



Water Treatment Program Product Offerings

STEAM BOILER TRADITIONAL PROGRAM OPTIONS:

Internal Treatment (One Drum Treatment Program):

- **ENEREX 600 (FL5549):** A complete liquid boiler water treatment product which provides complete corrosion and scale control for boiler feedwater lines, boiler internals, and condensate lines.
- **ENEREX 600S (FL8868):** A complete liquid boiler water treatment product which provides complete corrosion and scale control for boiler feedwater lines, boiler internals, and condensate lines. This product contains an elevated level of Sodium Sulfite for applications where the feedwater temperature is below 150°F.
- **ENEREX 500 (FL5427):** A highly effective scale inhibitor and contains low-molecular-weight polymers, crystal distortion agents, and sulfite. This product is non-volatile, thus providing no streamline/ condensate treatment. This product is Organic NOP compliant.
- **ENEREX 500S (FL8869):** A concentrated liquid boiler water treatment compound. It is a highly effective scale inhibitor and contains polymeric dispersants and organic scale inhibitors, as well as sulfite for boiler oxygen control. This product contains an elevated level of Sodium Sulfite for applications where the feedwater temperature is below 150°F. This product is non-volatile, thus providing no streamline/condensate treatment. This product is Organic/NOP compliant.

Internal Treatment (Multiple Drum Treatment Program):

- **ENEREX 11633 (FL11633):** A liquid formulation of polymeric dispersants and conditioning agents used to inhibit scale and corrosion in boiler water systems.
- **ENEREX 300 (FL5389):** A highly effective scale inhibitor containing low-molecular-weight polymers, crystal distortion agents, and antifoam.
- **ENEREX 400 (FL7916):** A liquid boiler water treatment, which provides corrosion and scale control for boiler feed water lines and boiler internals. This product is designed for use in boiler applications where a sole product for boiler waterside scale control is desired.
- **ENEREX 205L (FL5441):** A concentrated liquid catalyzed sulfite which reacts almost instantaneously with dissolved oxygen, even at cold water temperatures. An excellent oxygen scavenging product.
- **ENEREX 210L (FL9111):** A concentrated liquid catalyzed sodium sulfite which reacts almost instantaneously with dissolved oxygen, even at cold water temperatures. Should be fed to a boiler deaerator feedwater tank to remove dissolved oxygen.
- **ENEREX 9900C (FL9900):** A concentrated liquid sodium hydroxide-based alkalinity builder for boiler water applications.

Streamline/Condensate Treatment:

- **CHEMEEN 400 (FL9929):** A liquid ammonia-based neutralizing amine designed to provide protection against corrosion in condensate return systems.
- **CHEMEEN 330 (FL9214):** A liquid blend of volatile neutralizing amines designed to provide protection against corrosion in condensate return systems.
- **CHEMEEN 200 (FL5425):** A liquid neutralizing amine designed to provide protection against corrosion in condensate return systems.
- **CHEMEEN 5426 AC (FL11254):** A liquid blend of volatile neutralizing amines designed to provide protection against corrosion in condensate return systems. This blend of amines and different vapor/liquid distribution ratios provides complete protection to large and extensive condensate systems.

STEAM BOILER NON-TRADITIONAL PROGRAM OPTIONS:

Purified Tannins:



• **TANGUARD D (FL11664):** A proprietary liquid, highly biodegradable, non-volatile steam boiler treatment featuring purified tannins. Formulated with a defoamer, providing scale inhibition and eliminates oxygen. This formula is non-volatile.



• **TANGUARD DA (FL11679):** A proprietary liquid, highly biodegradable steam boiler treatment featuring purified tannins, defoamer, and condensate treatment.



• **TANGUARD DAC (FL11680):** A proprietary liquid, highly biodegradable steam boiler treatment featuring purified tannins, defoamer, condensate treatment. This formulation also includes treatment for steam line/condensate system corrosion inhibition.



• **TANGUARD DC (FL11678):** A proprietary liquid, highly biodegradable, non-volatile steam boiler treatment featuring purified tannins. The mechanism of corrosion protection works by forming a layer of tannins on the metallurgy surfaces. This formula is non-volatile so does not contain chemistry to treat the condensate system.

Film-Forming Amines:

• **FILMGUARD 617:** This formulation protects internal waterside surfaces through the absorption of a monomolecular film which makes it possible to avoid any contact between the water and the metal surfaces of the system, with no heat transfer losses.

• **FILMGUARD 617F:** This formulation protects internal waterside surfaces through the absorption of a monomolecular film which makes it possible to avoid any contact between the water and the metal surfaces of the system, with no heat transfer losses. This product is not recommended in plants where steam comes into direct contact with food with dairy products.

