervals are desired. Provides superior lubrication performance in heavy-duty diesel or gasoline engine applications commonly found in the mining, transportation and marine industries. API SL/CI-4. An excellent oil for mixed fleet use. TBN 14 base level for extended change intervals.

3

RAYLENE ASHLESS MULTI-VISCOSITY HYDRAULIC OIL

APPLICATION



HYDRAULIC OIL

An premium ashless, zinc-free hydraulic oil designed for high and low pressure hydraulic systems. Exceptional Extreme Pressure and anti-wear properties protect pump and other components in severe operating conditions. Contains foam, corrosion and oxidation-inhibitors. Its high viscosity index and low pour point to ensure excellent fluidity on cold starts. Approved by Racine.



		Legacy Product Number	New SAP Product Number	Product Grade	Anti-Wear	Extreme Pressure	Rust, Corrosion & Water Resistant	Product Type	Color
1	Raylene Extreme Pressure Oil	71660	301334	ISO 1000				 	
2	Raylene Hydraulic Fluid	60160	301784	68					
3	Synthetic Gear Oil	66900 66920 66940 66960 66980	301321 301605 301606 301607 301608	ISO 220 ISO 320 ISO 460 ISO 680 ISO 1000				 	



TOP PERFORMER

MINERAL SEMI-SYNTHETIC SYNTHETIC BIODEGRADABLE ECO-FRIENDLY

Technical Questions? Visit belray.com and contact our Technical Services department.

1

RAYLENE EXTREME PRESSURE OIL

APPLICATION

GENERAL PURPOSE GEAR OIL

An exceptional heavy-duty gear oil formulated for all types of gearing. Provides Extreme Pressure and anti-wear properties. Boasts a 100 pound Timken OK Load and FZG 12+ Load Stages. Provides micropitting protection. Excellent thermal stability and demulsibility. Does not contain hazardous chemicals such as chlorine, lead, zinc or antimony.

2

RAYLENE HYDRAULIC FLUID

APPLICATION

HYDRAULIC OIL

A mainline anti-wear hydraulic oil that meets the general requirements of industrial hydraulic systems. Also suitable for a broad range of applications including hydraulic and circulating systems, turbines, pumps, bearings, light to moderate duty enclosed gears and general machinery lubrication. Typical 6,000 hour service life. DIN 51 524 (HLP) performance.

3

SYNTHETIC GEAR OIL

APPLICATION

GENERAL PURPOSE GEAR OIL

A full synthetic PAO and ester gear lubricant. Outstanding Extreme Pressure and anti-wear properties, as well as excellent viscosity-temperature properties. Extremely low coefficients of friction and traction. Compatible with mineral oils. Exceeds all of the enclosed gear oil requirement of walking draglines, electric rope shovels and hydraulic excavators. Grades ISO VG 220 thru ISO VG 680 are approved by Flender. Grade ISO VG 460 is approved by Le Tourneau for electric drivers. Grades ISO VG 220 thru ISO VG 460 are approved by Bosch Rexroth. ISO VG 680 is approved by General Electric and Komatsu for wheel motor applications. Grade ISO VG 320 is approved against the Caterpillar SD4720 standard for electric rope shovel enclosed gear cases.



OPEN GEAR LUBRICANTS

		Legacy Product Number	New SAP Product Number	Product Grade	Anti-Wear	Extreme Pressure	Rust, Corrosion & Water Resistant	Product Type	Color
1	Clear Gear Lubricant	21324 21325 21326	301688 301193 301689	Medium Standard Heavy				S E	Yellow
2	Molyube® Mill Gear Compound	76980	301771	N/A				M	Black
3	Molyube® Mill Gear Grease	76992	301343	Heavy				M E	Grey

TOP PERFORMER M MINERAL SS SEMI-SYNTHETIC S SYNTHETIC B BIODEGRADABLE E ECO-FRIENDLY

Technical Questions? Visit belray.com and contact our Technical Services department.

