

# Steamate\* NA2380

## Condensate Treatment

- Reduces condensate corrosion
- Reduces maintenance costs
- Improves boiler system reliability
- Reduces feedwater iron and copper levels
- Effectively boosts pH in boiler systems with high alkalinity feedwater
- Approved for use in Health Canada and Agriculture Canada Regulated applications

### Description and Use

Steamate NA2380 is a blend of water-soluble neutralizing amines designed to meet the needs of large and complex boiler steam and condensate systems. Steamate NA2380 is formulated to chemically neutralize acidic condensate and protect all parts of the condensate system.

### Typical Applications

Steamate NA2380 inhibits corrosion in condensate systems by neutralizing acidic species and elevating pH to levels which are not aggressive to mild steel and copper. Iron levels in the condensate are reduced and equipment life and reliability are increased.

Carbon dioxide is a major cause of corrosion in condensate systems. Carbon dioxide in condensate results from the breakdown of feedwater carbonate alkalinity in the boiler. When steam condenses, the gas dissolves in the water phase to form carbonic acid. Carbonic acid depresses the pH of condensate, resulting in significant metal loss. The damage typically appears as general thinning or grooving along the bottom walls of horizontal pipes. If the attack is severe enough, failures will occur in piping, vessels and heat exchange equipment. This

results in costly equipment replacement, maintenance and production losses. Furthermore, iron and copper returned to the boiler from condensate can cause deposition in boilers, thus increasing the chances of overheating failures.

Corrosion in steam condensate systems is controlled by the addition of volatile neutralizing amines. Steamate NA2380 contains two neutralizing amines specifically selected to provide an optimum treatment performance in a wide variety of conditions and complex systems. The Steamate NA2380 formulation provides the desired volatility, neutralizing capacity, and basicity to provide system wide protection while offering a significant reduction in operating costs over traditional amine blends.

### Treatment and Feeding Requirements

**Feedpoint:** Steamate NA2380 may be fed to the deaerator storage section, feedwater line, steam drum or steam header. It can be fed along with most other internal treatment chemicals. Check with your GE representative to determine specific compatibility with other GE treatment chemicals.

In some systems, supplemental (satellite) feedpoints may be required to provide optimum system protection. This is especially true in complex multi-pressure steam systems with flash tanks and high alkalinity boiler feedwater. Your GE representative will recommend the most appropriate feedpoint for your particular system.

**Feedrate:** Control is based on condensate pH. For best results, Steamate NA2380 should be fed continuously.

**Dilution:** Use condensate or demineralized water to dilute to a convenient feeding strength.



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**Feed Equipment:** Mild steel or polyolefin mix tanks and pumps are acceptable for storing, diluting and injecting Steamate NA2380.

## General Properties

Physical properties of Steamate NA2380 are shown on the Material Safety Data Sheet, a copy of which is available upon request.

## Packaging Information

Steamate NA2380 is a liquid blend, available in a variety of containers and delivery methods. Contact your GE representative for details.

## Storage

Store Steamate NA2380 at moderate temperatures and protect from freezing. If frozen, thaw completely and mix thoroughly prior to use.

## Safety Precautions

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