Mobil Antifreeze Extended Long Life

Data Sheets

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Properties

Mobil Antifreeze Extended Long Life Concentrate is an ethylene glycol based fluid that provides maintenance-free protection against freezing and boiling but also against corrosion. Extended coolant life, often for the whole life of the engine or vehicle is obtained through the use of virtually non-depleting corrosion inhibitors.

Mobil Antifreeze Extended Long Life Concentrate offers many benefits to the engine designer as well as to the user:

- Improved heat transfer
- Reduces repairs
- Reliability
- Improved hard water stability
- Save time and money
- Suitable for mixed fleets
- Environmentally friendly

Mobil Antifreeze Extended Long Life fulfills the requirements of the following antifreeze standards:

- ASTM D4656
- ASTM D4985
- ASTM D6210
- BS 6580
- NFR 15-601
- PVV Heft R443
- JIS K2234
- KS M 2142
- BT-PS-606 A
- DCSEA 615/C
- E/L-14155
- FSD 8704
- Nato S-759
- ONORM V5123
- SAE J1034
- UNI 26-361-88/1

Meets performance requirements of the following OEMs:

- ADE
- AGCO Fendt and Valtra
- Aston Martin
- BAIC Group Foton, Q-FPT 2313005-2013
- Caterpillar (C-1, MAK and MWM, 01999-991-2011/12
- Claas
- CNH Industrial (MAT 3624)
- Cummins CES 14603, CES 14439, IS Series and N14 Engines
- Daimler AG Mercedes-Benz, (325.3 and 326.3) and Daimler AG Detroit, (DP593K217)
- Deutz, (DQG CB-14)
- DRB-HICOM
- DAF
- Fiat (155523)
- Ford, (WSS-MY784D-4)
- General Motors, Chevrolet, Saab, (B 0401065), Saturn
- Great Wall Motors
- Hitech
- Innio Jenbacher, (TA 1000-0200) and Waukesha
- John Deere (JDH 65)
- Isuzu
- Irisbus, Karosa
- Kobelco
- Komatsu 07892 (2009)
- Liebherr (MD 1-36-130 Mahle, Behr)
- Mazda, (MEZ MN 121 D)
- Mitsubishi Heavy Industry (MHI)
- Paccar DME (74002) and Leyland Trucks, (DV30245403)
- PSA Opel and Vauxhall (GMW 3420)
- Renault-Nissan (41-01-0001/-S Type D)
- VW Audi (TL-774 D = G 12), TL-774 F = G 12+
- VW MAN, (324 Tip SNF)
- VW MAN Energy Solutions VW MAN (BBW AG, 036-5600)
- VW MAN B&W A/S
- VW Seat, (TL-774 D = G 12 and TL-774 F = G 12+)
- VW Skoda (TL-774 D = G 12, TL-774 F = G 12+ and 61-0-0257)
- VW Volkswagen, (TL-774 D = G 12 and TL-774 F = G 12+)
- VW Serm Pielslag
- Volvo AB Construction and Trucks
- Wärtsilä SACM Diesel, (DLP799861 and 32-9011)
- Yanmar

Quality Control

The listed data represent average values at the time of going to press of this Data Sheet. They are intended as a guide to facilitate handling and cannot be regarded as specified data. Specified product data are issued as a separate product specification.

Packaging

Mobil Antifreeze Extended Long Life Concentrate is available in 20L, 208L and 1000L pack sizes.

Handling

- Minor spills should be soaked up with oil absorbent granules, sand or dirt. The spillage site should then be washed with soapy water and dried.
- Wash off any spillage on paintwork immediately.
- Avoid contact with galvanised equipment when storing or dispensing this product, as this will prompt a corrosive reaction.

Shelf Life

- Mobil Antifreeze Extended Long Life can be stored for minimum 8 years in unopened containers without any effect on the product quality or performance. The product should be stored above -20 °C and preferably at ambient temperatures. Periods of exposure to temperatures above 35 °C should be minimised.
- All packages should be stored under cover. Where outside storage is unavoidable drums should be laid horizontally to avoid the possible ingress of water and damage to drum markings. Products should not be exposed to hot sun or freezing conditions.
- Manufacture date can be identified from an eight digit code printed on the bottle. YYYYMMDD.