1

CLEAR GEAR LUBRICANT

APPLICATION



OPEN GEAR OIL

A high-viscosity synthetic hydrocarbon-based open gear lubricant formulated for grinding mill, kiln and other process open gear systems. Provides full fluid film or hydrodynamic lubrication. Completely fluid and freely drains from shrouds and tooth roots. Allows for gear tooth inspections without complete cleaning. Metso Mineral and Outotec approved. Reduces lubricant consumption and gear and pinion temperature. Reduces or eliminates noise and vibration.

2

MOLYUBE® MILL GEAR COMPOUND

APPLICATION



OPEN GEAR LUBRICANT

A high-viscosity open gear lubricant designed for mill and process open gears. This product forms a strong tenacious paste-like film, providing maximum protection in the load zone greatly reducing consumption. Contains a volatile solvent that ensures fluidity during application. Contains Molyube® Solids. Meets ANSI/AGMA 9005-E02 specification for minimum viscosity recommendations for open gearing intermittent lubricant application and for gravity feed or forced drip lubrication of open gears. Approved by Metso Minerals.

3

MOLYUBE® MILL GEAR GREASE

APPLICATION



OPEN GEAR LUBRICANT

An aluminum complex, semi-fluid gear lubricant specifically formulated to provide superior lubrication of Type 2 open gear systems. It provides excellent retention characteristics, yet it drains freely from shrouds and tooth roots. Superior Extreme Pressure, anti-wear and anti-rust capability for extended component life while reducing consumption. Contains Molyube® Solids. Heavy Grade - Metso Minerals approved.

		Legacy Product Number	New SAP Product Number	Product Grade	Anti-Wear	Extreme Pressure	Rust, Corrosion & Water Resistant	Product Type	Color
1	Molylube® Gear Tac Tacky Open Gear Lubricant	68940	301746	Medium Light				E	
2	Molylube® SF 100 Semi-Synthetic Open Gear Lubricant	76990 77000 77010 77020 77070 77030	301772 300939 301344 301773 301345 301774	Light Heavy Medium Arctic Sub-Arctic Ultra Heavy				SS	
3	Molylube® Shovel & Dragline Lubricant	70620 70626 70628	301755 301088 301756	Medium Heavy Extra Heavy				M	
4	Molylube® Ultra Open Gear Lubricant	N/A 78015 78020	500908 301094 301777	High Dust Medium Light Medium				M	

TOP PERFORMER

M MINERAL

SS SEMI-SYNTHETIC

S SYNTHETIC

B BIODEGRADABLE

E ECO-FRIENDLY

Technical Questions? Visit belray.com and contact our Technical Services department.

1

MOLYLUBE® GEAR TAC TACKY OPEN GEAR LUBRICANT

APPLICATION

OPEN GEAR LUBRICANT

A high-viscosity paraffinic oil chemically fortified with Molylube® Solids and Extreme Pressure additives. Proprietary polymer technology promotes superior retention properties, minimizing consumption and housekeeping. Maintains lube film in wet conditions. Exceeds all of the open gear lubricant requirements of walking draglines, electric rope shovels and hydraulic excavators and meets the requirements of the Joy Global P&H 464 standards for open gear lubricants. Can be applied through a centralized system to temperatures as low as -29°C (-20°F).

2

MOLYLUBE® SF 100 SEMI-SYNTHETIC OPEN GEAR LUBRICANT

APPLICATION

EXTREME PRESSURE GREASE

A 20+ year standard from the Bel-Ray OGL lineup but still a state-of-the-art lubricant that excels as a multi-service dragline and shovel lubricant. An aluminum complex grease fortified with Molylube® solids in a semi-synthetic base oil. Excellent Extreme Pressure and anti-wear properties. Proven unsurpassed performance in bushings. Exceeds all of the open gear lubricant requirements of walking draglines, electric rope shovels and hydraulic excavators and meets the requirements of Joy Global P&H 464 and 520 standards for open gear and multiservice lubricants. Can be applied through a centralized system to temperatures as low as -50°C (-58°F).

