



PARAFLEX™ HT FLUIDS FOR THE U.S. MARKET

Introduction

Starting with the HT Purity Process, which removes virtually all the undesirable polar and aromatic compounds, Petro-Canada's PARAFLEX HT Process Fluids are composed essentially of saturated hydrocarbons. They are recommended for use as raw materials in the manufacture of a wide range of chemicals, elastomers, and other speciality products.

Compared to competitive process oils, PARAFLEX HT Process Fluids* are 99.9% pure saturated hydrocarbon mixtures that are crystal clear and have very low toxicity. They offer:

- Outstanding oxidative and thermal stability in the presence of a minimal amount of inhibitor
- Crystal clear appearance
- Very low aromatic levels...less than 0.5%
- Very low toxicity
- Excellent separation from water

* PARAFLEX HT 3 and 5 are produced in a single stage hydrocracking process. As a result they are higher in aromatic levels (1-5%).

Features and Benefits

- **Outstanding Oxidative and Thermal Stability in the presence of a minimal amount of inhibitor**
 - Lubricant formulations possible with oxidation resistance 3 to 5 times greater than competitive solvent refined oils
 - Give very low carbon residues

- **High Viscosity Index, with excellent response to VI Improver and Pour Point Depressant additives**

- Lower VI Improver treatment rates required in engine oil formulations
- Lubricant Pour Points lowered by as much as 65°F
- Exceptional low temperature properties

- **Very Light and Clear Color**

- Excellent light stability in the presence of a UV stabilizer
- Ideal for compounding light colored materials, such as plastics, rubber and inks

- **Very Low Aromatic Levels**

- PARAFLEX HT Fluids are virtually non-toxic

Applications

Because of their carefully controlled hydrocarbon contents, Petro-Canada PARAFLEX HT Fluids are recommended for use as raw materials in the manufacture of a wide range of industrial products including:

- Lubricants
- Chemicals
- Rubber & Plastics
- Leather
- Adhesives
- Polishes
- Plate Glass / Glass Wool

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.



Typical Performance Data

PROPERTY	TEST METHOD	PARAFLEX HT FLUIDS										
		3	4	5	9	10	15	22	32	46	68	100
Density, lbs/US gal @ 60°F	D4052	7.05	6.88	7.13	6.93	7.15	7.10	7.07	7.21	7.22	7.24	7.26
Color, ASTM	D1500	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Viscosity, cSt @ 40°C cSt @ 100°C SUS @ 100°F SUS @ 210°F	D445	3.6	3.7	5.7	9.8	11.0	15.5	20.6	35.6	45.9	68.4	101
		1.4	1.4	1.8	2.6	2.8	3.5	4.2	5.7	6.8	8.9	11.5
	D2161	38.5	38.8	45.8	60.5	65.4	84.5	108	184	237	354	526
		<32	<32	32.2	34.8	35.3	37.7	40.3	45.0	48.8	55.9	65.3
Viscosity Index	D2270	—	—	—	98	83	100	109	97	103	103	101
Flash Point, °F	D92	259	274	303	356	355	390	410	421	421	464	518
Pour Point, °F	D5950	-11	-69	10	-39	-11	-11	-6	0	5	5	5
Demusibility @ 130°F mL of water separated (minutes)	D1401	40 (5)	40 (5)	40 (5)	40 (5)	40 (5)	40 (5)	40 (5)	40 (5)	40 (5)	40 (5)	40 (5)
Aniline Point, °F	D611	169	194	180	217	205	212	230	228	228	244	253
Aromatics, wt %	PCM 435	2.2	<0.5	3.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

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

Health and Safety

When used as directed, Petro-Canada PARAFLEX HT Fluids have no adverse effects on health. Beyond normal hygiene, no special precautions are required. To obtain Material Health and Safety Data Sheets, contact one of Petro-Canada's 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

You can also e-mail us at lubecsr@suncor.com

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

Visit us on the web at lubricants.petro-canada.com