METAL REMOVAL FLUIDS

QUAKERCOOL® 3618 HBFF
METALWORKING WATER SOLUBLE COOLANT

APPLICATION SHEET

BENEFITS

» Boron free

» Formaldehyde free

» Provides good cleanliness on tools/machines and detergency characteristics

» Excellent lubrication properties

» Multi applications

» Provides excellent wetting and heat transfer properties

APPLICATIONS

High performance micro-emulsion ideally suited to all operations where high surface finish quality and high lubrication is needed. Ideal for general purpose machining of most engineering materials

Recommended for all machining operations on steel, cast iron and aluminium alloys.

Concentration range:
6 - 10 % depending on type of operation

Make up water hardness:
90 - 350 ppm (9 - 35 °TH, 5 - 19 °DH)

FLUID MAINTENANCE

Poor or incorrect emulsion preparation may lead to instability and could considerably shorten the life of the emulsion. Prior to making any fresh fill, we highly recommend full cleaning including the use of a compatible systems cleaner of all system components which will be in contact with the emulsion. A wide range of system cleaners* and disinfecting additives* are available from Quaker.

*Please consult a Quaker representative for any additional information.

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STORAGE/PACKAGING

Quaker Chemical can supply this quality product in drums, in containers and in bulk. Other packages can be made available by Quaker Chemical or by distributors upon request.

As with all metalworking products, QUAKERCOOL® 3618 HBFF should be stored in dry conditions and protected from extreme temperatures; 4 - 35 °C is the recommended storage temperature.

QUAKERCOOL® 3618 HBFF is unlikely to present any significant health or safety hazard when used as recommended by Quaker. Good standards of personal and industrial hygiene are to be maintained by the user (see Material Safety Data Sheets).

This product has a recommended shelf life of: 6 months

OPERATIONS

<table>
<thead>
<tr>
<th>PROPERTY</th>
<th>TYPICAL VALUE</th>
<th>UNIT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance / Colour</td>
<td>Clear Light Amber</td>
<td>[-]</td>
</tr>
<tr>
<td>Viscosity</td>
<td>43</td>
<td>[mm²/s @ 40°C]</td>
</tr>
<tr>
<td>Density</td>
<td>1001</td>
<td>[kg/m³ @ 15°C]</td>
</tr>
<tr>
<td>Pour point</td>
<td>&lt;0</td>
<td>[°C]</td>
</tr>
<tr>
<td>Appearance diluted</td>
<td>Translucent</td>
<td>[-]</td>
</tr>
<tr>
<td>pH diluted</td>
<td>9,6</td>
<td>[-]</td>
</tr>
<tr>
<td>Corrosion threshold</td>
<td>4,5</td>
<td>[% DIN 51360 T2]</td>
</tr>
<tr>
<td>Alkalinity factor (pH=5)</td>
<td>2,7</td>
<td>[ml 0,1N/%/ 25 ml]</td>
</tr>
<tr>
<td>Acid split factor</td>
<td>0,31</td>
<td>[ml/%]</td>
</tr>
<tr>
<td>Refractometer factor</td>
<td>1,7</td>
<td>[%/° Brix]</td>
</tr>
</tbody>
</table>

These characteristics are typical of current production and can’t be used as a specification.

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Prior to using this product, consult the Material Safety Data Sheet for instructions regarding safe handling and environmental issues.

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