3

MOLYLUBE® SHOVEL & DRAGLINE LUBRICANT

APPLICATION

OPEN GEAR LUBRICANT

A mineral oil-based, aluminum complex, multi-service lubricant for temperate climates. Perfect for the climates of Africa, Australia, parts of the United States and South America. Contains Molylube® Solids. Provides excellent anti-wear and Extreme Pressure properties. Exceeds all of the open gear lubricant requirements of walking draglines, electric rope shovels and hydraulic excavators and meets the requirements of the Joy Global P&H 464 standard for open gear lubricants. Can be applied through a centralized system to temperatures as low as -5°C (-23°F).

4







MOLYLUBE® ULTRA OPEN GEAR LUBRICANT

APPLICATION

OPEN GEAR LUBRICANT

Current state-of-technology for dragline and electric rope shovel open gear lubrication. Exceeds all current standards for Extreme Pressure and anti-wear with a 1000+ kg Four Ball EP Test Weld Load and a 220+ kg Load Wear Index. Excellent film formation and maintenance capabilities. Exceeds all of the open gear lubricant requirements of walking draglines, electric rope shovels and hydraulic excavators and meets the requirements of the Caterpillar and Joy Global P&H 464 standards for open gear lubricants.

SPECIALTY

		Legacy Product Number	New SAP Product Number	Product Grade	Anti-Wear	Extreme Pressure	Rust, Corrosion & Water Resistant	Product Type	Color
1	6 in 1® Multipurpose Lubricant	12300 12310 (Aerosol)	301179 300873 (Aerosol)	3 3				M E	Yellow
2	Electric Switch Contact Black Grease	54850	301216	100 (Base), NLGI 2				M E	Black
3	Electric Switch Contact White Grease	51100	301532	220/320 (Base), NLGI 2				M E	White
4	High-Temperature Anti-Seize Compound	44500	301526	68 (Base), NLGI 1				S	Brown

TOP PERFORMER M MINERAL SS SEMI-SYNTHETIC S SYNTHETIC B BIODEGRADABLE E ECO-FRIENDLY

Technical Questions? Visit belray.com and contact our Technical Services department.

1

6 IN 1® MULTIPURPOSE LUBRICANT

APPLICATION



AEROSOL

A high-performance semi-synthetic multipurpose lubricant. The exceptional lubricating and penetrating properties make the removal of frozen fasteners, rusted bolts and fittings fast and easy. Displaces water, cleans as it lubricates and provides excellent rust protection. USDA H2 rated and is highly recommended for protection of electrical contacts and connections in damp environments.

2

ELECTRIC SWITCH CONTACT BLACK GREASE

APPLICATION



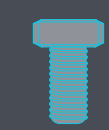
ANTI-SIEZE

Non-melting, anti-seize paste with PTFE and moly for exceptional low frictional properties and load-carrying ability of sliding surfaces and thread applications. Use will result in break-away torque, a positive measure of its effectiveness. Thermal stability prevents seizing, galling, deterioration and minimizes friction for a long and useful life.

3

ELECTRIC SWITCH CONTACT WHITE GREASE

APPLICATION



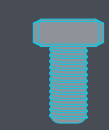
ANTI-SIEZE

A clean, non-melting anti-seize paste with PTFE for exceptional low frictional properties and load-carrying ability of sliding surfaces and thread applications. Thermal stability prevents seizing, galling, deterioration and minimizes friction for a long and useful life.

4

HIGH-TEMPERATURE ANTI-SIEZE COMPOUND

APPLICATION



ANTI-SIEZE

An outstanding anti-seize and lubricating compound for threaded connections, splines and similar applications where an anti-seize is recommended. Prevents galling, rust, fretting, galvanic pitting, seizure and corrosion. Its unique blend of graphite and copper lubricating solids allows for exceptional performance at both elevated and ambient temperatures. Approximate K-Factor is 0.175 and coefficient of friction is 0.13. Useful temperature range -29°C to 1093°C (-20°F to 2000°F).



