TECHNICAL DATA SHEET

Steam Guard

Neutralizing Amine – Condensate & Steam System Protection

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1. PRODUCT DESCRIPTION

Steam Guard is a professionally formulated neutralizing amine designed for pH control in steam and condensate systems.

Steam Guard contains a blend of volatile neutralizing amines designed to control condensate corrosion in steam and condensate systems.

Steam Guard is used to:

• Neutralize acidic condensate in steam lines
• Protect piping, valves, and equipment from corrosion
• Provide uniform protection throughout the condensate network
• Maintain system pH within non-corrosive range
• Minimize conductivity increase while adjusting pH

Suitable for:

• Steam systems (low to medium pressure)
• Condensate return lines
• High-pressure hot water (HPHW) systems

Not recommended for direct food contact applications.

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2. MECHANISM OF ACTION

Steam Guard acts by:

• Reacting with carbonic and other acidic condensates
• Distributing volatile amine vapors throughout the steam/condensate network

• Maintaining a protective alkaline film on metal surfaces
• Reducing corrosion risk in return lines, valves, and heat exchangers

This ensures long-term protection and uniform pH control throughout the system.

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3. APPLICATION & DOSAGE

Application: Continuous treatment of boiler feed water and condensate systems.

Typical Dosage: Determined on-site based on:

• Feed water pH
• Condensate return temperature/volume/pH
• Make up volume/quality
• Boiler operating pressure
• Type of boiler feed tank
• Decomposition

Injection Method:

• Direct injection into feed water make-up
• Compatible with phosphate and oxygen scavenger treatments

No special boiler shell dosing point is required due to high volatility and uniform distribution.

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4. TYPICAL PHYSICAL & CHEMICAL PROPERTIES

Form: Liquid
Appearance: Clear, colorless liquid
Odor: Mild amine
Specific Gravity @ 25°C: 0.99 approx.
pH (Neat): 10 – 11
Solubility: Completely soluble in water
Flash Point: 54°C
Flammability: Low

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5. COMPATIBILITY

Compatible with:

- Carbon Steel
- Mild Steel
- Stainless Steel
- Cast Iron

Avoid mixing with strong acids or oxidizing agents.

Target Operating Range

Parameter	Range
Condensate pH	8.3 – 9.2
Feedwater pH	8.0 – 9.5
CO_2 control	Neutralized
Pressure	up to 60 bar

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6. PACKAGING

Available in:

- 25 kg HDPE drums

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7. STORAGE & SHELF LIFE

Store in sealed containers in a cool, dry, ventilated area.
Protect from freezing and direct sunlight.

Shelf Life: 24 months under recommended storage conditions.
