



## PURITY™ FG COMPRESSOR FLUIDS

### Introduction

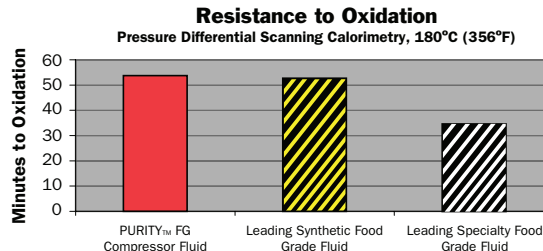
Petro-Canada's PURITY™ FG Compressor Fluids are advanced food grade lubricants formulated to deliver superior performance and longer service life than leading specialty food grade lubricants.

PURITY™ FG's superiority results from more than 20 years formulating experience. Using the patented HT purity process, Petro-Canada produces a 99.9% pure, crystal clear base oil - the purest in the world. Free of impurities that can hinder performance and fortified with specially selected performance additives, PURITY™ FG Compressor Fluids have better resistance to thermal and oxidative breakdown than leading specialty food grade fluids. Tough enough to handle wet food processing environments with wide temperature swings, PURITY™ FG Compressor Fluids extend compressor life and reduce operational downtime.

PURITY™ FG Compressor Fluids also meet the highest food industry purity standards and fit perfectly in HACCP (Hazard Analysis and Critical Control Point) and GMP (Good Manufacturing Practice) plans. All fluid components comply with FDA regulation 21 CFR 178.3570 "Lubricants with incidental food contact". All fluids are H1 registered by NSF and meet the requirements of the U.S. Department of Agriculture (USDA) as H1 lubricants for use in federally inspected meat and poultry plants where incidental food contact may occur. They are approved by the Canadian Food Inspection Agency for use in registered food processing plants and they are certified by Star K for use in the preparation of kosher food.

### Features and Benefits

- **Resists oxidative breakdown better than leading specialty food grade compressor fluids**
  - Extended fluid life - up to 4,000 hours in rotary screw compressors
  - Keeps pneumatics free of sludge and varnish
  - Reduces power consumption by up to 3% by staying in grade
  - Reduces operating costs by extending periods between fluid change-outs



- **Superior separation from water contamination**
  - Improves efficiency of condensate recovery
- **Better thermal and oxidative stability than leading specialty food grade compressor fluids**
  - Minimizes formation of harmful varnish and lacquer deposits on rotors and separators of rotary compressors, and carbon deposits on valve assemblies of reciprocating units
  - Parts stay cleaner longer, reducing maintenance costs

#### What is the HT difference?

Petro-Canada starts with the patented 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.



## Deposit Formation Panel Coker Test, 260°C (500°F)



**PURITY™ FG Compressor Fluid    Synthetic Food Grade Fluid    Leading Specialty Food Grade Fluid**

- **Ashless and odourless**
  - Clean performance
  - Provides a more pleasant work environment
  - Easy disposal because used fluids are a non hazardous waste
- **Low volatility**
  - Minimizes top-up
  - Improves efficiency in vacuum pump applications
- **Fully approved for use in and around food processing areas**
  - H1 registered by NSF

- All fluids meet the requirements of the U.S. Department of Agriculture (USDA) as H1 lubricants for use in federally inspected meat and poultry plants where incidental food contact may occur
- All fluid components comply with FDA 21 CFR 178.3570 “Lubricants with incidental food contact”
- Approved by the Canadian Food Inspection Agency for use in registered food processing plants
- Certified by Star K for use in the preparation of kosher food
- Certified Halal by IFANCA



**H1**

- **Free of genetically modified substances (GMS)**
- **Maintains food allergy safety**
  - Free of gluten
  - Contains no peanuts, tree nuts, or their derivatives
  - Manufactured in a facility that does not manufacture, store, or otherwise handle any peanut or tree nut product

## Applications

PURITY™ FG Compressor Fluids may be safely used to lubricate air compressors and vacuum pumps used for producing, manufacturing, preparing, treating or packaging food.

Our recommendations for fluid change-out intervals are:

GRADE	COMPRESSOR	DISCHARGE <85°C (185°F)	DISCHARGE >85°C (185°F)
PURITY* FG 32, 46	Rotary Screws	4000 hours	2000 hours <sup>1</sup>
PURITY* FG 100	Rotary Vanes	Per OEM guidelines	
PURITY* FG 68, 100	Reciprocating	Per OEM guidelines	

<sup>1</sup>Up to a maximum of 100°C (212°F) air discharge temperature.

**NOTE:** These recommendations are based on no contamination in the initial fill and generally clean air supply. Tests should be conducted to determine fluid life in environments with high levels of dirt and abrasive powders, corrosive atmospheres, chlorine, ammonia fumes, and strong acids such as sulphuric acid, pickle acids, nitric acid, or hydrochloric acid.

## Typical Performance Data

PROPERTY	TEST METHOD	PURITY™ FG COMPRESSOR FLUIDS			
		32	46	68	100
Density, kg/L @ 15°C	D4052	0.859	0.866	0.872	0.876
Viscosity, cSt @ 40°C (SUS @ 100°F)	D445	32 (165)	46 (237)	68 (352)	101 (469)
cSt @ 100°C (SUS @ 212°F)		5.6 (45)	7.1 (50)	9.0 (57)	98 (457)
Viscosity Index	D2270	110	108	104	98
Flash Point, °C (°F)	D92	211 (412)	230 (446)	245 (473)	254 (490)
Pour Point, °C (°F)	D97	-18 (0)	-15 (5)	-15 (5)	-12 (10)
Colour	D1500	0.5	0.5	0.5	0.5
TAN, mL KOH/g	D664	0.1	0.1	0.1	0.1
Water Separability, 54°C (129°F), mL (min.)	D1401	42-38-0 (15)	42-38-0 (15)	42-38-0 (15)	-
82°C (180°F), mL (min.)		-	-	-	42-38-0 (15)
Foaming Resistance, Sequence 1	D892	5/0	5/0	5/0	5/0
Carbon Formation, Ramsbottom Carbon, % mass	D524	0.01	0.01	0.01	0.01
Oxidation Stability, Time to oxidation, min	D2272	1000+	1000+	1000+	1000+

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

## Health and Safety

Petro-Canada PURITY™ FG compressor lubricants have no adverse effects on health, provided they are used as directed. To obtain Material Safety Data Sheets (MSDS), contact one of our Techdata Info Lines.

## TechData Info Lines

If you would like to know more about Petro-Canada Purity™ FG Compressor Lubricants, or any other product in our complete line of quality lubricants, please contact us at:

**Petro-Canada**  
Lubricants Head Office  
2310 Lakeshore Road West  
Mississauga, Ontario  
L5J 1K2



**Canada - West.** ..... Phone 1-800-661-1199  
**- East (English)** .... Phone 1-800-268-5850  
**(French)** ..... Phone 1-800-576-1686  
**Other Areas** ..... Phone (416) 730-2408  
**E-mail.** ..... lubecsr@petro-canada.ca  
**Internet** ..... lubricants.petro-canada.ca

**Petro-Canada Europe Lubricants**  
The Manor, Haseley Business Centre  
Warwick, Warwickshire  
CV35 7LS  
United Kingdom

Phone ..... +44 (0) 2476-247294  
Fax ..... +44 (0) 2476-247295

**Petro-Canada America Lubricants**  
980 North Michigan Avenue  
Suite 1400, #1431  
Chicago, Illinois  
USA 60611

Phone ..... 1-888-284-4572  
Fax ..... (708) 246-8994  
E-mail ..... email@petro-canadaamerica.com