		Legacy Product Number	New SAP Product Number	Product Grade	Anti-Wear	Extreme Pressure	Rust, Corrosion & Water Resistant	Product Type	Color
1	Kiln Car Grease	45810	300994	32 (Base), NLGI 1				<div>S</div> <div>E</div>	
2	Molylube® Anti-Seize Compound	67710 67700	301610 301082	NLGI 1 NLGI 2				<div>M</div>	
3	Molylube® Anti-Seize Silicone Compound with Moly	14600	300988	NLGI 2				<div>SS</div> <div>E</div>	
4	Molylube® Cam Compound L-56	67760	301611	NLGI 2				<div>M</div> <div>E</div>	



TOP PERFORMER

M

 MINERAL

SS

 SEMI-SYNTHETIC

S

 SYNTHETIC

B

 BIODEGRADABLE

E

 ECO-FRIENDLY

Technical Questions? Visit belray.com and contact our Technical Services department.

1

KILN CAR GREASE

APPLICATION



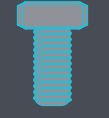
HIGH-TEMP GREASE

A synthetic, high-temperature kiln car lubricating grease containing high-performance graphite capable of lubrication up to 538°C (1000°F).

2

MOLYLUBE® ANTI-SEIZE COMPOUND

APPLICATION



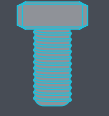
ANTI-SIEZE

A non-melting, organoclay grease with 40% of molybdenum disulfide and graphite lubricating solids. An outstanding anti-seize and lubricating compound for threaded connections, splines and similar applications where and anti-seize is recommended. Superb rust/corrosion protection. Approximate K-Factor is 0.1 and coefficient of friction is 0.13.

3

MOLYLUBE® ANTI-SEIZE SILICONE COMPOUND WITH MOLY

APPLICATION



ANTI-SIEZE

Molylube Anti-Seize Silicone Compound with Moly, commonly known as Bel-Ray Molylube 16 Silicone, is an anti-seize compound containing a high percentage of molybdenum disulfide. The base fluid is silicone, which offers excellent high- and low-temperature characteristics

4

MOLYLUBE® CAM COMPOUND L-56

APPLICATION



ROLLING WALK LUBRICANT

A product formulated to exceed the lubrication requirements of the rolling cam walking system commonly seen on Caterpillar (Bucyrus) walking draglines. A proprietary blend of lubricating solids, EP and anti-wear additive ensure excellent film formation, cam and rail separation and temperature reduction. Low friction properties eliminates vibration and stick-slip. Can be pumped to temperatures as low as -34°C (-30°F) without heat.



		Legacy Product Number	New SAP Product Number	Product Grade	Anti-Wear	Extreme Pressure	Rust, Corrosion & Water Resistant	Product Type	Color
1	Molylube® Copper Tool Joint Compound	21020	301190	NLGI 1				M	
2	Non-Melt Wire Rope Coating Grease	40060	301206	3				E	
3	Semi-Fluid Grease	43520	301206	N/A				M	
4	Slide & Cam Lubricant	64310 64330	301595 301596	Medium Light				M	

TOP PERFORMER

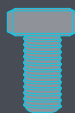
MINERAL SEMI-SYNTHETIC SYNTHETIC BIODEGRADABLE ECO-FRIENDLY

Technical Questions? Visit belray.com and contact our Technical Services department.

1

MOLYLUBE® COPPER TOOL JOINT COMPOUND

APPLICATION



ANTI-SIEZE

A brushable, aluminum complex grease formulated to lubricate threaded drill pipe connections at ‘make-up.’ Its adhesive property ensures that the product stays in application during all phases of the drilling operation. Absence of lead, antimony or other heavy metals creates low environmental impact. Excellent rust-prevention properties. Lubricating solids prevent seizing and galling, ensuring easy assembly and disassembly. Resists shrinkage and contains a hydrogen-sulfide scavenger. Approximate K-Factor is 0.1 and coefficient of friction is 0.12.

2

NON-MELT WIRE ROPE COATING GREASE

APPLICATION



WIRE ROPE GREASE

A non-melting grease that is formulated for optimum water resistance, adhesion, mechanical stability, corrosion and oxidation resistance. Forms a barrier film protecting and sealing the rope. Passes the EPA Static Sheen Test. Can be manually applied or with all Clamp-type pressurized lubricators.

