PARAFLEX™ HT FLUIDS
FOR THE U.S. MARKET

Introduction
Starting with the patented 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 specialty 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

• 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
# Typical Performance Data

<table>
<thead>
<tr>
<th>PROPERTY</th>
<th>TEST METHOD</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>9</th>
<th>10</th>
<th>15</th>
<th>22</th>
<th>32</th>
<th>46</th>
<th>68</th>
<th>100</th>
</tr>
</thead>
<tbody>
<tr>
<td>Density, lbs/US gal @ 60°F</td>
<td>D4052</td>
<td>7.05</td>
<td>6.88</td>
<td>6.73</td>
<td>6.93</td>
<td>7.15</td>
<td>7.10</td>
<td>7.07</td>
<td>7.21</td>
<td>7.22</td>
<td>7.24</td>
<td>7.26</td>
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<tr>
<td>Color, ASTM</td>
<td>D1500</td>
<td>&lt;0.5</td>
<td>&lt;0.5</td>
<td>&lt;0.5</td>
<td>&lt;0.5</td>
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<td>&lt;0.5</td>
<td>&lt;0.5</td>
<td>&lt;0.5</td>
</tr>
<tr>
<td>Viscosity, cSt @ 40°C</td>
<td>D445</td>
<td>3.6</td>
<td>3.7</td>
<td>5.7</td>
<td>9.8</td>
<td>11.0</td>
<td>15.5</td>
<td>20.6</td>
<td>35.6</td>
<td>45.9</td>
<td>68.4</td>
<td>101</td>
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<tr>
<td>cSt @ 100°C</td>
<td>D2161</td>
<td>1.4</td>
<td>1.4</td>
<td>1.8</td>
<td>2.6</td>
<td>2.8</td>
<td>3.5</td>
<td>4.2</td>
<td>5.7</td>
<td>6.8</td>
<td>8.9</td>
<td>11.5</td>
</tr>
<tr>
<td>SUS @ 100°F</td>
<td>D2161</td>
<td>38.5</td>
<td>38.8</td>
<td>45.8</td>
<td>60.5</td>
<td>65.4</td>
<td>84.5</td>
<td>108</td>
<td>184</td>
<td>237</td>
<td>354</td>
<td>526</td>
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<tr>
<td>SUS @ 210°F</td>
<td>D2161</td>
<td>&lt;32</td>
<td>&lt;32</td>
<td>32.2</td>
<td>34.8</td>
<td>35.3</td>
<td>37.7</td>
<td>40.3</td>
<td>45.0</td>
<td>48.8</td>
<td>55.9</td>
<td>65.3</td>
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<tr>
<td>Viscosity Index</td>
<td>D2270</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>98</td>
<td>83</td>
<td>100</td>
<td>109</td>
<td>97</td>
<td>103</td>
<td>103</td>
<td>101</td>
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<tr>
<td>Flash Point, °F</td>
<td>D92</td>
<td>259</td>
<td>274</td>
<td>303</td>
<td>356</td>
<td>355</td>
<td>390</td>
<td>410</td>
<td>421</td>
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<td>Pour Point, °F</td>
<td>D5950</td>
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<td>-11</td>
<td>10</td>
<td>-39</td>
<td>-11</td>
<td>-11</td>
<td>-6</td>
<td>0</td>
<td>5</td>
<td>5</td>
<td>5</td>
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<tr>
<td>Demulsibility @ 130°F mL of water separated (minutes)</td>
<td>D1401</td>
<td>40 (5)</td>
<td>40 (5)</td>
<td>40 (5)</td>
<td>40 (5)</td>
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<tr>
<td>Aniline Point, °F</td>
<td>D611</td>
<td>169</td>
<td>194</td>
<td>180</td>
<td>217</td>
<td>205</td>
<td>212</td>
<td>230</td>
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<td>228</td>
<td>244</td>
<td>253</td>
</tr>
<tr>
<td>Aromatics, wt %</td>
<td>PCM 435</td>
<td>2.2</td>
<td>&lt;0.5</td>
<td>3.5</td>
<td>&lt;0.5</td>
<td>&lt;0.5</td>
<td>&lt;0.5</td>
<td>&lt;0.5</td>
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</tr>
</tbody>
</table>

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 would like to know more about Petro-Canada PARAFLEX HT Fluids, or any other product in our complete line of quality lubricants, please contact us at:

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

Canada - West
- Phone 1-800-661-1199
- Phone 1-800-268-5850
- Phone 1-800-576-1686

East (English)
- Phone 1-800-268-5850
- Phone (416) 730-2408

(French)
- Phone (416) 730-2408

Other Areas
- Phone 1-800-661-1199
- Phone 1-800-576-1686

E-mail
- lubecsr@suncor.com

Website
- lubricants.petro-canada.ca

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Petro-Canada is a Suncor Energy business

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