### THE SYNTHETIC EXPERT

The industrial and racing markets associate outstanding quality and superior performance with Royal Purple. This reputation has been earned through Royal Purple's relentless pursuit of excellence in lubrication.

Royal Purple formulates the most advanced lubricants available on the market today. If you currently use Royal Purple's products, you already know this. If you do not, they offer the opportunity to greatly improve the reliability and efficiency of your equipment and to lower your operating costs.

#### **SUPERIOR PRODUCTS, SUPERIOR PERFORMANCE**

Lubricants are typically viewed as a commodity, where low price and service issues dominate purchase decisions. Therefore, oil companies seeking large market share have a great incentive to keep manufacturing costs low and little incentive to upgrade lubricant quality.

Royal Purple recognizes that lubricants are not a commodity. Reliable operation of rotating equipment critically depends upon the quality of the lubricant used. Lubricant performance directly and significantly affects how long, how reliable, how efficient and at what cost (i.e. parts, labor, downtime, number of oil changes and energy costs) your equipment will operate. Therefore, Royal Purple will always provide you with the highest quality lubricants available anywhere.



## PULP & PAPER

For additional product offerings and applications, check out our sister companies listed below:



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### PULP & PAPER

INDUSTRIAL LUBRICANT APPLICATIONS

| PAPER MACHINE LUBRICATION |                       |                 |            |                    |                           |  |
|---------------------------|-----------------------|-----------------|------------|--------------------|---------------------------|--|
| LOCATION & EQUIPMENT      | RECOMMENDED LUBRICANT | VISCOSITY GRADE | NGLI GRADE | BASE OIL VISCOSITY | PRODUCT NUMBER            |  |
| Oil Lube System           | Synfilm® GT           | 150 / 220       |            |                    | 301982 / 301477           |  |
| Grease Applications       | Paper Mill Grease     |                 | 1.5        | 244                | 301965                    |  |
| <b>Gear Applications</b>  | Synergy <sup>®</sup>  | Various         |            |                    | Contact Technical Service |  |
|                           | Synfilm® GT           | Various         |            |                    | Contact Technical Service |  |
|                           | Thermyl-Glyde®        | Various         |            |                    | Contact Technical Service |  |

| TURBINE LUBRICATION        |                              |                 |                           |  |  |
|----------------------------|------------------------------|-----------------|---------------------------|--|--|
| LOCATION & EQUIPMENT       | RECOMMENDED LUBRICANT        | VISCOSITY GRADE | PRODUCT NUMBER            |  |  |
| Steam Turbines             | Synfilm® GT                  | 32 / 46 / 68    | 301985 / 301987 / 301013  |  |  |
| Gas Turbines               | Synfilm® GT                  | 32              | 301985                    |  |  |
| Turbine Hydraulic Controls | Marine Hydraulic (zinc free) | 32 / 46 / 68    | 301887 / 301431 / 300966  |  |  |
|                            | Syndraulic®                  | 32 / 46 / 68    | 301470 / 301265 / 301471  |  |  |
| Turbine Lift Gears         | Synfilm® GT                  | Various         | Contact Technical Service |  |  |
|                            | Thermyl-Glyde®               | Various         | Contact Technical Service |  |  |

| BEARING LUBRICATION                |                           |                 |            |                    |                           |
|------------------------------------|---------------------------|-----------------|------------|--------------------|---------------------------|
| LOCATION & EQUIPMENT               | RECOMMENDED LUBRICANT     | VISCOSITY GRADE | NGLI GRADE | BASE OIL VISCOSITY | PRODUCT NUMBER            |
| API/ANSI Process Pumps             | Synfilm®                  | 46 / 68 / 100   |            |                    | 301267 / 301474 / 301974  |
|                                    | Synfilm® GT               | 46 / 68 / 100   |            |                    | 301987 / 301013 / 301981  |
| General Purpose                    | Paper Mill Grease         |                 | 1.5        | 244                | 301965                    |
| General Purpose                    | Endurosyn®                |                 | 2          | 150                | 301467                    |
|                                    | Ultra Performance® Grease |                 | 2          | 150                | 301961                    |
| Fans                               | Ultra Performance® Grease |                 | 2          | 150                | 301961                    |
|                                    | Synfilm® GT               | Various         |            |                    | Contact Technical Service |
| Blowers                            | Synfilm® GT               | 150 / 220       |            |                    | 301982 / 301477           |
| Electric Motors (Greased Bearings) | Endurosyn®                |                 | 2          | 150                | 301467                    |
|                                    | Ultra Performance Grease  |                 | 2          | 150                | 301961                    |
| Electric Motors (Oil Lubricated)   | Synfilm®                  | 32 / 46         |            |                    | 301473 / 301267           |
|                                    | Synfilm® GT               | 32 / 46         |            |                    | 301985 / 301987           |
| Low RPM/Heavily Loaded Bearings    | Thermax™ 680              |                 | 2          | 680                | 301465                    |
| Calender Roll Bearings             | Paper Mill Grease         |                 | 1.5        | 244                | 301965                    |
| NSF® H1 Food Grade Use             | Poly-Guard® FDA           | 32 / 46         |            |                    | 300912 / 300912           |

| CHAIN & OPEN GEAR LUBRICATION |                       |                 |                           |  |
|-------------------------------|-----------------------|-----------------|---------------------------|--|
| LOCATION & EQUIPMENT          | RECOMMENDED LUBRICANT | VISCOSITY GRADE | PRODUCT NUMBER            |  |
| Chains                        | MaxChain®             | Various         | Contact Technical Service |  |
| Open Gears                    | Thermyl-Tuff®         | Various         | Contact Technical Service |  |

| COUPLING LUBRICATION |                       |            |                    |                |  |
|----------------------|-----------------------|------------|--------------------|----------------|--|
| LOCATION & EQUIPMENT | RECOMMENDED LUBRICANT | NGLI GRADE | BASE OIL VISCOSITY | PRODUCT NUMBER |  |
| Drive Couplings      | Coupling Grease™      | 1          | 2995               | 301962         |  |