3

SEMI-FLUID GREASE

APPLICATION



SPECIALTY GEAR OIL

A semi-fluid aluminum complex lubricant that provides superior water repellence and heat resistance while remaining stable to protect against severe shock loads. For use in semi-enclosed or leaky gear cases. This lubricant is rheopectic (shear thickening) to control leakage. Exceptional Extreme Pressure properties.

4

SLIDE & CAM LUBRICANT

APPLICATION



DRAGLINE CAM & SLIDE

A product specifically formulated to exceed the requirements of Bucyrus 2500W Series dragline cam and slide propel mechanism. Its exceptional Extreme Pressure and low friction properties provide protection for plain bearings and sliding surfaces while reducing metal-to-metal contact and minimizing component wear under the most severe operating conditions, thereby extending component life. Its unique mechanical stability maintains the necessary viscosity even under high-load and high-shear conditions.



		Legacy Product Number	New SAP Product Number	Product Grade	Anti-Wear	Extreme Pressure	Rust, Corrosion & Water Resistant	Product Type	Color
1	Synthetic Chain Lubricant	58750	301232	220				<div>S</div> <div>E</div>	
2	Synthetic Ester Compressor Oil	58150 58160	301226 301227	46 68				<div>S</div> <div>E</div>	
3	Waterproof Chain Lubricant	66410	300883	680				<div>M</div> <div>E</div>	
4	Wire Rope Lubricant	66680 (High Viscosity) 66700 (Low Viscosity)	301602 301603	N/A				<div>M</div> <div>E</div>	

TOP PERFORMER

M

 MINERAL

SS

 SEMI-SYNTHETIC

S

 SYNTHETIC

B

 BIODEGRADABLE

E

 ECO-FRIENDLY

Technical Questions? Visit belray.com and contact our Technical Services department.

1 SYNTHETIC CHAIN LUBRICANT

APPLICATION

CHAIN LUBRICANT

A superb synthetic ester chain lubricant designed for Extreme Pressure and high temperature applications. Useful temperature range -23°C (-10°F) to 204°C (400°F).

2 SYNTHETIC ESTER COMPRESSOR OIL

APPLICATION

COMPRESSOR LUBRICANT

A high performance, ester-based compressor lubricant. Excellent water separation and anti-wear properties. Low residue formation and high solvency eliminate deposits. Suitable for rotary screw and vane and reciprocating units.

3 WATERPROOF CHAIN LUBRICANT

APPLICATION

AEROSOL

A heavy-duty, long-lasting lubricant for chains especially in wet environments. Exceptional Extreme Pressure and anti-wear properties protect chain components in the severest service. Available in bulk and Aerosol.

4 WIRE ROPE LUBRICANT

APPLICATION

WIRE ROPE GREASE

A specially formulated penetrating lubricant for wire ropes. Can be applied directly onto wet ropes while providing excellent adhesive properties, reducing consumption. Prevents inner strand corrosion and rubbing wear. It is an all-season product that does not require change of grades as temperatures fluctuate. Applicable manually or through most automatic lube systems. Useful temperature range -46°C to 60°C (-50°F to 140°F).

