

# Petro-Canada TechData



## PURITY™ FG AW HYDRAULIC FLUIDS

### Introduction

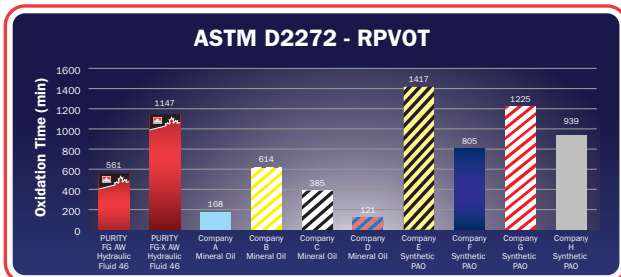
Petro-Canada's PURITY™ FG AW Hydraulic Fluids are advanced food grade lubricants formulated to deliver long lasting protection.

PURITY FG-X AW Hydraulic Fluid 46 is formulated with SynFX™, an advanced additive technology designed to deliver synthetic-like performance and enhanced protection. **SynFX**

PURITY FG's performance results from more than 30 years formulating experience. Using the HT purity process, Petro-Canada produces a 99.9%, crystal clear base oil – among the purest in the world. Virtually free of impurities that can hinder performance and fortified with specially selected performance additives, PURITY FG AW Hydraulic Fluids have excellent resistance to oxidative breakdown. Tough enough to handle wet food processing environments and wide temperature swings, PURITY FG AW Hydraulic Fluids can help extend equipment life and reduce operational downtime.

### Features and Benefits

- **Resists oxidative breakdown**
  - Outstanding resistance to oxidative breakdown even at high temperatures and in the presence of water
  - Helps keep systems free of sludge and varnish to ensure smooth and reliable operation of hydraulic valves and actuators
  - Excellent resistance to oxidative breakdown can result in longer fluid life and help reduce downtime in tough operating environments



- **Excellent anti-wear protection**
  - Protects metal pump parts from scuffing and scoring

- Protects equipment operating at high production rates for extended periods in tough conditions
- Helps to extend equipment life
- Improves operating reliability over a wide range of pump output pressures
- PURITY FG AW Hydraulic Fluid 46 passes Vickers 35VQ25A test
- **Long-term protection from rust and corrosion**
  - Prevents pump, actuator and circulating system damage in moist or wet operations
- **Excellent resistance to contamination**
  - Rapidly separates from water
  - Maintains consistency and fluid performance
- **Highly resistant to foaming and air entrapment**
  - Eliminates "sponginess" from hydraulic systems and damage caused by pump cavitation

### Food Grade Registrations

- **Fully registered for use in and around food processing areas**
  - H1 registered by NSF
  - All fluid components comply with U.S. FDA 21 CFR 178.3570 Lubricants with incidental food contact
  - Certified by Star K for use in equipment for the preparation of Kosher food
  - Certified Halal
  - Easily integrated into HACCP (Hazard Analysis and Critical Control Point) plans and GMP (Good Manufacturing Practice) programs

#### What is the HT difference?

Petro-Canada starts with the HT purity process to produce water-white, 99.9% pure base oils. The result is a range of lubricants, specialty fluids and greases that deliver maximum performance for our customers.



Nonfood Compounds  
Program Listed H1  
ISO 21469 Certified



## Applications

PURITY FG AW Hydraulic Fluids provide excellent performance in high pressure systems. They are also designed to be used to lubricate anti-friction bearings found in various pump designs and general circulating systems.

PURITY FG AW Hydraulic Fluids can also be used in air line lubricators in pneumatic systems commonly found in food packaging applications. PURITY FG AW Hydraulic Fluids are ideal because they deliver clean, non-varnishing performance even in extended service, and are essentially odourless in the exhaust air.

## Typical Performance Data

PROPERTY	TEST METHOD	PURITY™ FG AW HYDRAULIC FLUIDS				
		32	46	FG-X AW 46 SynFX	68	100
ISO Grade	-	32	46	46	68	100
Viscosity, cSt @ 40°C / (SUS @ 100°F) cSt @100°C / (SUS @ 210°F)	D445	29.8 / 154 5.2 / 44	45.4 / 234 6.8 / 49	46.7 / 241 6.9 / 49	63.3 / 328 8.4 / 55	101.5 / 529 11.5 / 66
Viscosity Index	D2270	101	102	102	102	99
Flash Point, COC, °C/°F	D92	225/437	245/473	240 / 464	253/487	267/513
Pour Point, °C/°F	D5950	-18/0	-18/0	-48 / -54	-18/0	-15/5
Colour	D1500	0.5	0.5	<0.5	<0.5	<0.5
Water Separability, 54°C (129°F), mL (min.) 82°C (180°F), mL (min.)	D1401	40-40-0 (15) -	40-40-0 (15) -	40-40-0 (10) -	40-40-0 (15) -	- 40-40-0 (15)
Rust Protection, A - Distilled Water B - Synthetic Sea Water	D665 D665	Pass Pass	Pass Pass	Pass Pass	Pass Pass	Pass Pass
Foaming Resistance, Sequence I	D892	0 / 0	0 / 0	50 / 0	0 / 0	0 / 0
Wear Protection: Four Ball Wear, scar diam., mm 35VQ25A Vickers Test	D4172	0.46 -	0.48 Pass	0.42 -	0.49 -	0.44 -
Scuffing Load Capacity: FZG, Failure Load Stage	D5182 A/8.3/90	>12	>12	>12	>12	>12
Oxidation Resistance: RPVOT, in minutes	ASTM D2272	844	885	1147	886	888

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

**Shelf Life:** Product shelf life is 3 years from the date of manufacture when stored in sealed containers under protected storage conditions\*.

\* Protected storage conditions includes indoor or covered storage, protected from contamination including exposure to rain and snow, exposure to direct sunlight, exposure to extreme temperatures and high / low temperatures cycles.

## Health and Safety

To obtain Safety Data Sheets (SDS), contact one of our TechData Info Lines.



## TechData Info Lines

If you are an **existing customer** looking to place an order, please call a Customer Order Management Representative at:

**Canada (English)** ..... Phone 1-800-268-5850  
**(French)**..... Phone 1-800-576-1686  
**United States** ..... Phone 1-877-730-2369  
**Latin America/Europe/Asia** ..... Phone +1-866-957-4444

If you would like to become a Petro-Canada lubricants customer and require more information about specialty fluids, oils and greases that can help maximize your equipment performance, savings and productivity, please contact us at:

**North America** ..... Phone 1-866-335-3369  
**Europe** ..... Phone +44 (0) 121-781-7264  
**Germany** ..... Phone 0800-589-4751  
**China** ..... Phone +86 (21) 6362-0066

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Visit us on the web at [lubricants.petro-canada.com](http://lubricants.petro-canada.com)