

# Petro-Canada TechData



## PURITY™ FG WO WHITE MINERAL OILS

### Introduction

Petro-Canada's PURITY™ FG WO oils are ultra pure, food grade white mineral oils specially formulated for food processing, pharmaceutical and agricultural industries.

Using the patented HT purity process, Petro-Canada produces 99.9% pure, crystal clear white mineral oils – the purest in the world. Blended with a stabilizer for extended shelf life, PURITY FG WO oils are ideally suited for applications that require a straight, non-toxic white mineral oil.

PURITY FG WO oils meet the highest food industry purity standards and fit perfectly in HACCP (Hazard Analysis and Critical Control Point) and GMP (Good Manufacturing Practice) plans. They are H1 and 3H registered by NSF and n, n3, and u1 registered by the Canadian Food Inspection Agency.

### Features and Benefits

- **Low volatility**
  - Minimizes consumption
- **Includes an oxidation inhibitor for stability**
  - Extended shelf life
- **Odourless and tasteless**
- **Rapidly separates from water**
- **Excellent low pour characteristics**
  - Good fluidity at low temperatures
- **Water white in colour, does not stain**
- **Fully approved for use in and around food processing areas**
  - H1 registered by NSF as a lubricant with incidental food contact for use in and around food processing areas
  - 3H registered by NSF for use as a release agent on hard surfaces to prevent food from adhering during processing

- Registered n, n3, and u1 by the Canadian Food Inspection Agency (CFIA)
- Certified Kosher and Pareve by Star K
- Certified Halal by IFANCA
- Meets United States Food and Drug Administration (FDA) regulations:
  - CFR 21, Section 172.878 - White Mineral Oil
  - CFR 21, Section 178.3620 (a) - White Mineral Oil
  - CFR 21, Section 178.3570 - Lubricants with Incidental Food Contact
  - CFR 21, Section 176.170 - Components of paper and paperboard in contact with aqueous and fatty foods

- **PURITY FG WO 35, 68 and 90 meet mineral oils, USP (United States Pharmacopoeia standards)**
- **PURITY FG WO 15 meets Light Mineral Oil, NF (National Formulary)**
- **PURITY FG WO 15 is approved by the United States Department of Agriculture (USDA) for use as a protecting oil on Shell Eggs processed in plants operating under the USDA voluntary shell egg grading program**



Nonfood Compounds  
Program Listed 3H, H1

- **Maintains food allergy safety**
  - Free of gluten
  - Contain no peanuts, tree nuts, or their derivatives
  - Manufactured in a facility that does not manufacture, store, or otherwise handle any peanuts or tree nut product

#### 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.



## Applications

PURITY FG WO oils may be safely used where an approved food grade or inert white mineral oil is required. General applications include direct and indirect food contact in producing, manufacturing, packing, processing, preparing, treating or packaging food. PURITY FG WO oils may also be used in cosmetics, pharmaceutical plastics and chemical processing and textile production.

Specific applications include:

- Rust and corrosion prevention for knives and cutting tables used in food preparation

- Coatings for fruits and vegetables
- Carrier and release agent for pharmaceutical capsules
- Release agents for molds and bakery pans
- Plasticizers
- Moisture resistant coatings on food packaging
- Dust suppressants
- Cleaning agent for stainless steel
- Shell egg protecting oil to retain freshness (15 grade only)

## Typical Performance Data

PROPERTY	TEST METHOD	PURITY™ FG WO			
		WO 15	WO 35	WO 68	WO 90
Density, kg/L @ 15°C	D1298	0.847	0.855	0.866	0.872
Gravity, °API	D1298	35.4	33.9	31.8	30.6
Viscosity, cSt @ 40°C / SUS @ 100°F	D445	15 / 82	34 / 176	68 / 347	100 / 522
	D445	3.4 / 38	5.8 / 46	8.9 / 55.7	11.3 / 65
Viscosity Index	D2270	98	111	>100	97
Flash Point, °C / °F	D92	180 / 356	220 / 428	>200 / >392	250 / 482
Pour Point, °C / °F	D97	-18 / 0	-18 / 0	-18 / 0	-12 / 10
Colour, Saybolt	D156	30	30	30	30

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

## Health and Safety

To obtain Material Safety Data Sheets (MSDS), contact your Petro-Canada Lubricants representative, or one of Petro-Canada's TechData Info Lines.

