COUNTER RUST™ 199  Corrosion Inhibitor – Metal Protection

Super concentrated water soluble corrosion inhibitor

Application

Counter Rust 199 is a super concentrated, water-based corrosion inhibitor designed to protect all ferrous metals and several non-ferrous metals at low treat rates.

Counter Rust 199 is partially neutralized, requiring the addition of an alkanolamine for optimal corrosion protection.

Counter Rust 199 is ideal for use in synthetic metalworking fluids, alkaline cleaners and water-based quenchants.

Typical Properties

<table>
<thead>
<tr>
<th>Test</th>
<th>Typical</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Clear, amber liquid</td>
</tr>
<tr>
<td>Specific gravity at 15.6° C</td>
<td>1.13</td>
</tr>
<tr>
<td>Active content %</td>
<td>&gt;80</td>
</tr>
<tr>
<td>pH at 1%</td>
<td>7.8</td>
</tr>
<tr>
<td>pH as received</td>
<td>8.3</td>
</tr>
</tbody>
</table>

Benefits

- Effective protection for ferrous and several non-ferrous metals at low treat rate
- Low foaming
- Leaves a non-tacky film removable with alkaline cleaners
- Will no stain yellow metals

Performance

Corrosion on cast iron chips (ASTM 4627-86)

<table>
<thead>
<tr>
<th></th>
<th>% in Water</th>
<th>pH</th>
<th>Corrosion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Counter Rust 199</td>
<td>0.5</td>
<td>9.25</td>
<td>None</td>
</tr>
</tbody>
</table>

With Additional TEA or DGA for extra buffering
Counter Rust 199 is most effective at a pH > 8.7
Counter Rust 199 in partially neutralized. We recommend adding an alkanolamine such as triethanolamine, diglycolamine, amino methyl propanol or other amines to raise the final pH to 8.7
For highly effective in-process corrosion protection, Counter Rust 199 should be at pH 9.0 or higher
For indoor protection, prepare a solution containing 2-3% Counter Rust 199 at a pH of 9.0 or higher to achieve 30 days protection

Recommended Maximum Long Term Storage Temperature* | Ambient
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Recommended Minimum Temperature for Use | Ambient
Flash Point | None to boiling

*Long term storage at temperatures above this may result in loss of performance.

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