**Technical Data Sheet (TDS)**

---

**PUMA SYNTHETIC COMPRESSOR OIL 46**

**Synthetic Rotary/Reciprocating Compressor Oil**

Puma Synthetic Compressor Oils are formulated from High quality PAO (Poly Alpha Oelfin) base stocks that deliver reliable protection for rotary sliding vane and screw air compressors. All grades are treated with antioxidant anti-rust and anti-wear additives. It has an additive system to provide good protection and performance for air compressor’s running up to 25 bar and excess of 100 degrees discharge temp. With oil maintenance intervals up to 12,000 hours.

---

**Designed to Perform**

**Oxidation Resistance - Longer Oil Life**

Formulated using PAO (Poly Alpha Oelfin) base stocks which provide extremely good oil life and Lubricant stability even when subjected to unusually high thermal stresses and chemical break down; this property minimizes sludge and deposit formation. Maintenance costs are therefore reduced and the useful service life of the oil is extended.

**Outstanding Anti-wear Protection – Increased Equipment Life**

Proven anti wear additive packages provide greater resistance to sliding wear which is crucial in screw type Compressors thus ensuring system efficiency and longer life of all moving parts.

**Extreme Cleanliness Performance**

Does not form gums or carbon deposits on the hot parts of the compressor, thus minimizing ring sticking and obstruction of delivery valve ports. Resulting in improved equipment efficiency.

It has a low carbon residue and very little tendency to form carbon on hot parts of the compressor, as demonstrated by the DIN 51352, with results exceeding the specifications lower limits.

**Non Toxic**

The product is non-toxic since it contains no lead compounds; it can thus be used in oil-mist lubrication systems.

**Increased Anti-corrosion & Anti-rust properties**

These inhibit the oxidation of internal surfaces of industrial compressor systems. It has no rust forming tendency, and passes the ASTM D 665 A/B test. Puma Synthetic Compressor Oils have excellent water separation properties which help efficient compressor operation even in the presences of water.

**Increased System Efficiency**

Puma Synthetic Compressor Oils are designed to provide extremely good air release properties without foaming tendency hence resulting in trouble free operation even under start / stop cycling conditions helping to ensure availability. It has lower volatility and oil carry over due to the PAO base stocks hence reduced oil top-up are required and increased Air quality.

**Compatibility & Miscibility**

Puma Synthetic Compressor Oils are compatible with various seal materials (Rubber) compatible with synthetic base oils. This helps prevent premature failure of seals and thus avoid leakage and loss of efficiency.

**Performance Characteristics**

Puma Synthetic Compressor Oils are recommended for the lubrication of reciprocating air compressors, including those with very high air delivery temperatures (200°C or more). They have been developed specifically for rotary compressors (screw and vane). They may also be used where extremely high ambient temperatures are found.

**Puma Compressor Oil 46**

Meets the requirements of the following specifications:

- General Electric Company
- GEK 32568 F, GEK 101941A (FZG/FLS = 8), GEK 107395 A, GEK 28143A,
- GEK 46506D
- DIN 51 524 Part 1 (HL)
- DIN 51 515 Part 1 (L-TD)
- DIN 51 515 Part 2 (L-TG)
- British Standard 489 (CIGRE)

---

The information contained herein is accurate at the time of this review. However specifications change from time to time. Ensure specifications meet equipment manufacture requirements.

Document No: 21832 – 21/10/2016
Printed Copies are UNCONTROLLED
Technical Data Sheet (TDS)

- MIL-L-17672 D, MIL-L-17331-G, MIL-L-17331-B
- CEGB Standard 207001
- U.S. Steel 120, 126
- Cincinnati Machine P-38, P-45, P-54, P-55, P-57, P-62
- Westinghouse 21T0591 and 55125Z3
- ABB HTGD 90 117 V0001R 117 (FZG/FLS = 9)
- ABB-Stal VTI 3200-3, 81 21 08
- AFNOR E-48600 HL
- Siemens AG TLV 9013 04/01 (FZG/FLS = 8)
- Solar ES9-224U
- Mitsubishi Heavy Industries E00-87182
- ASTM D 4304, Type II (EP)

Typical Physical Characteristics

<table>
<thead>
<tr>
<th>Property</th>
<th>Temp</th>
<th>Units</th>
<th>Test Methods</th>
<th>Comp Oil 46</th>
</tr>
</thead>
<tbody>
<tr>
<td>ISO Viscosity Grade</td>
<td></td>
<td></td>
<td>ISO 3448</td>
<td>46</td>
</tr>
<tr>
<td>ISO Fluid Type</td>
<td></td>
<td></td>
<td>HM</td>
<td></td>
</tr>
<tr>
<td>Kinematic Viscosity @ 40°C</td>
<td>cSt</td>
<td></td>
<td>ASTM D445</td>
<td>46</td>
</tr>
<tr>
<td>Kinematic Viscosity @ 100°C</td>
<td>cSt</td>
<td></td>
<td>ASTM D445</td>
<td>7.7</td>
</tr>
<tr>
<td>Viscosity Index (VI)</td>
<td></td>
<td></td>
<td>ASTM D4292</td>
<td>135</td>
</tr>
<tr>
<td>Flash Point (COC)</td>
<td>°C</td>
<td></td>
<td>ASTM D92</td>
<td>230</td>
</tr>
<tr>
<td>Pour Point</td>
<td>°C</td>
<td></td>
<td>ASTM D97</td>
<td>-45</td>
</tr>
<tr>
<td>Density @ 15 °C</td>
<td></td>
<td>kg/m³</td>
<td>ASTM 4052</td>
<td>0.843</td>
</tr>
<tr>
<td>FZG Test Failure Load Stage</td>
<td>CEC-L-07-A-95</td>
<td></td>
<td>&gt;12</td>
<td></td>
</tr>
<tr>
<td>Air Release</td>
<td>mins</td>
<td></td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>Water Separability</td>
<td>min</td>
<td></td>
<td>ASTM D1401</td>
<td>10</td>
</tr>
<tr>
<td>RPVOT</td>
<td>mins</td>
<td></td>
<td>ASTM D2272</td>
<td>2200</td>
</tr>
</tbody>
</table>

These characteristics are typical of current product methods whilst future production will conform to Puma Lubricants specifications, variations in these physical characteristics may occur.

Health & Safety Environment

- This product is unlikely to present any significant health and safety hazard when properly used in the recommended application and good standards of personal hygiene are maintained.
- Avoid contact with eyes and Skin. Use proper impervious gloves with used oil. After skin contact, wash immediately with soap and water. Guidance on health and safety is available on the appropriate Material Safety Data Sheet (MSDS) which can be obtained from lubricants@pumaenergy.com

Protect the Environment

- Take used oil to an authorized collection point. Do not discharge used or new oil into drains, soil or water.

Additional Information

- Technical advice on any applications not covered here may be obtained from your Puma Energy Representative.