



LUBRICANTS

A HOLLYFRONTIER BUSINESS

# **TECH DATA**

## **PETRO-CANADA**

### **AW ASHLESS (AL)**

#### **HYDRAULIC OILS**

## **INTRODUCTION**

Petro-Canada AW AL are high performance hydraulic oils that are free of zinc and heavy metals (ashless). They are manufactured with refined base oils and high performance ashless additives engineered to deliver antiwear, antioxidant, antifoam, antirust and anticorrosion performance. Petro-Canada AW AL oils deliver good anti-wear protection and oxidation stability and are suitable for use in mobile and industrial hydraulic equipment, and hydraulic systems that use gear pumps, vane pumps and piston pumps.

### **FEATURES AND BENEFITS**

- Great anti-wear and anti-rust protection to reduce wear of hydraulic equipment and extend life of gear, vane and piston pumps.
- Easy filterability to reduce downtime for maintenance.
- Good hydrolytic stability to protect and extend life of nonferrous metal components.
- Rapid air release to prevent destructive cavitation and aeration.
- Good oxidation stability to resist against oxidation breakdown and extend drain intervals.

### **SPECIFICATIONS AND REQUIREMENTS**

Petro-Canada AW AL hydraulic oils are suitable for use where the following specifications are required:

- DIN 51524 Part 2
- ISO 6743/4 HM
- ISO 11158 HM
- China GB 11118.1 (HM)
- ASTM D6158 (HM)
- Eaton Corporation I-286-S
- Eaton Corporation M-2950-S
- SAE MS 1004 HM
- Former Fives P69 (ISO 68), P70 (ISO 46)

## TYPICAL PERFORMANCE DATA

Property	Test Method	PETRO-CANADA AW AL	
		46	68
Density, kg/L, 15°C kg/L at 20°C	ASTM D4052	0.8622 0.8590	0.8681 0.8650
Flash Point, COC, °C	ASTM D92	223	233
Kinematic Viscosity, cSt @ 40°C cSt @ 100°C	ASTM D445	45.1 6.9	66.5 8.7
Viscosity Index	ASTM D2270	108	104
Pour Point, °C	ASTM D5950	-42	-36
Copper Corrosion, 3h @ 121°C	ASTM D130	1a	1a
Rust Procedures A & B, 24 hr	ASTM D665	Pass	Pass
Four-Ball Wear Test, Scar Diam. (mm) 40 kg, 1200 rpm, 75°C, 1hr	ASTM D4172B	0.6	0.6
Water Separability, 54°C Oil-water-emulsion (minutes)	ASTM D1401	40-37-3 (10)	40-37-3 (10)

The values quoted above are typical of normal production. They do not constitute a specification.

Learn more about us: [lubricants.petro-canada.com](https://lubricants.petro-canada.com)  
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Committed to the disciplined operation of our business.



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