TECHNICAL DATA SHEET

BTA GUARD

Copper Corrosion Inhibitor (Benzotriazole / Azole Blend) for Industrial Water Systems

1. PRODUCT DESCRIPTION

BTA GUARD is a liquid copper corrosion inhibitor based on Benzotriazole (BTA) and azole blend chemistry, specifically formulated to protect copper and copper alloys from corrosion in industrial water systems. The product forms a protective molecular film on metal surfaces to minimize corrosion, staining, and metal degradation.

Designed for use in:
• Cooling towers
• Closed cooling loops
• Boiler condensate systems
• Industrial process water systems

2. MECHANISM OF ACTION

BTA GUARD adsorbs onto copper and copper alloy surfaces forming a stable protective film that reduces corrosion and metal attack.

Corrosion Protection:
Protects copper, brass, and bronze components against oxidation and galvanic attack.

Film Formation:
Forms a passive barrier film to reduce metal dissolution.

System Protection:
Helps reduce metal fouling and extends equipment life.

3. APPLICATION & DOSAGE

Method of Application
Continuous dosing using metering pumps or batch dosing depending on system requirements.

Typical Dosage Range:

- Initial Dose: 10 – 50 ppm
- Maintenance Dose: 1 – 10 ppm

Dosage depends on:

- System metallurgy
- Water chemistry
- Oxidizing biocide level
- Temperature and pH

Monitoring:

- Copper corrosion rate
- Residual inhibitor testing
- Visual inspection of copper surfaces

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4. TYPICAL PHYSICAL & CHEMICAL PROPERTIES

- Appearance: Amber to light yellow liquid
- Odor: Mild characteristic odor
- pH (as supplied): 8 – 10
- Specific Gravity @ 25°C: 1.05 – 1.15
- Active BTA Content: 10 – 15%
- Solubility: Completely soluble in water
- Flammability: Non-flammable

5. COMPATIBILITY

Material Compatibility:

- Copper
- Brass
- Bronze
- Stainless steel
- PVC / HDPE dosing systems

Chemical Compatibility:
Compatible with most cooling water treatment chemicals under controlled dosing.
Avoid excessive oxidizer concentrations without control.

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6. PACKAGING

Available in:

- 25 kg HDPE drums

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7. STORAGE & SHELF LIFE

- Store in cool, ventilated area
- Protect from sunlight
- Recommended storage temperature: < 35°C

Product decomposes over time (loss of chlorine strength)

Shelf Life: **Up to 12 months under proper storage conditions**