



## PURITY\* FG SYNTHETIC EP GEAR FLUID

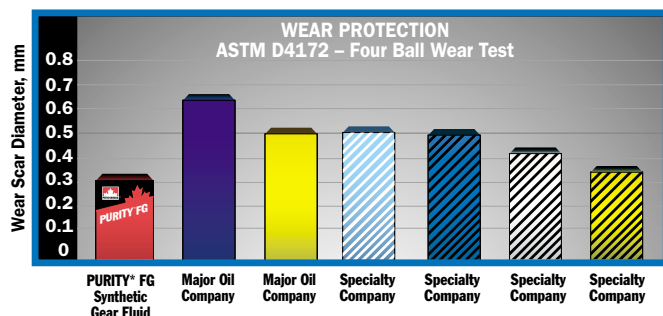
### Introduction

Petro-Canada's PURITY\* FG Synthetic EP Gear Fluid is an advanced food grade fluid specially formulated for gear systems operating in the toughest food processing applications. Its advanced chemistry provides longer fluid life and better protection against wear, over a wide range of operating temperatures.

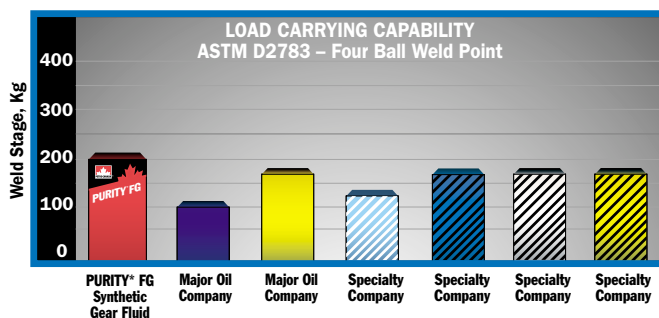
PURITY FG Synthetic EP Gear Fluid also meets the highest food industry safety standards and fits perfectly in HACCP (Hazard Analysis and Critical Control Point) and GMP (Good Manufacturing Practice) plans.

### Superior Performance Benefits

- **Higher load carrying capability and better protection against wear**
  - Excellent extreme pressure (EP) and anti-wear (AW) performance
  - Protects gears, bearings and equipment operating under heavy loads
  - Prevents seizure, scuffing and spalling

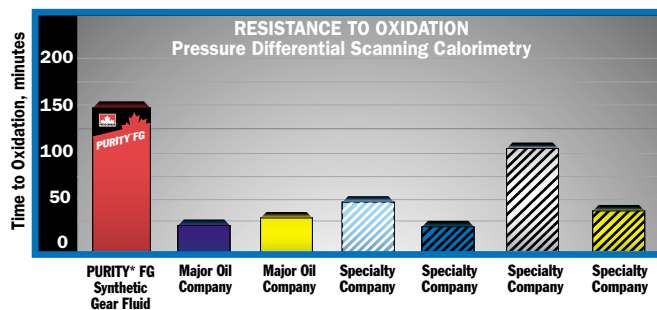


PURITY FG Synthetic EP Gear Fluid delivers stronger wear protection than leading major oil companies' and specialty lubricant suppliers' fluids. Less wear means fewer production upsets, higher productivity and lower maintenance costs.



PURITY FG Synthetic EP Gear Fluid also provides higher load carrying capability than the leading major oil companies' and specialty lubricant suppliers' gear fluids, so it's ideal for food processing applications running under heavier loads.

- **Strong resistance to lubricant breakdown in harsh operating environments**
  - Highly resistant to thermal and oxidative breakdown
  - Keeps gear boxes free of carbon, sludge and varnish
  - Results in longer fluid life and reduced downtime, even at high temperatures and in the presence of water or acidic contamination



PURITY FG Synthetic EP Gear Fluid's stronger resistance to oxidative breakdown helps to keep gear boxes free of sludge and varnish, and can extend fluid change-out intervals.

- **Effective across a wide range of temperature extremes**
  - Normal operating range from -35°C (-31°F) to 121°C (250°F)
  - Ideal for gear boxes, pumps and bearings operating under wide temperature swings

### More Performance Advantages

- **Long-term protection against rust and corrosion**
  - Prolongs component life and guards against unplanned downtime
- **Resistant to foaming**
  - Prevents reservoir overflow
  - Protects against gear damage caused by insufficient lubricant film formation

### Approved for Food Safety

- **Fully approved for use in and around food processing operations**
  - H1 registered by NSF
  - Complies with FDA 21 CFR 178.3570 “Lubricants with incidental food contact”
  - Certified Kosher and Pareve by Star K
  - Fits perfectly in HACCP (Hazard Analysis and Critical Control Point) and GMP (Good Manufacturing Practice) plans



- **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 products

### Applications

PURITY\* FG Synthetic EP Gear Fluid provides outstanding lubrication in all types of enclosed gear sets (worm, helical, bevel and spur). It is also recommended for lubricating plain or anti-friction bearings. It is especially effective in food processing applications running under heavier loads, or subject to high or low temperature extremes.

PURITY\* FG Synthetic EP Gear Fluid can also be used in bearings and chain drives, providing long service life and clean operation.

## Typical Performance Data

PROPERTY	TEST METHOD	RESULTS
ISO Grade	-	220
SAE Grade	-	90
AGMA Grade	-	3
Density, kg/L at 15°C	ASTM D1298	0.848
Colour	ASTM D1500	<0.5
Viscosity, cSt @ 40°C / SUS @ 100°F	ASTM D445	213 / 1000
cSt @ 100°C / SUS @ 210°F	ASTM D445	26 / 125
Viscosity Index	ASTM D2270	158
Flash Point, °C / °F	ASTM D92	271 / 520
Pour Point, °C / °F	ASTM D97	-40 / -40
Low Temperature Pumping Limit, °C / °F	ASTM D2983	-35 / -31
Water Separability at 82°C (180°F) mL, fluid-water-emulsion (minutes to separation)	ASTM D1401	40-38-2 (10)
Wear Protection and Load Carrying Capability: Timken, kg / lb	ASTM D2782	4.5 / 10
FZG, pass load stage	DIN 51354 (A/8.3/90)	12+
Four Ball Wear, scar diam (mm)	ASTM D4172	0.31
Four Ball Weld, kg / lb	ASTM D2783	200 / 441
Corrosion Protection: Copper Corrosion, 3h @ 121°C	ASTM D130	1B
Rust A - Distilled Water	ASTM D665	Pass
Rust B - Synthetic Sea Water	ASTM D665	Pass

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

## Health and Safety

Petro-Canada PURITY\* FG Synthetic EP Gear Fluid has no adverse affect on health provided it is used as directed. To obtain Material Safety Data Sheets (MSDS), contact one of our TechData Info Lines or visit our web site at [www.petro-canada.com](http://www.petro-canada.com).

## TechData Info Lines

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

**Petro-Canada  
Lubricants Centre  
385 Southdown Road  
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L5J 2Y3**



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**- East (English)** . . . . . Phone 1-800-268-5850  
**(French)** . . . . . Phone 1-800-576-1686  
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