Description
AMC BIT GUARD™ is a vegetable oil based lubricant and rop enhancer with additives to help prevent clay and shale cuttings from balling at the bit or blocking nozzles. Designed for use in water based fluid systems, AMC BIT GUARD™ is proven effective in fresh and saline conditions.

Its properties were designed for the operating parameters at the face of an impregnated diamond bit giving improved penetration rates and extended bit life.

A fluid system containing AMC BIT GUARD™ promotes hydrophobic coating on both the bit and cuttings surfaces. This prevents clay and shale cuttings from balling up the bit and blocking nozzles, improving bit cutting efficiency and increasing penetration rates.

Advantages
• Economical
• Prevents bit balling and nozzle blockage
• Improves bit life
• Reduces wear on the drill string
• Easy to apply
• Environmentally acceptable.

Please Note: Several factors will dictate the most appropriate concentration rate. Please contact your nearest AMC representative for optimum results.

Application
AMC BIT GUARD™ lubricates by producing a soft, tenacious film layer of micro grease on the drill string and bit. The concentrated wetting agents in the product enhance the cooling and wetting of the impregnated particles and accelerate removal of cuttings, improving penetration rates and extending bit life. AMC BIT GUARD™ has proven to work effectively in a variety of water conditions including fresh to super saline water and in variable alkalinity conditions from basic to acidic.

Typical Physical Properties
<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Amber liquid</td>
</tr>
<tr>
<td>Solubility in water</td>
<td>Miscible</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>0.9 – 1.1</td>
</tr>
<tr>
<td>pH (1% solution)</td>
<td>7 - 9</td>
</tr>
</tbody>
</table>

Recommended Treatment
An initial treatment of 1.0 – 2.0 L / m³ by volume should be applied by addition to the circulating system. The required dosage can be up to 4.0 – 5.0 L / m³ by volume depending on the ROP achieved, amount of shale encountered, type of mud system and the interval length.