Safety

When using this product, the information and advice given in our Safety Data Sheet should be observed. Due attention should also be given to the precautions necessary for handling chemicals.

Note

The data contained in this publication are based on our current knowledge and experience. In view of the many factors that may affect processing and application of our product, these data do not relieve processors from carrying out their own investigations and tests; neither do these data imply any guarantee of certain properties, nor the suitability of the product for a specific purpose. Any descriptions, drawings, photographs, data, proportions, weights, etc. given herein may change without prior information and do not constitute the agreed contractual quality of the product. It is the responsibility of the recipient of our products to ensure that any proprietary rights and existing laws and legislation are observed.

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Frost Protection

To ensure good corrosion protection, it is recommended to use at least 33 vol.% of Mobil Antifreeze Extended Long Life Concentrate in the coolant solution. This provides frost protection to -18°C. Typical mixtures in Northern Europe are 50/50, offering frost protection down to -36°C. Mixtures with more than 70 vol.% Mobil Antifreeze Extended Long Life Concentrate in water are not recommended. The maximum frost protection (about -59°C) is obtained at 68% Mobil Antifreeze Extended Long Life Concentrate.

Freezing Point

<table>
<thead>
<tr>
<th>ASTMD 1177</th>
<th>50% Vol. Solution</th>
<th>below -36°C</th>
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<tbody>
<tr>
<td>1177</td>
<td>33% Vol. Solution</td>
<td>below -18°C</td>
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</table>

Glassware Corrosion Test

ASTM D1384 glassware corrosion tests

<table>
<thead>
<tr>
<th></th>
<th>Brass</th>
<th>Copper</th>
<th>Solder</th>
<th>Steel</th>
<th>Cast Iron</th>
<th>Aluminium</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>10.0</td>
<td>10.0</td>
<td>30.0</td>
<td>10.0</td>
<td>10.0</td>
<td>30.0</td>
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<tr>
<td>Mobil Antifreeze Extended Long Life</td>
<td>1.6</td>
<td>1.9</td>
<td>0.1</td>
<td>-0.5</td>
<td>-1.4</td>
<td>4.6</td>
</tr>
</tbody>
</table>

Heat Transfer Corrosion Test

ASTM D4340 Aluminium heat rejection test, 25 %

<table>
<thead>
<tr>
<th></th>
<th>Weight loss in mg/cm²/week</th>
<th>ASTM D3306 (max)</th>
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</thead>
<tbody>
<tr>
<td>Mobil Antifreeze Extended Long Life</td>
<td>&lt; 0.2</td>
<td>1.0</td>
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</table>

Modified MTU High Temperature corrosion test (2000W)

ASTM D1384 glassware corrosion tests

<table>
<thead>
<tr>
<th></th>
<th>Brass</th>
<th>Copper</th>
<th>Solder</th>
<th>Steel</th>
<th>Cast Iron</th>
<th>Aluminium</th>
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</thead>
<tbody>
<tr>
<td>Test duration, hours Reference coolant</td>
<td>48.0</td>
<td>69.0</td>
<td>116.0</td>
<td>48.0</td>
<td>69.0</td>
<td>116.0</td>
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<tr>
<td>Hot coupon</td>
<td>-30.0</td>
<td>-13.1</td>
<td>4.3</td>
<td>-18.2</td>
<td>284.2</td>
<td>-</td>
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<tr>
<td>Top coupon</td>
<td>-20.0</td>
<td>1.6</td>
<td>5.7</td>
<td>6.2</td>
<td>152.2</td>
<td>-</td>
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<tr>
<td>Mobil HLC</td>
<td>-2.0</td>
<td>-2.1</td>
<td>-0.5</td>
<td>20.2</td>
<td>24.6</td>
<td>35.1</td>
</tr>
<tr>
<td>Hot coupon</td>
<td>3.4</td>
<td>0.1</td>
<td>1.9</td>
<td>20.1</td>
<td>42.1</td>
<td>18.5</td>
</tr>
</tbody>
</table>

1 Weight loss AFTER chemical cleaning acc. to ASTM procedure. Weight gain is indicated by a - sign.
2 Weight loss AFTER chemical cleaning acc. to [shortened] MTU procedure. Weight gain is indicated by a - sign.
3 Reference coolant is a conventional, high quality, silicate-based coolant.