

Steamate* LSA1700 Series

Refinery Steam Condensate Corrosion Inhibitor

- Proprietary volatile amine blend optimized for refinery systems to minimize the potential for corrosive amine salts in crude distillation and refinery process units
- Dual corrosion protection feature with neutralizing amine package and unique Polyamine surface corrosion inhibitor provide enhanced corrosion protection in problem areas such as reboilers and flash steam circuits
- Facilitates program cost optimization by enabling effective corrosion protection without excessive pH elevation
- Polyamine inhibitor has similar volatility to neutralizing amines and provides complete system coverage from a single feed point to the deaerator storage section or feedwater system
- Concentrated blend for optimum use-cost efficiencies

Description and Use

Steamate* LSA was developed utilizing a combination of the latest advancement of GE's exclusive LoSalt* simulator software and our proprietary Condensate Modeling System. The proven neutralizing amines in this technology were chosen for both optimum cost-performance to treat the refinery steam system and compatibility with the refinery crude distillation process. Specifically, the amines were selected to minimize the potential for formation of corrosive chloride salt deposits where steam is used in crude processing.

Steamate LSA protects steam condensate and feedwater contacted metal surfaces from corrosion via multiple mechanisms. The volatile Polyamine corrosion inhibitor forms a barrier film on all metal

surfaces. In combination with pH elevation from amines, the feedwater surfaces, internal boiler, steam path, condenser and condensate return piping are protected from multiple corrosion mechanisms, including dissolved oxygen, carbonic acid and other acidic contaminants, and flow-accelerated corrosion.

Steamate LSA contains all volatile components. Unlike older filming technology, the Polyamine is very volatile, even at low boiler and steam pressures. From a single feedwater feed point, Polyamine will readily volatilize from the boiler and reach all areas of the steam condensate system including low pressure areas and areas receiving letdown or flash steam (e.g. reboilers).

The dual alkalinizing and surface film mechanisms of corrosion protection can provide optimum cost-performance by enabling effective system protection at reduced overall feed rates versus neutralizing amine technology alone. In addition, in systems with effective mechanical or thermal deaeration, the oxygen corrosion protection provided by this technology can reduce the requirements for dissolved oxygen scavengers.

Typical Applications

Steamate LSA is designed for application to steam boilers in refinery applications. This technology is not approved for use where the steam contacts food products or is used for direct humidification of indoor air.

Treatment and Feeding Requirements

Feed Point – Steamate LSA is designed to be fed neat (undiluted) into the storage section of the deaerator below the waterline.



Find a contact near you by visiting www.gewater.com and clicking on "Contact Us".

* Trademark of General Electric Company; may be registered in one or more countries.

©2014, General Electric Company. All rights reserved.

Feedrate – Use in accordance with control procedures GE establishes for a specific system.

Dilution – Steamate LSA must be fed neat, and should be fed directly out of the shipping container. It is not designed for dilution or blending with other treatment products.

Product Monitoring – The Polyamine filmer concentration can be tested throughout the steam condensate system to help optimize the LSA feedrate. See procedure AP852, AP853, or AP854.

Physical and Chemical Properties

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

Packaging Information

Steamate LSA is a liquid blend supplied in a variety of consumer packages. Contact your GE representative for details.

Storage

Store Steamate LSA at moderate temperatures (45 to 100 °F, 7 to 38 °C) in a ventilated location and protect from freezing.

Safety Precautions

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