## TechData Info Lines

If you would like to know more about Petro-Canada's PURITY FG WO White Mineral oils, or any other product in our complete line of quality lubricants, please contact us at:

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

# Material Safety Data Sheet

PURITY™ FG WO WHITE MINERAL OIL 15, 35, 68, 90



## 1. Product and company identification

- Common name** : PURITY™ FG WO WHITE MINERAL OIL 15, 35, 68, 90
- Code** : PFWO15, 491-030; PFWO35, 491-031; PFGWO68, 491-029; PFWO90, 491-033
- Material uses** : Purity FG WO White Mineral Oil 15, 35, 68, 90 are highly refined white mineral oils intended for the food processing industry.
- NSF 3H and H1 Registered.
- This product complies with FDA 21 CFR 172.878 "White Mineral Oil" and 21 CFR 178.3620(a) regulations for direct food contact."
- Certified to NSF/ANSI Standard 60  
Function: Well Pump Lubricant  
Maximum Use Level (MUL): 0.048 mg/L
- Manufacturer** : PETRO-CANADA  
P.O. Box 2844  
150 – 6th Avenue South-West  
Calgary, Alberta  
T2P 3E3
- In case of emergency** : **Petro-Canada: 403-296-3000**  
**Canutec Transportation:**  
**613-996-6666**  
**Poison Control Centre: Consult local telephone directory for emergency number(s).**

## 2. Hazards identification

- Physical state** : Viscous liquid.
- Odor** : Mild petroleum oil like.
- OSHA/HCS status** : While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this MSDS contains valuable information critical to the safe handling and proper use of the product. This MSDS should be retained and available for employees and other users of this product.
- Emergency overview** : No specific hazard.
- Routes of entry** : Dermal contact. Eye contact. Inhalation. Ingestion.
- Potential acute health effects**
- Eyes** : Slightly irritating to the eyes.
- Skin** : Slightly irritating to the skin.
- Inhalation** : No known significant effects or critical hazards.
- Ingestion** : No known significant effects or critical hazards.
- Medical conditions aggravated by over-exposure** : Repeated skin exposure can produce local skin destruction or dermatitis. Repeated or prolonged contact with spray or mist may produce chronic eye irritation and severe skin irritation.
- See toxicological information (section 11)

## 3. Composition/information on ingredients

<u>Name</u>	<u>CAS number</u>	<u>%</u>
White mineral oil	8042-47-5	100

## 4 . First aid measures

- Eye contact** : In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention if irritation occurs.
- Skin contact** : Wash skin thoroughly with soap and water or use recognized skin cleanser. Get medical attention if irritation occurs. Remove contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Inhalation** : If inhaled, remove to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Get medical attention.
- Ingestion** : Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If potentially dangerous quantities of this material have been swallowed, call a physician immediately.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training.

## 5 . Fire-fighting measures

- Flammability of the product** : May be combustible at high temperature.
- Products of combustion** : Carbon oxides (CO, CO<sub>2</sub>), smoke and irritating vapours as products of incomplete combustion.
- Extinguishing media**
- Suitable** : Use an extinguishing agent suitable for the surrounding fire.
- Not suitable** : None known.
- Special exposure hazards** : No specific hazard.
- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
- Special remarks on fire hazards** : Low fire hazard. This material must be heated before ignition will occur.
- Special remarks on explosion hazards** : Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition.

