TECHNICAL DATA SHEET

A 100CT

Multi-Functional Cooling Water Treatment for Open Recirculating Systems

1. PRODUCT DESCRIPTION

A 100CT is a concentrated multi-functional cooling water treatment formulated for use in open recirculating cooling water systems.

The product provides effective control of:
• Mineral scale formation
• Corrosion of ferrous and non-ferrous metals
• Fouling and suspended solids deposition

A 100CT contains a synergistic blend of phosphonate-based scale inhibitors, high-performance organic corrosion inhibitors, and strong dispersing agents.

The formulation is free from heavy metals and suitable for a wide range of makeup water qualities, including moderate to highly stressed systems.

Designed for use in:
• Cooling towers
• Evaporative condensers
• Industrial open recirculating cooling systems

2. MECHANISM OF ACTION

A 100CT acts through a combined treatment mechanism:

Scale Inhibition:
Phosphonates provide threshold inhibition and crystal distortion, preventing precipitation of calcium carbonate and other mineral scales.

Corrosion Protection:
Organic corrosion inhibitors form a protective molecular film on metal surfaces, reducing electrochemical corrosion.

Dispersancy:
Polymeric dispersants maintain suspended solids in dispersion, preventing deposition and fouling.

This multi-functional approach maintains system cleanliness and optimizes heat transfer efficiency.

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3. APPLICATION & DOSAGE

Method of Application

A 100CT may be fed neat directly from the original container or diluted prior to dosing.

Continuous dosing is recommended for best results.

Typical Dosage Range

10 - 25 ppm (as product), depending on:
• Makeup water chemistry
• Cycles of concentration
• System metallurgy
• Operating temperature

Final dosage must be determined based on system survey and water analysis.

Monitoring

• Conductivity and pH monitoring
• Scale indices evaluation
• Residual inhibitor analysis when required

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4. TYPICAL PHYSICAL & CHEMICAL PROPERTIES

Appearance: Yellow liquid
Odor: Mild
pH (as supplied): < 2.0

Specific Gravity @ 25°C: 1.14 ± 0.02
Solubility: Completely soluble in water
Flammability: Non-flammable
Boiling Point: ~100°C
Freezing Point: 0°C

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5. COMPATIBILITY

Material Compatible with:
• Mild Steel
• Carbon Steel
• Stainless Steel (304, 316)
• Copper
• Brass
• PVC
• HDPE
• Polypropylene

Technical Compatible with:
• Suitable for high hardness water
• High temperature stability
• Low foaming
• Compatible with oxidizing biocides

Recommended Operating Conditions

Parameter	Recommended Range
pH	7.5 – 8.8
Temperature	≤ 50°C
Cycles of Concentration	3 – 6
Conductivity	1500 µs
$CaCO_3$	> 95%

Note:
A 100CT provides optimum corrosion and scale inhibition when the system pH is maintained within the recommended operating range

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6. PACKAGING

Available in:

25 kg HDPE drums

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7. STORAGE & SHELF LIFE

Store in tightly closed original containers in a cool, dry, well-ventilated area away from direct sunlight.

Recommended storage temperature: 0 – 32°C.
Protect from freezing. If frozen, thaw completely and mix thoroughly before use.

Shelf Life: 24 months under recommended storage conditions.
