Description
Very high performance and high quality SHPD lubricant oil. Recommended for all kinds of diesel engines, especially for the supercharged engines of TIR vehicles. It meets the requirements of both engine manufacturers and international classifications and specifications for long drainage period lubricants.

Properties
- Can be used when biodiesel is used as fuel, following the recommended change periods laid down by the manufacturers.
- It prevents cylinder casing polishing, which is very typical in supercharged high horsepower engines.
- Very stable multigrade oil with high shearing resistance.
- Especially suitable for vehicles that must comply with EURO I and EURO II standards regarding the reduction in the emission of contaminating gases and particles.
- It contains efficient corrosion, oxidation, rust and foam formation inhibitors.
- It prevents the formation of sludge when cold, obstructions in oil conduits and clogging of the filter of the latter.
- It maintains an adequate pressure in all working conditions.
- Its ability to disperse sludge and other oxidation products prevents the formation of varnishes; it keeps the pistons clean and prevents segments from adhering.
- High fluidity in cold conditions, thus facilitating ignition and fuel saving, in addition to increasing protection against wear.
- Its modern detergency/dispersancy components enable the use of fuels with high and low sulphur content and neutralise the acids formed in the combustion of diesel while keeping the carbonaceous particles in suspension.
- Also applicable in public works, mining, agriculture and cogeneration when a low consumption lubricant is required.

Quality Levels, approvals and recommendations
- API CH-4/CG-4/CF-4/SJ*
- ACEA E5
- MB 228.3*
- MAN 3275-1*
- VOLVO VDS-2*
- CUMMINS 20076
- MACK EO-M*
- MTU CAT 2*

*Formal approval

A safety data sheet is available on request.
repsol.com
+34 901 111 999
lubricantes@repsol.com

Technical specifications

<table>
<thead>
<tr>
<th>SAE GRADE</th>
<th>UNIT</th>
<th>METHOD</th>
<th>VALUE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Density at 15 °C</td>
<td>g/mL</td>
<td>ASTM D 4052</td>
<td>0.882</td>
</tr>
<tr>
<td>Viscosity at 40 °C</td>
<td>cSt</td>
<td>ASTM D 445</td>
<td>107</td>
</tr>
<tr>
<td>Viscosity at 100 °C</td>
<td>cSt</td>
<td>ASTM D 445</td>
<td>14.5</td>
</tr>
<tr>
<td>Viscosidad a -20 °C</td>
<td>cP</td>
<td>ASTM D 5293</td>
<td>7000 max.</td>
</tr>
<tr>
<td>Viscosity index</td>
<td>-</td>
<td>ASTM D 2270</td>
<td>125 min.</td>
</tr>
<tr>
<td>Flash point</td>
<td>°C</td>
<td>ASTM D 92</td>
<td>215 min.</td>
</tr>
<tr>
<td>Pour point</td>
<td>°C</td>
<td>ASTM D 97</td>
<td>-27 max.</td>
</tr>
<tr>
<td>T. B. N.</td>
<td>mg KOH/g</td>
<td>ASTM D 2896</td>
<td>10.0</td>
</tr>
<tr>
<td>Bosch Injector:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Viscosity at 100 °C after shear</td>
<td>cSt</td>
<td>CEC-L-14-93</td>
<td>12.5 min.</td>
</tr>
<tr>
<td>Noack Volatility 1 h at 250 °C</td>
<td>% in weight</td>
<td>CEC-L-40-93</td>
<td>13 max.</td>
</tr>
</tbody>
</table>

The above mentioned characteristics are typical values and should not be considered product specifications.