



STEAMATE™ PAS2150 Oxygen Scavenger/Condensate Treatment

- Combines the corrosion protection of neutralizing amines with the metal conditioning of an organic oxygen scavenger
- Uses a selected blend of neutralizing amines to provide optimal distribution throughout complex condensate systems
- Contains Diethylhydroxylamine (DEHA)
- Volatile organic scavenger allows for condensate oxygen control with feedwater product application
- Protects and conditions metals against corrosion
- Reduces condensate iron and copper levels, increasing the quantity and quality of reusable condensate and minimizing waste
- Reduces feedwater iron and copper, increasing boiler efficiency and reliability
- Acceptable for use in paper mills where paper/paperboard may contact food.

DESCRIPTION AND USE

STEAMATE™ PAS2150 is an aqueous blend containing a combination of neutralizing amines and an organic oxygen scavenger. STEAMATE PAS2150 products will not contribute inorganic solids to the steam, condensate, or boiler feedwater.

STEAMATE PAS2150 has been specially formulated for control of condensate system corrosion and to aid in the conditioning of metal in condensate and boiler feedwater systems. The products are suitable for use in paper mills where the paper or paperboard may contact food. It is not acceptable for use in systems that have direct food contact with steam or for systems where steam is used for humidification.

TYPICAL APPLICATIONS

Condensate corrosion products are one of the major contributors to deposition in boiler feedwater heaters, economizers, and boiler internal surfaces.

Condensate corrosion is primarily caused by the presence of carbon dioxide and oxygen. Feedwater alkalinity decomposes in the boiler to produce carbon dioxide, which evolves into the steam. This gas dissolves into the condensate to produce carbonic acid, lowering the condensate pH and producing metal loss.

Oxygen is found in condensate systems primarily because of air leakage into the system through condensers and transfer pumps. Once in the condensate system, oxygen attacks metal through a pitting corrosion mechanism. The metal oxides produced through condensate corrosion can return to the boiler in the feedwater system, where they may deposit on economizer and boiler internal surfaces. Deposits of metal oxides impede heat transfer and cause metal overheating and failures. If the corrosion problem in selected condensate streams is severe, the streams are frequently sent to waste instead of being returned to the feedwater system. This increases the demand and operating costs for the influent treatment and waste treatment systems.

In order to fight the two major causes of condensate corrosion, STEAMATE PAS2150 combines a blend of neutralizing amines to counteract the acid produced by dissolved carbon dioxide with an organic oxygen scavenger to reduce corrosion from dissolved oxygen. By combining the power of neutralizing amines and an oxygen scavenger, STEAMATE PAS2150 helps to condition metals, providing a protective, passivated state.

In order to protect against carbonic acid corrosion throughout a condensate system, STEAMATE PAS2150 is a unique blend of neutralizing amines, chosen for their ability to distribute throughout complex steam and condensate systems, and for their superior capacity to neutralize acids and elevate condensate pH.

STEAMATE PAS2150 utilizes an organic oxygen scavenger and metal conditioner. The oxygen scavenger reacts with oxygen to minimize pitting and corrosion, and promotes the formation of protective iron oxide in the condensate system. Once the protective metal oxide layer is formed, continued feed of STEAMATE PAS2150 helps to maintain it. The results are improved corrosion control and a reduced level of corrosion products in the boiler feedwater.

Improved corrosion control reduces the potential for boiler tube failures, and the need to dump condensate to waste. It also minimizes energy and maintenance costs associated with corrosion-related failures of piping, exchangers, and steam traps. Improved feedwater quality can also provide increased cycles of concentration in boiler systems, which means saving water, chemicals, and energy.

TREATMENT AND FEEDING REQUIREMENTS

Feed Point - STEAMATE PAS2150 can be fed to the feedwater, main steam header, or condensate system for system-wide effectiveness.

Feedrate - Control is based upon a combination of boiler feedwater alkalinity, system metallurgy, and amount of returned condensate. Your GE Netz representative will assist you in determining an optimal feedrate for your system. STEAMATE PAS2150 should be fed continuously.

Dilution - These products can be fed neat or diluted to any convenient feeding strength. Good quality condensate or demineralized water should be used for dilution.

Equipment - Chemical feed tanks and storage tanks should be mild or stainless steel. Mild steel pumps, valves, and feedlines are acceptable.

Elastomers and Plastics - This product is not compatible with PVC, nylon, natural rubber, butyl rubber, Buna N, Buna S, urethane, Tygon, or Viton. The product is compatible with Teflon and polypropylene.

PACKAGING INFORMATION

STEAMATE PAS2150 is a liquid blend, available in a variety of containers and delivery methods. Contact your GE Netz representative for details.

SAFETY PRECAUTIONS

A Material Safety Data Sheet containing detailed information about this product is available upon request.

