SpectraSyn Plus™ 6
Advanced Polyalphaolefin (PAO) Fluid

Product Description
SpectraSyn Plus™ Advanced Polyalphaolefin (PAO) provide an optimal combination of volatility and low-temperature fluidity. SpectraSyn Plus™ Advanced PAO products viscosity indices translate into improved flow at low temperatures and increased film thickness at high temperatures. SpectraSyn Plus™ Advanced PAO provide superior lubrication as the primary basestocks for synthetic lubricants used in passenger car engines, heavy-duty diesel engines, transmissions, and a variety of industrial applications. SpectraSyn Plus™ Advanced PAO can be used for upgrading mineral oil or Group III basestocks for improved low temperature and volatility performance.

General Availability
- Africa & Middle East
- Asia Pacific
- Central America
- Europe
- North America
- South America

Basics

<table>
<thead>
<tr>
<th>Property</th>
<th>Typical Value (English)</th>
<th>Typical Value (SI)</th>
<th>Test Based On</th>
</tr>
</thead>
<tbody>
<tr>
<td>Specific Gravity (60.1°F (15.6°C))</td>
<td>0.827</td>
<td>0.827</td>
<td>ASTM D4052</td>
</tr>
<tr>
<td>Appearance (0°F (-18°C))</td>
<td>Bright &amp; Clear</td>
<td>Bright &amp; Clear</td>
<td>Visual</td>
</tr>
<tr>
<td>Color</td>
<td>&lt; 0.5</td>
<td>&lt; 0.5</td>
<td>ASTM D1500</td>
</tr>
<tr>
<td>Kinematic Viscosity 212°F (100°C)</td>
<td>5.9 cSt</td>
<td>5.9 mm²/s</td>
<td>ASTM D445</td>
</tr>
<tr>
<td>104°F (40°C)</td>
<td>30.3 cSt</td>
<td>30.3 mm²/s</td>
<td></td>
</tr>
<tr>
<td>-40°F (-40°C)</td>
<td>7400 cSt</td>
<td>7400 mm²/s</td>
<td></td>
</tr>
<tr>
<td>Viscosity Index</td>
<td>143</td>
<td>143</td>
<td>ASTM D2270</td>
</tr>
<tr>
<td>Pour Point</td>
<td>&lt; -65 °F</td>
<td>&lt; -54 °C</td>
<td>ASTM D5950/D97</td>
</tr>
<tr>
<td>Flash Point, COC</td>
<td>475 °F</td>
<td>246 °C</td>
<td>ASTM D92</td>
</tr>
<tr>
<td>Noack Volatility</td>
<td>&lt; 6.0 wt%</td>
<td>&lt; 6.0 wt%</td>
<td>ASTM D5800/DIN5181</td>
</tr>
<tr>
<td>Water</td>
<td>&lt; 50 ppm</td>
<td>&lt; 50 ppm</td>
<td>ASTM D6304</td>
</tr>
<tr>
<td>Refractive Index (77°F (25°C))</td>
<td>1.4579</td>
<td>1.4579</td>
<td>ASTM D1218</td>
</tr>
<tr>
<td>Total Acid Number</td>
<td>&lt; 0.0500 mg KOH/g</td>
<td>&lt; 0.0500 mg KOH/g</td>
<td>ASTM D974 (mod)</td>
</tr>
</tbody>
</table>

Flow

<table>
<thead>
<tr>
<th>Property</th>
<th>Typical Value (English)</th>
<th>Typical Value (SI)</th>
<th>Test Based On</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apparent Viscosity by Mini-Rotary</td>
<td></td>
<td></td>
<td>ASTM D4684</td>
</tr>
<tr>
<td>Viscometer 2 -40°F (-40°C)</td>
<td>6243 cP</td>
<td>6243 cP</td>
<td></td>
</tr>
<tr>
<td>Brookfield Viscosity 2 (-40°F (-40°C))</td>
<td>6289 cP</td>
<td>6289 cP</td>
<td>ASTM D2983</td>
</tr>
<tr>
<td>Cold Cranking Simulator 77°F (25°C)</td>
<td>1400 cP</td>
<td>1400 cP</td>
<td>ASTM D5293</td>
</tr>
<tr>
<td>-22°F (-30°C)</td>
<td>2247 cP</td>
<td>2247 cP</td>
<td></td>
</tr>
<tr>
<td>-31°F (-35°C)</td>
<td>3600 cP</td>
<td>3600 cP</td>
<td></td>
</tr>
</tbody>
</table>

Thermal

<table>
<thead>
<tr>
<th>Property</th>
<th>Typical Value (English)</th>
<th>Typical Value (SI)</th>
<th>Test Based On</th>
</tr>
</thead>
<tbody>
<tr>
<td>Density Correction Factor (Calculated)</td>
<td>0.000632 (g/cm³)/°C</td>
<td>0.000632 (g/cm³)/°C</td>
<td>ASTM D1250</td>
</tr>
<tr>
<td>Fire Point, COC 2</td>
<td>532 °F</td>
<td>278 °C</td>
<td>ASTM D92</td>
</tr>
<tr>
<td>Evaporation Loss 2 (401°F (205°C), 6.5 hr)</td>
<td>5.7 wt%</td>
<td>5.7 wt%</td>
<td>ASTM D972 (mod)</td>
</tr>
<tr>
<td>Vapor Pressure (302°F (150°C), Calculated)</td>
<td>0.2 mm Hg</td>
<td>0.2 mm Hg</td>
<td>ASTM D2879</td>
</tr>
</tbody>
</table>

Typical properties: these are not to be construed as specifications.

