



PRODUCT DATA SHEET



RAYLENE® ASHLESS MULTI-VISCOSITY HYDRAULIC OIL

Raylene Ashless Multi-Viscosity Hydraulic Oil is a high performance, zinc-free hydraulic oil. The product's high Viscosity Index promotes excellent low temperature fluidity as well as high temperature viscosity stability. The exceptional anti-wear property of **Raylene Ashless Multi-Viscosity Hydraulic Oil** reduces component wear, and its ashless formula eliminates metallic additive deposits for clean and trouble-free operation. The excellent demulsibility characteristic of **Raylene Ashless Multi-Viscosity Hydraulic Oil** promotes rapid and complete water separation for easy drainage. **Raylene Ashless Multi-Viscosity Hydraulic Oil** meets the requirements of most major OEMs for zinc-free hydraulic oils as well as Denison HF-0, DIN 51524 Part 3 (HVLV) and ISO 6743-4 (L-HV) specifications.

Applications

- ◆ Recommended for applications where DIN 51524 Part 3 (HVLV) and ISO 6743-4 (L-HV) ISO VG 22 and VG 46 oils are required
- ◆ Recommended for hydraulic systems with vane, piston or gear type pumps
- ◆ Recommended for circulating systems

Features and Benefits

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| ◆ Ashless | No metallic residues or deposits. Clean operating. Promotes efficient component operation. |
| ◆ Oxidation stability | Significantly extends oil service life and protects tight machine clearances from deposits or varnish. |
| ◆ Superior anti-wear protection | Reduces hydraulic pump and system component wear for extended component life and reduced costs. Suitable for use in circulation systems. |
| ◆ Excellent demulsibility | Rapid water separation for easy drainage from the hydraulic tank promoting consistent system pressure. |
| ◆ High viscosity shear stability | Maintains viscosity providing maximum component protection and extended drain intervals. |
| ◆ Red or green in color | Easy leak detection. |

General Description

Raylene Ashless Multi-Viscosity Hydraulic Oil is formulated from highly refined petroleum, high Viscosity Index base oils, incorporating anti-wear additives, corrosion and oxidation inhibitors, viscosity modifiers and foam suppressants.

Product No. 300937, 300938

RAYLENE[®] ASHLESS MULTI-VISCOSITY HYDRAULIC OIL
TYPICAL PROPERTIES

<u>Product No.</u>	<u>300937</u>	<u>300938</u>
<u>Old Product No.</u>	<u>71200</u>	<u>71750</u>
ISO Viscosity Grade	22	46
Viscosity, ASTM D445		
@ 40°C, cSt	21.8	44.6
@ 100°C, cSt	5.17	7.77
Viscosity, ASTM D2161		
@ 100°F, SUS	113	228
@ 210°F, SUS	43.0	52.2
Viscosity Index, ASTM D2270	180	144
Pour Point, ASTM D97		
°C	-63	-45
(°F)	(-81)	(-49)
Copper Strip Corrosion, ASTM D130		
3 hrs @ 100°C, rating	1a	1a
Rust Test, ASTM D665, Procedure A	Pass	Pass
Procedure B	Pass	Pass
Demulsibility, ASTM D1401		
Oil/water/emulsion (time), ml/ml/ml (min)	40/40/0 (15)	40/40/0 (15)
Foam Test, ASTM D892, Sequence I, II, III	Nil	Nil
Oxidation Lifetime, ASTM D943, hrs	2688	2688
Total Acid Number, ASTM D974, mg KOH/g	0.72	0.72
Falex EP Test, ASTM D3233 Method B		
Non-seizure Load, lbf	3000	2500

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Denison Pump Test, T6H20C Mass Loss, mg	6.7	6.7
Vickers 35VQ25 Vane Pump Test, ASTM D6973 Mass Loss, mg	24	24
FZG Visual Test, ASTM D5182 Failure Load Stage	12	12
Filterability, Denison TP-02100-A A – Filtration Test Without Water, second	123	123
B – Filtration Test With 2% Water, second	184	184
Shear Stability Test (KRL), CEC L-45-T 20 h, Viscosity Loss, %	11.9	11.9
Specific Gravity, ASTM D1298, 60/60°F	0.850	0.865
Appearance	Clear liquid	Clear liquid
Color	Red	Green