PRODUCT GRADE		AVAILABLE PACKAGING		PAGE #
100 GEAR OIL EXTREME PRESSURE GEAR OIL				
ISO 150	Drum 301692150007			13
ISO 220	264 Gal Tote 301195150340	Drum 301195150007		13
ISO 320	Drum 301196150007			13
ISO 460	Drum 301197150007			13
ISO 680	264 Gal Tote 301198150340	Drum 301198150007		13
ISO 1000	264 Gal Tote 301693150340	Drum 301693150007		13
6 IN 1® MULTIPURPOSE LUBRICANT				
3	Drum 301179150007	Aerosol 300873150285		21
BIODEGRADABLE MULTIPURPOSE EXTREME PRESSURE GREASE				
NLGI 2	Keg 301544150014			5
CLEAR GEAR LUBRICANT				
Medium	Drum 301688150002			17
Standard	Drum 301193150002			17
Heavy	Drum 301689150002			17
ELECTRIC SWITCH CONTACT BLACK GREASE				
NLGI 2	Pail 301216150025			21
ELECTRIC SWITCH CONTACT WHITE GREASE				
NLGI 2	Pail 301532150025	Keg 301532150013		21
HEAVY-DUTY DIESEL ENGINE OIL				
SAE 15W-40	Drum 301054150007			13
HIGH TEMPERATURE ANTI-SEIZE COMPOUND				
NLGI 1	Pail 301526150025			21
KILN CAR GREASE				
NLGI 1	Drum 300994150002			23
MOLYLUBE® 3% MOLY EXTREME PRESSURE GREASE LC				
NLGI 0	Flexi-Bag Tote 301084150526			5
NLGI 1	Flexi-Bag Tote 300885150526	Lined Drum 300885150004		5
NLGI 2	Lined Drum 301613150004			5
MOLYLUBE® 5% MOLY EXTREME PRESSURE GREASE AC				
NLGI 0	Flexi-Bag Tote 301753150526	Spacekraft Tote 301750150335	Lined Drum 301753150004	5
NLGI 1	3000 lb Tote 300886150330	Flexi-Bag Tote 300886150526	Lined Drum 300886150004	5
NLGI 2	Drum 300936150002			5
MOLYLUBE® 5% MOLY EXTREME PRESSURE GREASE LC				
NLGI 1	Flexi-Bag Tote 301612150526			5
NLGI 2	Flexi-Bag Tote 301083150526			5
MOLYLUBE® 87M EXTREME PRESSURE GREASE				
NLGI 0	Lined Drum 301187150004			7

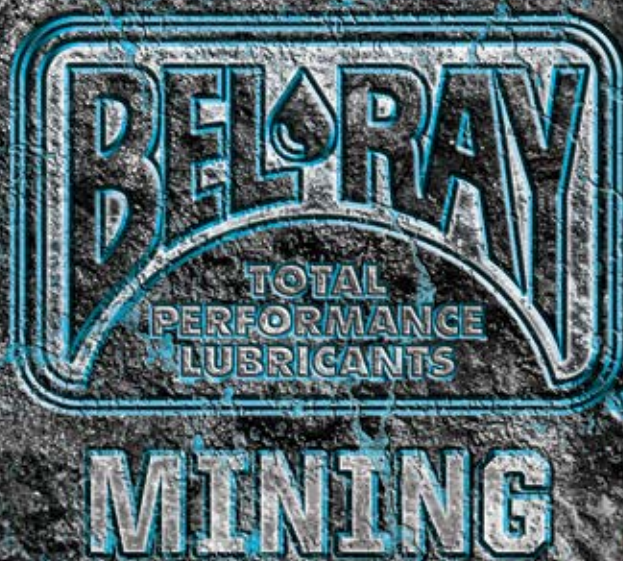
MOLYLUBE® ANTI-SEIZE COMPOUND					
NLGI 1	Pail 301610150025				23
NLGI 2	Pail 301082150025	Caulking Cartridge 301082150251			23
MOLYLUBE® ANTI-SEIZE SILICONE COMPOUND WITH MOLY					
NLGI 2	10 oz Brush Top 300988150260				23
MOLYLUBE® CAM COMPOUND L-56					
NLGI 2	Drum 301611150002				23
MOLYLUBE® COPPER TOOL JOINT COMPOUND					
NLGI 1	Pail 301190150025				25
MOLYLUBE® EXTREME PRESSURE GREASE AC					
NLGI 1	Lined Drum 301201150004				7
NLGI 2	Drum 301696150002	Cartridge 301696150230			7
MOLYLUBE® EXTREME PRESSURE HIGH VISCOSITY GREASE					
NLGI 1	Lined Drum 301679150004				7
NLGI 2	Lined Drum 301682150004				7
MOLYLUBE® HIGH TEMPERATURE GREASE					
NLGI 1	Cartridge 301184150230				9
MOLYLUBE® GEAR TAC TACKY OPEN GEAR LUBRICANT					
Medium Light	Lined Drum 301746150004				19
MOLYLUBE® LOW-TEMPERATURE MULTIPURPOSE GREASE					
NLGI 1	Flexi-Bag Tote 301042150526	Lined Drum 301042150004			9
MOLYLUBE® MILL GEAR COMPOUND					
N/A	Lined Drum 301771150004				17
MOLYLUBE® MILL GEAR GREASE					
Heavy	Drum 301343150002				17
MOLYLUBE® MULTIPURPOSE EXTREME PRESSURE GREASE WITH MOLY					
NLGI 1	Drum 301524150002	Lined Drum 301524150004			9
NLGI 2	Flexi-Bag Tote 301209150526	Lined Drum 301209150004			9
MOLYLUBE® SF100 SEMI-SYNTHETIC OPEN GEAR LUBRICANT					
Light	3000 lb Tote 301772150325	Flexi-Bag Tote 301772150526	Drum 301772150002	Lined Drum 301772150004	19
Medium	Lined Drum 301344150004	Caulking Cartridge 301344150251			19
Heavy	Drum 300939150002				19
Ultra Heavy	Spacekraft Tote 301774150335	Drum 301774150002			19
Arctic	Flexi-Bag Tote 301773150526	Drum 301773150002			19
Sub-Arctic	Flexi-Bag Tote 301345150526				19
MOLYLUBE® SHOVEL & DRAGLINE LUBRICANT					
Medium	Drum 301755150002				19
Heavy	Spacekraft Tote 301088150335				19
Extra Heavy	Spacekraft Tote 301756150335				19