#### COMPRESSOR & VACUUM PUMP LUBRICATION

| LOCATION & EQUIPMENT            | RECOMMENDED LUBRICANT | VISCOSITY GRADE | PRODUCT NUMBER            |
|---------------------------------|-----------------------|-----------------|---------------------------|
| Vacuum Pumps                    | Synfilm® GT           | 150 / 220       | 301982 / 301477           |
| Rotary Screw Compressors        | Synfilm®              | 46 / 68         | 301267 / 301474           |
| Reciprocating Compressors (Air) | Synfilm® Recip        | 100 / 150       | 301996 / 301997           |
| Centrifugal Compressors         | Synfilm®              | 46 / 68 / 100   | 301267 / 301474 / 301974  |
|                                 | Synfilm® GT           | 46 / 68 / 100   | 301987 / 301013 / 301981  |
| NFS® H1 Food Grade Use          | Poly-Guard® FDA       | Various         | Contact Technical Service |

| GEAR LUBRICATION                             |                          |                 |                          |  |  |
|--|--------------------------|-----------------|--------------------------|--|--|
| LOCATION & EQUIPMENT                         | RECOMMENDED LUBRICANT    | VISCOSITY GRADE | PRODUCT NUMBER           |  |  |
| Gearboxes - Spur, Helical, Herringbone Gears | Synergy®                 | 150 / 220 / 320 | 301488 / 302001 / 302002 |  |  |
|  | Thermyl-Glyde®           | 220 / 320       | 301017 / 301499          |  |  |
| Worm Gearboxes                               | Synergy® Worm Gear       | 680             | 301492                   |  |  |
|  | Synfilm® GT              | 460 / 680       | 301270 / 301989          |  |  |
|  | Thermyl-Glyde® Worm Gear | 460 / 680       | 301502 / 301018          |  |  |
| Environmentally Acceptable Lube Areas/Gears  | BioMax™ EAL Gear Oil     | 150 / 220 / 320 | 301865 / 301307 / 300959 |  |  |
| Cooling Tower Gearboxes                      | Synfilm® GT              | 220 / 320       | 301477 / 301478          |  |  |
| NSF® H1 Food Grade Use                       | Poly-Guard® FDA          | 150 / 220 / 320 | 301250 / 301511 / 301941 |  |  |

# BARRIER FLUIDS MECHANICAL SEALS LUBRICATION LOCATION & EQUIPMENT Dual Mechanical Seal, Nitrogen Purge & Sealed System Dual Mechanical Seal, No Nitrogen Purge & Open System Dual Mechanical Seal, No Nitrogen Purge & Open System Barrier Fluid\* FDA Various Contact Technical Service Various

| ROLLING STOCK LUBRICATION       |                                    |                 |            |                    |                           |
|---------------------------------|------------------------------------|-----------------|------------|--------------------|---------------------------|
| LOCATION & EQUIPMENT            | RECOMMENDED LUBRICANT              | VISCOSITY GRADE | NGLI GRADE | BASE OIL VISCOSITY | PRODUCT NUMBER            |
| Wood Yard Dozers/Excavators     | High Performance HD/Duralec® Super | SAE 15W-40      |            |                    | 301902 / 300905           |
| Fleet Vehicles                  | High Performance HD/Duralec® Super | SAE 15W-40      |            |                    | 301902 / 300905           |
| Fork Lifts/Loaders/Skid Steers  | High Performance HD/Duralec® Super | SAE 15W-40      |            |                    | 301902 / 300905           |
| Rolling Stock Hydraulic Systems | Syndraulic®                        | Various         |            |                    | Contact Technical Service |
| Greased Bearing Applications    | Endurosyn®                         |                 | 2          | 150                | 301467                    |
|                                 | Illtra Performance® Grease         |                 | 2          | 150                | 301961                    |

| SPECIALTY & GENERAL MAINTENANCE LUBRICATION |                         |                 |                        |  |  |  |
|---|-------------------------|-----------------|------------------------|--|--|--|
| LOCATION & EQUIPMENT                        | RECOMMENDED LUBRICANT   | VISCOSITY GRADE | PRODUCT NUMBER         |  |  |  |
| Equipment Rebuild & Pump Shop               | Max-Tuff® Assembly Lube | N/A             | 301451                 |  |  |  |
| General Purpose Lubricant/Penetrating Oil   | Maxfilm®                | N/A             | 301434 / 500262 (Aero) |  |  |  |
| Pumps, Blowers, Gear Boxes in Storage       | VP™ Preservative Oil 10 | N/A             | 301506                 |  |  |  |
| Air Tools & Air Line Lubricant              | Synfilm®                | 32              | 301473                 |  |  |  |