



PURITY™ FG EP GEAR FLUIDS WITH MICROL™†

Introduction

Petro-Canada's PURITY™ FG EP Gear Fluids are advanced food grade lubricants formulated to deliver effective and long lasting protection. PURITY™ FG's favourable properties result from more than 20 years of formulating experience. Using the patented HT purity process, Petro-Canada produces a 99.9% pure, crystal clear base oil – one of the purest in the world. Free of impurities that can hinder performance and fortified with specially selected performance additives, PURITY FG EP Gear Fluids provide outstanding resistance to oxidation, and good protection from wear and shock loading.

PURITY FG EP Gear Fluids with MICROL contain an antimicrobial preservative to protect the lubricant from deterioration, fouling and odour caused by microorganisms. This helps to maintain the lubricant in effective operating condition. MICROL is the first and only EPA registered antimicrobial preservative for lubricants with incidental food contact (EPA Reg. No. 82076-1).

PURITY FG EP Gear Fluids with MICROL have the required industry credentials and fit perfectly in HACCP (Hazard Analysis and Critical Control Point) and GMP (Good Manufacturing Practice) plans.

Features and Benefits

- **Excellent resistance to oxidative breakdown**
- **Protects against rust and corrosion**
 - Protects gears from moisture damage
 - Minimizes the formation of emulsions that cause rust
 - Protects bronze and copper components
- **Excellent wear and extreme pressure protection**
 - Works against seizure, scuffing and spalling under shock loading conditions
 - Minimizes gear and bearing wear
- **Resists foaming**
 - Reduces the risk of reservoir overflow
 - Works against gear damage caused by insufficient lubricant film due to aeration
- **Resists effects of water contamination**
 - Rapidly separates from water
- **Contains MICROL preservative to protect against lubricant degradation**
 - MICROL antimicrobial protection is now included in Petro-Canada's PURITY FG EP Gear Fluids to provide continuous antimicrobial product protection
 - MICROL antimicrobial protection is not a substitute for normal plant cleanliness. MICROL antimicrobial protection helps to protect PURITY FG fluids from microbes that can cause odour and product degradation

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.



† MICROL is an antimicrobial product protection agent



Food Industry Credentials and Environmental Registrations

- **PURITY FG EP Gear Fluids with MICROL are fully registered for use in and around food processing areas, as indicated below:**
 - PURITY FG EP Gear Fluids with MICROL are NSF H1 registered
 - MICROL antimicrobial preservative is registered with the U.S. EPA (No. 82076-1) for protection of the lubricant from microbial degradation
 - All fluid components comply with FDA 21 CFR 178.3570 “Lubricants with incidental food contact” and GRAS
 - MICROL and PURITY FG EP Gear Fluids with MICROL are registered with the Canadian Food Inspection Agency
- PURITY FG EP Gear Fluids with MICROL are permitted to be used in preparation of Kosher food
- **Maintains food allergy safety**
 - Free of gluten
 - Contains no peanuts, tree nuts, or their derivatives (Please see TechBulletin TB-1210)



Nonfood Compounds
Program Listed H1

Applications

PURITY FG EP Gear Fluids with MICROL are recommended for all enclosed gears (worm, helical, bevel and spur) operating under normal or heavy shock-loading conditions at moderate temperatures.

PURITY FG EP Gear Fluids with MICROL can also be used in bearings and chain drives.

Typical Performance Data

PROPERTY	PURITY FG EP GEAR FLUIDS WITH MICROL			
	TEST METHOD	EP100	EP150	EP220
ISO Grade	-	100	150	220
SAE Grade	-	85W	90	90
AGMA Grade	-	3	4	5
Viscosity, cSt @ 40°C (SUS @ 100°F)	D445	101.2 (527.8)	142.7 (748.8)	223.6 (1183.8)
cSt @100°C (SUS @ 210°F)	D445	11.4 (64.9)	14.3 (76.2)	18.9 (95.7)
Viscosity Index	D2270	99	97	94
Flash Point, °C (°F)	D92	271 (520)	219 (426)	211 (412)
Pour Point, °C (°F)	D97	-12 (10.4)	-15 (5)	-18 (-0.4)
Colour	D1500	<0.5	<0.5	<0.5
Water Separability, 82°C (180°F), ml (min.)	D1401	43-37-0 (15)	43-37-0 (15)	43-37-0 (15)
Rust Protection, A – Distilled Water B – Synthetic Sea Water	D665 D665	Pass Pass	Pass Pass	Pass Pass
Foaming Resistance, Sequence I	D892	10/0	10/0	0/0
Anti-wear Protection: Four Ball Wear, mm (40 kg, 1200 rpm, 1 hr., 75°C)	D4172	0.41	0.47	0.47
Extreme Pressure Protection: Four Ball Weld, kg (lb)	D2783	126	126	160

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

Health and Safety

To obtain Material Safety Data Sheet (MSDS), contact one of our TechData Info Lines.

TechData Info Lines

If you would like to know more about Petro-Canada PURITY FG EP Gear Fluids with MICROL, or any other product in our complete line of quality lubricants, please contact us at:

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