MOLYLUBE® ULTRA OPEN GEAR LUBRICANT				
High Dust	Lined Drum 500908150004			19
Medium Light	Spacekraft Tote 301094150335	Lined Drum 301094150004		19
Medium	Lined Drum 301777150004			19
NON-MELT WIRE ROPE COATING GREASE				
3	Pail 301206150025			25
RAYLENE ASHLESS MULTI-VISCOSITY HYDRAULIC OIL				
46	264 Gal Tote 300938150340	Drum 300938150007		13
RAYLENE EXTREME PRESSURE OIL				
ISO 1000	Drum 301334150007			15
RAYLENE HYDRAULIC FLUID				
68	5 Gal Tin Can 301784150023			15
SEMI-FLUID GREASE				
N/A	Pail 301212150025			25
SLIDE & CAM LUBRICANT				
Light	Flexi-Bag Tote 301596150526			25
Medium	Flexi-Bag Tote 301595150526			25
SYNTHETIC CHAIN LUBRICANT				
220	Drum 301232150007			27
SYNTHETIC ESTER COMPRESSOR OIL				
46	Pail 301226150025			27
68	Drum 301227150007			27

SYNTHETIC GEAR OIL				
ISO 220	Drum 301321150007			15
ISO 320	264 Gal Tote 301605150340	Drum 301605150007		15
ISO 460	Drum 301606150007			15
ISO 680	264 Gal Tote 301607150340	Drum 301607150007		15
ISO 1000	Drum 301608150007			15
TERMALENE® HEAVY-DUTY CONSTRUCTION GREASE				
NLGI 2	Drum 301338150002	Cartridge 301338150230		11
TERMALENE® MULTIPURPOSE EXTREME PRESSURE GREASE				
NLGI 1	Lined Drum 301765150004			11
NLGI 2	Lined Drum 301091150004	Cartridge 301091150230		11
WATERPROOF CHAIN LUBRICANT				
680	Aerosol 300883150285			27
WATERPROOF GREASE				
NLGI 2	Drum 301293150002	Cartridge 301293150230	16 oz Tub 301293150225	11
WIRE ROPE LUBRICANT				
High Viscosity	264 Gal Tote 301602150340	Drum 301602150007		27
Low Viscosity	Pail 301603150025			27

Blank lined area for notes on page 32.

Blank lined area for notes on page 33.



BELRAY.COM

1060 N CAPITOL AVE | SUITE 6-401 | INDIANAPOLIS, IN | 46204 USA

TEL +1-317-328-5660 CUSTOMERSERVICE@BELRAY.COM FAX +1-732-938-4232

830292

© 2024 Calumet Branded Products, LLC