Closed Loop Chiller Water Nitrite Based Corrosion Inhibitor

**Description**

Nitrite based chiller water corrosion inhibitor passivates the metal surface and prevents oxidation corrosion and galvanic corrosion in aerated closed loop chiller water systems.

Nitrite based brine corrosion inhibitor removes dissolved oxygen that cause oxidation of metal to metal oxide i.e., Iron + Oxygen = Iron Oxide (Rust)

The inhibitor converts Nitrite (NO2) into Nitrate (NO3) and during this process it removes the excess dissolved oxygen from the system, thus inhibiting oxidation reaction of metal.

The chemical also contains a specific inhibitor to protect copper from corrosion and removes / prevents any sort of scale formation in the system.

The nitrite (NO2) content at optimum concentration in brine solution creates a passivation coating in the internal tubes and pipelines of the chiller water system. This passive coating helps to prevent corrosion.

In addition to this, the nitrite inhibitor combines an antiscalant (scale inhibitor) cum dispersant that prevents the chances of scale deposition in the tubes and pipelines of the chiller water system.

The disadvantages of not treating the closed circuit chiller water system can be very troubling for the system operator:-

1. Leakage in PHE and AHU due to corrosion
2. Plugging and clogging of tubes and reduced flow rate
3. Reduced heat transfer
4. Water fouling and replacement
Chemtex’s nitrite based inhibitor surpasses the performance of other such less effective closed loop treatment chemicals such as Nalco 8338, Nalco 3275, Indion 5545, Indion 5546, Indion 5547 etc.

**Application**

**Specification**

<table>
<thead>
<tr>
<th>Chemical Type</th>
<th>Organic Chemical Compound</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Form</strong></td>
<td>Liquid</td>
</tr>
<tr>
<td><strong>pH</strong></td>
<td>12 + 1</td>
</tr>
<tr>
<td><strong>Solubility</strong></td>
<td>Completely Soluble in Water and glycol</td>
</tr>
</tbody>
</table>

**Dosage**
Closed Loop Corrosion Inhibitor is normally fed continuously to the recirculating closed loop water system by injection dosing pump or dosed to the expansion tank. The amount of chemical required to inhibit corrosion depends on the type of system and plant operating conditions. The specific dosage rates will be specified by the Chemtex technical representative.

**Major Benefits**
- Minimum loss of system metal due to corrosion
- Excellent heat transferability and flow rate
- No need of descaling closed circuit equipments
- Long and extended life of Water without fouling