Shell Shell HD Coolant-N Pre-Diluted 50/50 and 33/67 are high quality heavy duty fully formulated ethylene glycol engine coolants premixed and ready to use, containing borate, nitrite, nitrate and silicate corrosion inhibitors. They are suitable for heavy duty applications without supplemental coolant additives during the initial fill. Shell HD Coolant-N Pre-Diluted 50/50 and 33/67 are ready to use and require no additional dilution with water.

**Applications**
- Heavy duty engine coolant (antifreeze) Shell HD Coolant-N Pre-Diluted 50/50 and 33/67 are amine and phosphate free fully formulated engine coolant (antifreeze) suitable for heavy duty gasoline and diesel engines found in on-road, offroad, marine, farm, mining and construction.

Shell HD Coolant-N Pre-Diluted Coolants contain borate, nitrite, nitrate and silicate inhibitors. These products do not require a charge of supplemental coolant additives (SCAs) during initial fill or if the coolant is totally replaced. It is recommended in diesel applications that the coolant be checked and SCAs replenished to comply with the engine OEM recommendations. The Shell HD Coolant-N Pre-Diluted 50/50 and 33/67 are specifically formulated to protect cylinder liners from pitting in heavy duty applications. The 33/67 formulation contains the same level of inhibitor package as the 50/50 for full protection of the equipment. The low silicate levels also provide aluminium compatibility for use in mixed fleet, gasoline and diesel, applications.

**Performance Features**
- **All-climate Year Round Performance**
  - As sold Shell HD Coolant-N Pre-Diluted 50/50 provides freeze protection to -37°C and boilover protection to 129°C, while Shell HD Coolant-N Pre-Diluted 33/67 provides freeze protection to -18°C and boilover protection to 124°C, with the use of a 103.4 kPa pressure cap.

**Long Service Life**
- Shell HD Coolant-N Pre-Diluted 50/50 and 33/67 typically provides up to 3,000 hours or 240,000 km in heavy duty applications under normal operating conditions, provided the coolant is kept in good condition with the SCAs levels in line with the engine OEM’s specs.

**Field Compatibility**
- Shell HD Coolant-N Pre-Diluted Coolants are miscible and compatible with other traditional fully formulated coolants (antifreezes). They are also compatible with standard heavy duty SCAs, coolant filters. As sold it is ready for use - do not add water.

Shell HD Coolant-N Pre-Diluted 50/50 and 33/67 are part of the Shell family of heavy duty lubricants and coolants for the heavy duty market.

**Specifications, Approvals**
Shell HD Coolant-N Pre-Diluted 50/50 and 33/67 have been formulated to meet following coolant specifications:
- ASTM D3306, D4985, D6210
- AS/NZS 2108:1999 “Type A”
- Caterpillar (other than EC-1)
- Cummins Bulletin J666132
- Detroit Diesel 75E298; 93K217
- DaimlerChrysler MS 7170;
- Ford ESE-M97B44-A, ESE-M97B18-C
- Freightliner 48-22880
- General Motors 1825M, 1899M, Heavy Truck
- John Deere HD 24
- International (IT&E) CEMS B-1
- Kenworth RO26-170-97
- Mack Truck
- New Holland WSN-M97B18-D
- PACCAR
- Peterbilt 8502,002
- SAE J1034, J1941
- TMC RP 329
- Scania 6901
- Volvo Heavy Truck

**Typical Physical Characteristics**

<table>
<thead>
<tr>
<th>CHARACTERISTICS</th>
<th>32</th>
</tr>
</thead>
<tbody>
<tr>
<td>Specific Gravity 15.6°C (ASTM D 1122)</td>
<td>1.060–1.080</td>
</tr>
<tr>
<td>pH (ASTM D 1287)</td>
<td>10–11</td>
</tr>
<tr>
<td>Reserve Alkalinity (ml 0.1 N HCL) (ASTM D 1121)</td>
<td>4.0 min.</td>
</tr>
<tr>
<td>Freeze Point 50% volume (ASTM D 1177)</td>
<td>–37°C</td>
</tr>
<tr>
<td>Ash Content (% w/w) (ASTM D 1119)</td>
<td>1.0 max.</td>
</tr>
<tr>
<td>Colour</td>
<td>Green</td>
</tr>
<tr>
<td>Shelf Life (unused)</td>
<td>2 years</td>
</tr>
<tr>
<td>Silicon as silicate (ppm–max.)</td>
<td>135</td>
</tr>
</tbody>
</table>

**Typical Freeze/Boilover Protection Mixing Chart**

<table>
<thead>
<tr>
<th>SHELL HD COOLANT-N PRE-DILUTED 50/50 AS SOLD</th>
<th>50/50</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freeze Point Protection °C</td>
<td>–37</td>
</tr>
<tr>
<td>Freeze Point Protection °C using a 103.4 kPa pressure cap</td>
<td>+129</td>
</tr>
</tbody>
</table>