CONQOR 404 WH

**CONQOR 404 WH** corrosion inhibitor is an all-purpose, water-soluble organophosphate compound.

A passivating inhibitor used to prevent corrosion on metal surfaces.

**Typical Physical Properties**

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical appearance</td>
<td>Clear yellow liquid</td>
</tr>
<tr>
<td>Specific gravity</td>
<td>1.435-1.445</td>
</tr>
<tr>
<td>pH of 5% solution</td>
<td>7.0-8.0</td>
</tr>
<tr>
<td>Flash point</td>
<td>&gt;200 degF (&gt;93 degC)</td>
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<tr>
<td>Pour point</td>
<td>-10 degF (-23 degC)</td>
</tr>
</tbody>
</table>

**Applications**

CONQOR 404 WH inhibitor is used as a corrosion inhibitor in all water-base drilling fluids, brine water systems and air/mist/foam fluids. CONQOR 404 WH additive at relatively low concentrations is particularly effective against oxygen corrosion in aerated muds used in under balanced drilling operations and low solids non-dispersed water-base fluids.

Typical recommended treatment of CONQOR 404 WH inhibitor is 2-4 gallons for every 100 barrels (0.5-1.0 L/m³) of make-up fluid depending on anticipated conditions, other chemicals used in the system, and the corrosive environment, i.e., salinity, pH, temperature, oxygen content and acid gases. If the corrosion rate is unacceptably high, the concentration should be increased to at least 7 gallons/100 barrels (1.7 L/m³). For aerated systems, an initial treatment of 12 gal/100 bbl (2.9 L/m³) is recommended. The product should be evenly dispersed throughout the circulating mud system and can be added either through the chemical barrel or directly to the mud pits wherever good agitation occurs.

The corrosion rates should be monitored at all times either directly or with corrosion coupons and treatments should be adjusted according to their analysis. A good corrosion-control program includes a thorough make-up-water analysis, chemical treatments for corrosive contaminants and an adequate bacterial control for systems that contain biodegradable additives.

**Advantages**

- Compatible with anionic foamers
- Highly effective against oxygen corrosion caused by dissolved oxygen
- Low toxicity
- Minimum impact on fluids rheology
- Effective in fresh to saturated salt water
- Effective in aerated fluids such as those used in air-drilling operations
- Effective to temperatures in excess of 350 degF (177 degC)
- Does not require an oxygen scavenger
**Limitations**
- Should not be used in packer fluids or other situations where the fluid will not be circulated nor on racked pipe.
- Should not be diluted with alcohol.
- Less effective when calcium exceeds 200 mg/L, increased product concentration required.
- Not compatible with formate brines or fluids.

**Toxicity and Handling**
Bioassay information is available upon request.

Handle as an industrial chemical, wearing protective equipment and observing the precautions described in the Material Safety Data Sheet (MSDS).

**Packaging and Storage**
CONQOR 404 WH additive is packaged in 55-gal (208-L) epoxy lined steel drums and in 5 gallon plastic pails. It is not a DOT regulated material.

Store in a dry, well-ventilated area. Keep container closed. Keep away from heat, sparks and flames. Store away from incompatibles. Follow safe warehousing practices regarding palletizing, banding, shrink-wrapping and/or stacking.