

# OptiGuard\* MCP0021

## all-in-one treatment

- Unique liquid formulation provides complete boiler treatment in a single product
- Blend of highly effective polymeric dispersants with an organic sequestering agent
- Superior control of deposit formation
- Controls oxygen corrosion in feedwater system and boiler
- Unique neutralizing amine blend provides effective system-wide protection

## description and use

OptiGuard MCP0021 is a unique liquid blend of an oxygen scavenger, internal, and condensate treatment. It provides a complete boiler system treatment in a single, easily fed, liquid product.

OptiGuard MCP0021 contains sodium sulfite to control dissolved oxygen corrosion in the preboiler and boiler systems. Even with an effective deaerating heater, sufficient dissolved oxygen can remain in the feedwater to cause serious corrosion damage. At high temperatures, oxygen causes pitting, which is dangerous because of its stationary, highly localized nature. If a day tank is used, the tank should be covered for best scavenging results.

OptiGuard MCP0021 also contains a unique blend of polymeric dispersants and an organic sequestering agent for control of scale formation on internal boiler surfaces. It provides a complete internal treatment program that is highly effective in preventing the formation of both hardness and metal oxide deposits.

The specific blend of deposit control agents in OptiGuard MCP0021 maintains cleaner internal boiler surfaces through several mechanisms. First, the

growth of scale-forming deposits is inhibited by distortion of the crystal lattice. Second, alteration of the surface charge of suspended particles prevents their attachment to other particles and to boiler surfaces. The result is a colloidal suspension of small particles which are readily removed by blowdown. In addition, the organic sequestering agent has the ability to solubilize cationic contaminants, such as calcium and magnesium. These are removed in soluble form in the blowdown.

OptiGuard MCP0021 contains a blend of neutralizing amines with selected stability and volatility characteristics. When fed to the boiler, the amines rapidly volatilize with the steam and prevent corrosion by neutralizing carbonic acid in the condensate. The unique characteristics of this amine blend provide controlled protection at points of initial condensation and in extended areas of complex condensate systems. This reduces corrosion of both iron and copper surfaces, which extends equipment life and increases the efficiency of heat exchange equipment. The return of corrosion products to the boiler is also reduced, significantly reducing the potential for scale formation.

## treatment and feeding requirements

Proper treatment levels for OptiGuard MCP0021 depend on many factors particular to a given installation. The product should be used in accordance with control procedures that SUEZ establishes for a specific application.

OptiGuard MCP0021 may be fed neat, or diluted to any convenient strength with softened makeup, condensate, or feedwater.

The preferred feed point for OptiGuard MCP0021 is to the deaerating heater storage section, feedwater

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well, or hot well. It also may be fed to the feedwater line or directly to the boiler.

### **packaging information**

OptiGuard MCP0021 is a liquid blend, available in a variety of containers and delivery methods. Contact your SUEZ representative for details.

### **safety precautions**

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