© 2010 ExxonMobil. To the extent the user is entitled to disclose and distribute this document, the user may forward, distribute, and/or photocopy this copyrighted document only if unaltered and complete, including all of its headers, footers, disclaimers, and other information. You may not copy this document to a Web site. ExxonMobil does not guarantee the typical (or other) values. Analysis may be performed on representative samples and not the actual product shipped. The information in this document relates only to the named product or materials when not in combination with any other product or materials. We based the information on data believed to be reliable on the date compiled, but we do not represent, warrant, or otherwise guarantee, expressly or impliedly, the merchantability, fitness for a particular purpose, suitability, accuracy, reliability, or completeness of this information or the products, materials, or processes described. The user is solely responsible for all determinations regarding any use of material or product and any process in its territories of interest. We expressly disclaim liability for any loss, damage, or injury directly or indirectly suffered or incurred as a result of or related to anyone using or relying on any of the information in this document. There is no endorsement of any product or process, and we expressly disclaim any contrary implication. The terms, "we", "our", "ExxonMobil Chemical", or "ExxonMobil" are used for convenience, and may include any one or more of ExxonMobil Chemical Company, Exxon Mobil Corporation, or any affiliates they directly or indirectly steward, ExxonMobil, the ExxonMobil Logo, the Interlocking "X" Device, and all other product names used herein are trademarks of ExxonMobil unless indicated otherwise.
### Thermal

<table>
<thead>
<tr>
<th>Performance</th>
<th>Typical Value (English)</th>
<th>Typical Value (SI)</th>
<th>Test Based On</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Dielectric Constant</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>77°F (25°C), Calculated</td>
<td>2.11</td>
<td>2.11</td>
<td>ASTM D924</td>
</tr>
<tr>
<td><strong>Dielectric Strength (Calculated)</strong></td>
<td>39.4 kV</td>
<td>39.4 kV</td>
<td>ASTM D877</td>
</tr>
<tr>
<td><strong>High-Temp. High-Shear Viscosity</strong></td>
<td>1.86 cP</td>
<td>1.86 cP</td>
<td>ASTM D5481</td>
</tr>
</tbody>
</table>

### Solubility

<table>
<thead>
<tr>
<th>Solubility</th>
<th>Typical Value (English)</th>
<th>Typical Value (SI)</th>
<th>Test Based On</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Aniline Point (Calculated)</strong></td>
<td>257.0 °F</td>
<td>125.0 °C</td>
<td>ASTM D611</td>
</tr>
</tbody>
</table>

### Additional Information

Technical White Mineral Oil, 21 CFR 178.3620(b)
National Sanitation Foundation (NSF) White book, category code H1, Lubricants with incidental food contact

### Legal Statement

For detailed Product Stewardship information, please contact Customer Service.

### Notes

1. Product may not be available in one or more countries in the identified Availability regions. Please contact your Sales Representative for complete Country Availability.

2. Single sample or two sample average determinations

For additional technical, sales and order assistance:

**Worldwide and the Americas**

ExxonMobil Chemical Company
13501 Katy Freeway
Houston, TX 77079-1398
USA
1-281-870-6050

**Asia Pacific**

ExxonMobil Chemical Singapore Pte. Ltd.
1 HarbourFront Place
#06-00 HarbourFront Tower One
Singapore 098633
66-2163-8444

**Europe, Middle East and Africa**

ExxonMobil Chemical Europe
Hermeslaan 2
1831 Machelen, Belgium
420-239-016-274

Typical properties: these are not to be construed as specifications.

© 2010 ExxonMobil. To the extent the user is entitled to disclose and distribute this document, the user may forward, distribute, and/or photocopy this copyrighted document only if unaltered and complete, including all of its headers, footers, disclaimers, and other information. You may not copy this document to a Web site. ExxonMobil does not guarantee the typical (or other) values. Analysis may be performed on representative samples and not the actual product shipped. The information in this document relates only to the named product or materials when not in combination with any other product or materials. We based the information on data believed to be reliable on the date compiled, but we do not represent, warrant, or otherwise guarantee, expressly or impliedly, the merchantability, fitness for a particular purpose, suitability, accuracy, reliability, or completeness of this information or the products, materials, or processes described. The user is solely responsible for all determinations regarding any use of material or product and any process in its territories of interest. We expressly disclaim liability for any loss, damage, or injury directly or indirectly suffered or incurred as a result of or related to anyone using or relying on any of the information in this document. There is no endorsement of any product or process, and we expressly disclaim any contrary implication. The terms, “we”, “our”, “ExxonMobil Chemical”, or “ExxonMobil” are used for convenience, and may include any one or more of ExxonMobil Chemical Company, Exxon Mobil Corporation, or any affiliates they directly or indirectly steward. ExxonMobil, the ExxonMobil Logo, the Interlocking “X” Device, and all other product names used herein are trademarks of ExxonMobil unless indicated otherwise.