## 6 . Accidental release measures

- Personal precautions** : Immediately contact emergency personnel. Keep unnecessary personnel away. Use suitable protective equipment.
- Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.
- Methods for cleaning up** : If emergency personnel are unavailable, contain spilled material. For small spills, add absorbent (soil may be used in the absence of other suitable materials), scoop up material and place in a sealable, liquid-proof container for disposal. For large spills, dike spilled material or otherwise contain it to ensure runoff does not reach a waterway. Place spilled material in an appropriate container for disposal.

## 7 . Handling and storage

- Handling** : Keep away from heat. Keep away from sources of ignition. Empty containers pose a fire risk. Evaporate the residue under a fume hood. Ground all equipment containing material. Do not ingest. Do not breathe gas/fumes/vapor/spray. Wear suitable protective clothing. If ingested, seek medical advice immediately and show the container or the label. Keep away from incompatibles.
- Storage** : Keep container tightly closed. Store away from incompatible materials (see section 10). Keep container in a cool, well-ventilated area.

## 8 . Exposure controls/personal protection

### Product name

White mineral oil

### Exposure limits

ACGIH TLV (United States). Notes: (oil mist)

TWA: 5 mg/m<sup>3</sup> 8 hour(s).

STEL: 10 mg/m<sup>3</sup> 15 minute(s).

Consult local authorities for acceptable exposure limits.

## 8 . Exposure controls/personal protection

- Engineering measures** : No special ventilation requirements. Good general ventilation should be sufficient to control worker exposure to airborne contaminants. If this product contains ingredients with exposure limits, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure below any recommended or statutory limits.
- Personal protection**
- Eyes** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts.
- Skin** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory** : Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.  
Recommended: organic vapor filter
- Hands** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.  
Recommended: neoprene, nitrile, polyvinyl alcohol (PVA), Viton.
- Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

## 9 . Physical and chemical properties

- Physical state** : Viscous liquid.
- Flash point** : Open cup:  $\geq 175^{\circ}\text{C}$  (347°F) [Cleveland.]
- Auto-ignition temperature** : Not available.
- Flammable limits** : Not available.
- Color** : Clear and bright.
- Odor** : Mild petroleum oil like.
- pH** : Not available.
- Boiling/condensation point** : Not available.
- Pour point** : **15:** -18°C (0°F), **35:** -18°C (0°F), **68:** -18°C (0°F), **90:** -15°C (5°F)
- Melting/freezing point** : Not available.
- Relative density** : 0.859 to 0.870 kg/L @ 15°C (59°F)
- Vapor pressure** : Not available.
- Vapor density** : Not available.
- Volatility** : Not available.
- Odor threshold** : Not available.
- Evaporation rate** : Not available.
- Viscosity** : **15:** 15.00 cSt @ 40°C (104°F), 3.43 cSt @ 100°C (212°F); **35:** 36.06 cSt @ 40°C (104°F), 5.82 cSt @ 100°C (212°F); **68:** 67.77 cSt @ 40°C (104°F), 8.86 cSt @ 100°C (212°F); **90:** 103 cSt @ 40°C (104°F), 11.8 cSt @ 100°C (212°F)
- Solubility** : Insoluble in water.
- LogK<sub>ow</sub>** : Not available.
- Softening Point** : Not available.
- Dropping Point** : Not available.
- Penetration** : Not available.

## 9 . Physical and chemical properties

**Physical/chemical properties comments** : Not available.

## 10 . Stability and reactivity

**Stability and reactivity** : The product is stable.  
**Conditions of instability** : Not available.  
**Incompatibility with various substances** : Reactive with oxidizing agents.  
**Hazardous decomposition products** : May release COx, smoke and irritating vapours when heated to decomposition.  
**Hazardous polymerization** : Will not occur.

