



OPTIGUARD™ MCM4277 All-in-One Treatment

- Applicable as a complete, all-in-one treatment for scale and corrosion control in low pressure boilers with low makeup conditions
- Superior control of hardness and iron deposition
- Improves boiler efficiency by maintaining cleaner heat transfer surfaces
- Maximum flexibility and forgiveness
- Convenient, safe, easy-to-apply liquid concentrate
- Contains molybdate to ensure complete corrosion protection
- Excellent for systems without a deaerator
- Contains neutralizing amine to provide effective condensate system protection
- Helps protect boiler surfaces during standby conditions

DESCRIPTION AND USE

OPTIGUARD™ MCM4277 is an advanced, multicomponent formulation that includes a unique dispersant blend, corrosion inhibitor, and neutralizing amines. It provides a complete boiler system treatment in a single, easily fed liquid concentrate.

OPTIGUARD MCM4277 controls deposit formation through two surface adsorption mechanisms: dispersion and crystal modification.

Dispersion - The patented polymer contained in this product adsorbs strongly to deposit particles and internal boiler surfaces, altering their normal surface charge properties. The attraction between particles and surfaces is greatly reduced. This inhibits both particle growth and attachment to surfaces. The result is a stabilized suspension of colloidal particles, readily removed through blowdown.

Crystal Modification - The polymer distorts the normal crystalline structure of deposit particles, so that normal growth is prevented. This prevents the formation of large, unstable particles that settle onto boiler surfaces.

OPTIGUARD MCM4277 promotes maximum boiler efficiency by preventing the formation of both hardness and metal oxide deposits on boiler heat transfer surfaces.

OPTIGUARD MCM4277 also contains molybdate to ensure passivation of the ferrous metal surfaces as well as protect against oxygen pitting in the preboiler and boiler circuits. OPTIGUARD MCM4277 is formulated to be particularly effective in systems without a deaerator.

OPTIGUARD MCM4277 contains a neutralizing amine with selected stability and volatility. Characteristics of this amine provide controlled protection at points of initial condensation and in extended areas of complex condensate systems. This extends equipment life and increases the efficiency of heat exchange equipment.

TREATMENT AND FEEDING REQUIREMENTS

Proper treatment levels for OPTIGUARD MCM4277 depend on many factors particular to a given boiler system. The product should be used in accordance with control procedures that BetzDearborn establishes for a specific application.

OPTIGUARD MCM4277 may be fed neat, or diluted to any convenient strength with softened makeup, condensate, or feedwater. The preferred feed point for OPTIGUARD MCM4277 is to either the feedwater tank or hot well.

Feed systems should be constructed of 304 or 316 stainless steel. Tanks should be high density, cross-linked polyethelene. PVC should not be used in this service.

PACKAGING INFORMATION

OPTIGUARD MCM4277 is a liquid blend, available in a variety of containers and delivery methods. Contact your GE Betz representative for details.

STORAGE

Store OPTIGUARD MCM4277 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.