

OptiSpense* HTP0451

Water Technologies & Solutions fact sheet

- Advanced boiler polymer
- Incorporates the patented HTP-2 boiler polymer
- Protection against metallic oxide deposition
- Environmentally preferred product
- Liquid Formulation

description and use

OptiSpense HTP0451 is a liquid formulation based on the advanced, patented HTP-2 polymer technology.

HTP-2 is the most effective boiler deposit control agent for (iron/copper) oxides yet developed. It is effective at boiler operating pressures up to 1500 psig (105 Kg/cm²).

OptiSpense HTP0451 incorporates an inert tracer in order to monitor the appropriate boiler water concentration.

Separate feed of an oxygen scavenger and neutralising amine may be required to give a complete internal treatment programme.

problem description

Deposition reduces efficiency and is the principal cause of overheating and caustic corrosion failures. Iron and copper corrosion products returning with the condensate are the major deposit-forming contaminants. Systems with high purity feedwater or high percentage condensate return typically experience iron and copper feedwater contamination.

These systems frequently operate at high cycles of concentration; this results in long residence times and can increase the rate of metallic oxide deposition.

The presence of iron and copper in the feedwater must be controlled in order to minimise the accumulation at boiler heat transfer surfaces.

typical applications

When metallic oxides enter the boiler, the HTP-2 polymer is highly effective in dispersing them. OptiSpense HTP0451 inhibits deposition through crystal structure and surface charge changes. The polymer will adsorb onto the metal particles, control their growth, alter surface charge and inhibit deposition on heat transfer surfaces. The result is that the solids are easily removed from the boiler water by blowdown.

OptiSpense HTP0451 should be used as part of a coordinated phosphate/pH based program in order to effectively control boiler deposition and prevent losses associated with boiler tube failure.

OptiSpense HTP0451 is particularly effective in high purity/high pressure systems where iron is the dominant contaminant.

treatment and feeding requirements

feed point - Normally to the boiler steam drum via a separate chemical injection line, and fed on a continuous basis.

In certain cases it may be acceptable to feed the product to the deaerator storage section or the boiler feedwater line. Consult your local SUEZ Representative.

feed rate - The feed rate of OptiSpurse HTP0451 is determined by system conditions, such as boiler pressure feedwater quality and cycles of concentration.

dilution - OptiSpurse HTP0451 can be fed neat or diluted in any proportion with good quality feedwater or condensate. When the product is fed direct to the boiler drum it must be diluted.

general properties

The physical properties of OptiSpurse HTP0451 are shown on the Safety Data Sheet, a copy of which is available on request.

packaging information

OptiSpurse HTP0451 is a liquid blend and is available in a wide variety of customised containers and delivery methods. Contact your SUEZ representative for details at www.suezwatertechnologies.com.

safety precautions

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

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