



A HOLLYFRONTIER BRAND

# TECH DATA

## HYDREX™ MV ARCTIC 15

### HYDRAULIC FLUID

## INTRODUCTION

Petro-Canada Lubricants HYDREX MV Arctic 15 is a premium quality, high performance hydraulic fluid designed for extremely cold temperature operations or applications where a low viscosity fluid is preferred.

HYDREX MV Arctic 15 starts with the HT purity process to produce a 99.9% pure, crystal clear base oil. By removing the impurities that can hinder the performance of competitive conventional oils, and blending in our specialty additives, HYDREX MV Arctic 15 delivers maximum performance.

## FEATURES AND BENEFITS

### Developed for arctic conditions

- Allows hydraulic systems to start at temperatures < -50°C/-58°F under no-load conditions
- Excellent low temperature flow characteristics result in easy start-ups and faster hydraulic system pressurization

### Exceptional anti-wear protection

- Extends equipment life for reduced maintenance and downtime

### Outstanding oxidation and thermal stability

- Prevents sludge build up and varnish deposits to ensure smooth, reliable operation of hydraulic valves and actuators
- Helps extend the time between oil changes

### Excellent water separability and hydrolytic stability

- Reusable after water is removed because HYDREX MV Arctic 15 separates readily without loss of performance additives

### Great foam and air release performance

- Prevents overflowing of reservoirs
- Eliminates “sponginess” from hydraulic systems and prevents pump cavitation

### Improved rust and corrosion protection

- Iron and other metal components are protected against water damage

### Readily biodegradable as measured by OECD 301B

## APPLICATIONS

Petro-Canada Lubricants HYDREX MV Arctic 15 is recommended for vane, gear and axial piston hydraulic pumps for applications requiring ISO viscosity grades 10 and 15. HYDREX MV Arctic 15 is also recommended for use in emergency shutdown valves or other critical low temperature heavy-duty hydraulic systems that are required to respond quickly and reliably, including extremely low temperatures down to -45°C/-49°F.

HYDREX MV Arctic 15 has been shown to be compatible with other zinc-based, petroleum hydraulic fluids and polyalphaolefin (PAO) synthetic fluids. However, to obtain maximum performance and service life benefits, systems should be thoroughly drained and flushed prior to filling with HYDREX MV Arctic 15. Please refer to TB-1284 for changeout procedure instructions. It is also compatible with typical seal materials and will not attack valve seals.

HYDREX MV Arctic 15 is suitable for use in equipment manufactured by:

- Eaton Vickers
- Denison
- Sauer-Danfoss
- Bosch-Rexroth
- Racine
- Oilgear
- Hydreco
- Dynex
- Others

HYDREX MV Arctic 15 is NSF H2 listed (no allowable food contact).

## TYPICAL PERFORMANCE DATA

Property	Test Method	HYDREX MV ARCTIC 15
Start-up Temperature <sup>1</sup> , °C / °F	–	< -50 / -58
Operating Temperature Range <sup>1</sup> , °C / °F Mobile Equipment Industrial Machinery	–	-45 to 45 / -49 to 113 -45 to 32 / -49 to 90
Kinematic Viscosity, cSt @ 40°C / SUS @ 100°F cSt @ 100°C / SUS @ 210°F	D445	13.6 / 74 5.2 / 43
Brookfield Viscosity, cP @ -45°C / -49°F	D2983	660
Viscosity Index	D2270	391
Flash Point, COC, °C / °F	D92	132 / 270
Pour Point, °C / °F	D5950	-57 / -71
Oxidation Stability, hours to 2.0 AN	D943	5,000+
Rust, Procedures A & B, 24 hr	D665	Pass
Dielectric Breakdown, kV	D877	45
Four-Ball Wear Test, Scar Diam. (mm) 40 kg, 1200 rpm, 75°C, 1 hr	D4172B	0.65
Water Separability, 54°C / 129°F oil-water-emulsion (minutes)	D1401	40-40-0 (10)

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

<sup>1</sup>Operators should always refer to their equipment manufacturer's recommendations regarding the operating temperature ranges and fluid viscosity requirements. Petro-Canada Lubricants' recommendations are approximate and based on the below:

- Startup temperature is defined as the temperature at which the fluid dynamic viscosity is 10,000 cP.
- The lower limit of operating temperature range for both mobile and industrial machinery is defined as the temperature at which the fresh fluid dynamic viscosity is 750 cP.
- The upper limit of operating temperature range is defined as the temperature at which the after shear kinematic viscosity of the fluid is 10 cSt for mobile equipment and 13 cSt for industrial equipment.

Please refer to TB-1290 for more information on lubricant & hydraulic fluid shear stability. Mobile equipment typically refers to machinery that encompasses a transmission and braking system to allow and prohibit movement. Industrial machinery is typically stationary, with hard piping and auxiliary components in place.

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Committed to the disciplined operation of our business.



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