



Steamate™ NF4630 Condensate Corrosion Inhibitor

- Reduces condensate corrosion and iron levels
- Reduces boiler feedwater iron
- Extends life of condensate system

DESCRIPTION AND USE

Steamate™ NF4630 is a blend of a straight-chain primary filming amine and a neutralizing amine, fed to reduce condensate corrosion. The product provides a protective film on metal surfaces to inhibit penetration by corrosive substances. Steamate NF4630 is effective for the control of condensate corrosion. A major advantage from its use is a reduction in feedwater iron (Figure 1).

When applied to the boiler condensate system, Steamate NF4630 protects metal surfaces from corrosion caused by oxygen and carbon dioxide. The primary filming amine forms a film between the metal and the condensate, thus restricting the damaging effect of the dissolved gases.

Condensate corrosion is primarily caused by the presence of carbon dioxide and oxygen in the steam. Feedwater alkalinity decomposes in the boiler to produce carbon dioxide which evolves with the steam. This gas dissolves in condensate to produce carbonic acid. Oxygen is present in the steam due to improper deaeration or air leakage into the system. Both gases can result in damaging metal loss.

Steamate NF4630 provides a primary filming amine that, when applied to a condensate system, establishes a monomolecular protective barrier. The nonwetable metal surface is thus protected from oxygen or carbonic acid attack. Steamate NF4630 also contains a neutralizing amine which serves to evenly distribute the film which produces uniform protection.

TREATMENT AND FEEDING REQUIREMENTS

Feed Steamate NF4630 continuously and directly to the steam using a stainless steel injection nozzle. Injection into feedwater or boiler water is acceptable under certain circumstances (steam header feed point is highly recommended).

Use in accordance with control procedures GE Betz establishes for a specific condition. Rates can range between 10 and 20 ppm (mg/L).

Use warm condensate (80 to 125°F [27 to 52°C] to dilute to 1 to 10 percent solution. Do not use raw water or boiler water. Do not mix with reducing agents.

Feed equipment should be all stainless steel. Filming amines should be fed using the injection nozzle for vapor streams.

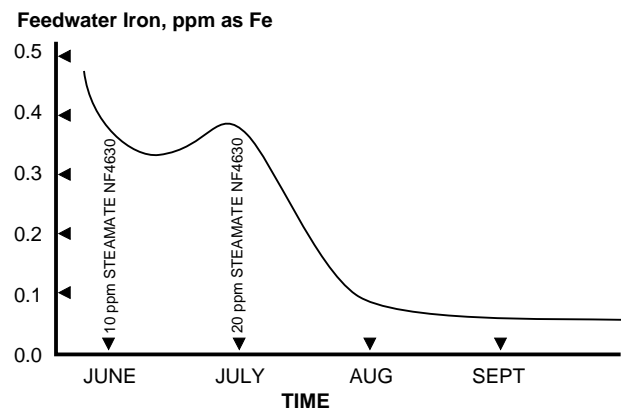


Figure 1: Results of iron tests for feedwater samples emphasize the effectiveness of Steamate NF4630 for cleanup.

GENERAL PROPERTIES

Physical properties of Steamate NF4630 are shown on the Material Safety Data Sheet, a copy of which is available on request.

PACKAGING INFORMATION

Steamate NF4630 is a liquid blend, available in a wide variety of customized containers and delivery methods. Contact your representative for details.

STORAGE

Store the product in a ventilated place, away from heat or open flame.

SAFETY PRECAUTIONS

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