## 11 . Toxicological information

### Toxicity data

<u>Product/ingredient name</u>	<u>Test</u>	<u>Result</u>	<u>Route</u>	<u>Species</u>
White mineral oil	LD50	>5000 mg/kg	Oral	Rat
	LD50	>2000 mg/kg	Dermal	Rabbit
	LC50	>2500 mg/m <sup>3</sup> (4 hours)	Inhalation	Rat

### Specific effects

**Carcinogenic effects** : Not listed as carcinogenic by OSHA, NTP or IARC.  
**Mutagenic effects** : No known significant effects or critical hazards.  
**Teratogenicity / Reproductive toxicity** : No known significant effects or critical hazards.

### Sensitization

**Ingestion** : No known significant effects or critical hazards.  
**Inhalation** : No known significant effects or critical hazards.  
**Eyes** : Slightly irritating to the eyes.  
**Skin** : Slightly irritating to the skin.  
**Synergistic products** : Not available.

## 12 . Ecological information

### Ecotoxicity data

<u>Product/ingredient name</u>	<u>Species</u>	<u>Period</u>	<u>Result</u>
<b>Environmental precautions</b>			: No known significant effects or critical hazards.
<b>Bioconcentration factor</b>			Not available.
<b>BOD and COD</b>			Not available.
<b>Biodegradable/OECD</b>			Not available.
<b>Mobility</b>			Not available.
<b>Special remarks on the products of biodegradation</b>			Not available.

## 13 . Disposal considerations

Disposal should be in accordance with applicable regional, national and local laws and regulations. Local regulations may be more stringent than regional or national requirements.

The information presented below only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations.

## 13 . Disposal considerations

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees.

**Waste disposal** : The generation of waste should be avoided or minimized wherever possible. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements.

## 14 . Transport information

Regulatory information	UN number	Proper shipping name	Class	PG*	Label	Additional information
<b>TDG Classification</b>	Not regulated.	-	-	-		-
<b>DOT Classification</b>	Not available.	Not available.	Not available.	-		-

PG\* : Packing group

## 15 . Regulatory information

### United States

**HCS Classification** : Not regulated.

### Canada

**WHMIS (Canada)** : Not controlled under WHMIS (Canada).

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

### EU regulations

**Risk phrases** : This product is not classified according to EU legislation.

### International regulations

#### International lists

**AUSTRALIAN INVENTORY (AICS)** : Listed  
**CANADA INVENTORY (DSL)** : Listed  
**CHINA INVENTORY (IECS)** : Listed  
**EC INVENTORY (EINECS/ELINCS)** : Listed  
**JAPAN INVENTORY (ENCS)** : Listed  
**KOREA INVENTORY (ECL)** : Listed  
**PHILIPPINE INVENTORY (PICCS)** : Listed  
**TSCA 8(b) inventory** : Listed

## 16 . Other information

<b>Hazardous Material Information System (U.S.A.)</b> :	<b>Health</b>	1
	<b>Fire hazard</b>	1
	<b>Reactivity</b>	1
	<b>Personal protection</b>	B

**National Fire Protection Association (U.S.A.)** :



## 16 . Other information

<b>References</b>	: Available upon request. TM/MC Marque de commerce de Petro-Canada - Trademark
<b>Date of printing</b>	: 9/24/2008.
<b>Date of issue</b>	: 9/24/2008.
<b>Date of previous issue</b>	: 4/10/2008.
<b>Responsible name</b>	: Product Safety - JDW
<b>Version</b>	: 8
<b>For Copy of (M)SDS</b>	: Internet: <a href="http://lubricants.petro-canada.ca/msds">lubricants.petro-canada.ca/msds</a>

Lubricants:

Western Canada, telephone: 1-800-661-1199; fax: (780) 464-9564

Ontario & Central Canada, telephone: 1-800-268-5850 and (905) 822-4222; fax: 1-800-201-6285

Quebec & Eastern Canada, telephone: 1-800-576-1686; fax: 1-800-201-6285

For Product Safety Information: (905) 804-4752

### Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.