



# PRODUCT DATA SHEET



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## RAYLENE® EXTREME PRESSURE OIL

**Raylene Extreme Pressure Oil** is a significant advancement over existing high performance gear oil technology. **Raylene Extreme Pressure Oil** provides the highest Extreme Pressure and anti-wear capabilities to maximize machine component protection, and is compounded with friction modifiers to control micropitting, the root cause of a majority of gear failures. **Raylene Extreme Pressure Oil** contains no hazardous chemicals such as chlorine, lead, zinc or antimony, making it safer to handle and easier to dispose of after use. Additionally, it has excellent oxidation stability, anti-foam characteristics, anti-rust and anti-corrosion properties.

### *Applications*

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- ◆ All industrial enclosed gear cases where Extreme Pressure gear oil is recommended. Typical applications include bevel, spur, helical (double helical and herringbone) and planetary gears
- ◆ Any application specifying the use of an AGMA 9005-E02, US Steel 224, ISO CKC or CKD and DIN CLP gear oil
- ◆ Mining equipment gear cases including draglines, shovels, drills and process equipment
- ◆ May be used for plain and roller bearings
- ◆ Other applications include ways, slides, guides, chain sprockets, cams and flexible couplings

### *Features and Benefits*

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|--------------------------------------|---|
| ◆ Extreme Pressure and anti-wear     | Provides maximum protection of machine components extending their service life.                             |
| ◆ Free of hazardous chemicals        | Safer to use. Easy disposal.  |
| ◆ Broad spectrum of viscosity grades | Available in 8 viscosity grades to meet all OEM requirements and equipment and ambient climatic conditions. |
| ◆ USDA H2 rated                      | Acceptable in food plants where there is no possibility of food contact.                                    |

### *General Description*

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**Raylene Extreme Pressure Oil** is a high performance, mineral oil-based lubricant for enclosed gears. The product is compounded with a proprietary chemical system that includes Extreme Pressure, anti-wear, micropitting protection, rust, corrosion and oxidation protection. With a 100 pound Timken OK Load and a 12+ Stage FZG rating, the EP capabilities of the oil are unsurpassed.

**Product No. 301333, 301758, 301759, 301089, 300901, 301760, 301334, 302111**

# RAYLENE® EXTREME PRESSURE OIL

## TYPICAL PROPERTIES

<b><u>Product No.</u></b>	<b><u>301333</u></b>	<b><u>301758</u></b>	<b><u>301759</u></b>	<b><u>301089</u></b>
<b><u>Old Product No.</u></b>	<b><u>71600</u></b>	<b><u>71610</u></b>	<b><u>71620</u></b>	<b><u>71630</u></b>
ISO Viscosity Grade	100	150	220	320
Viscosity, ASTM D445				
@ 40°C, cSt	102	156	231	325
@ 100°C, cSt	11.4	15.0	19.5	24.6
Viscosity, ASTM D2161				
@ 100°F, SUS	532	820	1223	1730
@ 210°F, SUS	65.4	79.7	99.0	122
Viscosity Index, ASTM D2270	98	96	96	97
Pour Point, ASTM D97				
°C	-24	-12	-12	-12
(°F)	(-11)	(10)	(10)	(10)
Copper Strip Corrosion, ASTM D130				
3 hrs @ 100°C, rating	1b	1b	1b	1b
Rust Test, ASTM D665, Procedure A & B	Pass	Pass	Pass	Pass
Foam Test, ASTM D892				
Sequence I, ml/ml	nil foam	nil foam	nil foam	nil foam
Sequence II, ml/ml	nil foam	nil foam	nil foam	nil foam
Sequence III, ml/ml	nil foam	nil foam	nil foam	nil foam
4-Ball Wear Test, ASTM D4172				
@ 1200 rpm, 40 kg, 1 hr, 75°C				
Scar Diameter, mm	0.35	0.37	0.39	0.37
Timken EP Test, ASTM D2782				
OK Load, kg (lb)	45.5 (100)	45.5 (100)	45.5 (100)	45.5 (100)
FZG Visual Test, ASTM D5182				
Failure Load Stage	>12	>12	>12	>12
Color	Yellow	Amber	Amber	Amber

# RAYLENE® EXTREME PRESSURE OIL

## TYPICAL PROPERTIES

<b><u>Product No.</u></b>	<b><u>300901</u></b>	<b><u>301760</u></b>	<b><u>301334</u></b>	<b><u>302111</u></b>
<b><u>Old Product No.</u></b>	<b><u>71640</u></b>	<b><u>71650</u></b>	<b><u>71660</u></b>	<b><u>71670</u></b>
ISO Viscosity Grade	460	680	1000	1500
Viscosity, ASTM D445				
@ 40°C, cSt	450	671	989	1433
@ 100°C, cSt	29.4	36.1	45.8	64.8
Viscosity, ASTM D2161				
@ 100°F, SUS	2415	3641	5409	7829
@ 210°F, SUS	145	176	233	315
Viscosity Index, ASTM D2270	93	87	87	89
Pour Point, ASTM D97				
°C	-12	-12	-9	-9
(°F)	(10)	(10)	(15)	(15)
Copper Strip Corrosion, ASTM D130				
3 hrs @ 100°C, rating	1b	1b	1b	1b
Rust Test, ASTM D665, Procedure A & B	Pass	Pass	Pass	Pass
Foam Test, ASTM D892				
Sequence I, ml/ml	nil foam	nil foam	nil foam	nil foam
Sequence II, ml/ml	nil foam	nil foam	nil foam	nil foam
Sequence III, ml/ml	nil foam	nil foam	nil foam	nil foam
4-Ball Wear Test, ASTM D4172				
@ 1200 rpm, 40 kg, 1 hr, 75°C				
Scar Diameter, mm	0.32	0.37	0.38	0.38
Timken EP Test, ASTM D2782				
OK Load, kg (lb)	45.5 (100)	45.5 (100)	45.5 (100)	45.5 (100)
FZG Visual Test, ASTM D5182				
Failure Load Stage	>12	>12	>12	>12
Color	Brown	Brown	Brown	Brown