COOLING TOWER WATER TREATMENT PRODUCTS:

Scale and Corrosion Inhibitors:

• **CHEMQUEST 11608 (FL11608):** A unique blend of organic, scale and corrosion inhibitors, and polymeric dispersants. This product is designed to provide excellent scale control under extreme conditions.

• **CHEMQUEST 11596 (FL11596):** An advanced, high performance cooling water treatment, designed to provide both optimum corrosion protection and scale inhibition in open recirculating water systems. This product contains a fluorescent dye for ease of testing.

• **FILMGUARD 1025 (FCT1025):** A mix of film-forming amines and PBTC. The film-forming amine-based inhibitors protect the walls through the absorption of a monomolecular film, which makes it possible to avoid any contact between the water and the metal surfaces.

• **FILMGUARD 1025S (FCT1025S):** A mix of film-forming amines and PBTC. The film-forming, amine-based inhibitors protect the walls through the absorption of a monomolecular film, which makes it possible to avoid any contact between the water and the metal surfaces. This product is to be used strictly with soft water.

Microbicides:

• **CHEMQUEST 216 (WHCHM216):** A liquid oxidizing microbicide for the control of microorganisms in all types of commercial and industrial cooling water systems. This stabilized bromine solution provides 16% bromine and is effective over a wide pH range.

• **CHEMQUEST 211 (FL99905):** A liquid broad-spectrum microbicide for the control of microorganisms in all types of commercial and industrial open and closed cooling water systems. This isothiazolin-based microbicide is particularly effective on algae and bacteria in industrial and commercial re-circulation systems.

• **CHEMQUEST 215 (WHBCDMH):** A bromine-based oxidizing microbicide designed for the control of microorganisms in commercial and industry cooling water systems. This product offers improved worker safety and easier handling than chlorine and comes in 20g 1inch tablets.

• **JUSTEQ07 (Justeq07):** A revolutionary new biocide that penetrates into slime masses and breaks up the mass from within. This product is also compatible with scale inhibitors and copper corrosion inhibitors.



• **CDG 3000 (CDGSOL3000):** A chlorine dioxide 0.3% aqueous solution that is highly effective on microorganisms.

• **ProOXINE (Bioprooxine):** A highly refined blend of oxychloro species containing purified sodium chlorite. When activated using a GRAS acid, chlorine dioxide is produced. It can be used in water treatment systems to obtain and maintain microbial control. The uses of food and beverage processing plants are numerous and available upon request.

Non-Traditional Program Options:



• **ProMoss™ (CWPM1-EA):** Made from Sphagnum moss leaves, this product is used in cooling towers, closed loops, open loops, process loops, process water, and wastewater systems or other water systems where scale inhibition is needed. This product is a non-chemical option that reduces TDS, removes organic contamination, absorbs oil, and decreases BOD.



• **Flowmark Microbial Control System:** This water treatment disinfection system is classified as an advanced oxidation process. Oxygen is split into singlet oxygen atoms, which interact with water molecules forming hydroxyl and oxygen radicals, which trigger various chemical reactions, oxidizing contaminants including minerals and bacteria.

CLOSED LOOP WATER TREATMENT PRODUCTS:

• **CHEMGUARD CS-14 (FL6480):** A blend of corrosion, scale, and fouling inhibitors for heating and chilled closed loop systems.

• **CHEMGUARD CS-14TH (FL9160):** A blend of corrosion, scale, and fouling inhibitors for heating and chilled closed loop systems. This product does not contain dye.

• **CHEMGUARD 11617 (FL11617):** A blend of corrosion, scale, and fouling inhibitors as well as buffering aids for heating and chilled closed loop systems.

• **CHEMGUARD 5675 (FL5675):** A blend of corrosion, scale, and fouling inhibitors, as well as buffering aids for chilled water/glycol closed loop systems containing mixed metallurgy.

• **CHEMGUARD 5675F (FL11682):** A blend of corrosion, scale, and fouling inhibitors, as well as buffering aids for chilled water/glycol closed loop systems containing mixed metallurgy. Chemguard 5675F meets the requirements for GRAS.

• **CHEMGUARD 11603 (FL11603):** A blend of corrosion inhibitors and pH buffering agents designed for use in mixed metal closed loop systems, especially those that contain aluminum.

• **FILMGUARD 418 (FCT418):** A film forming amine for corrosion protection in heating and cooling water systems.

• **FILMGUARD 418A (FCT418A):** A film forming amine for corrosion protection in heating and cooling water systems. FilmGuard 418A is specifically designed for systems containing aluminum.

- **TG-3304 PM2 (WHTG3304PM2):** A purified tannin chemistry that provides corrosion and deposit control in mixed metallurgy heating and cooling systems, especially those that contain aluminum. The mechanism is via adsorption onto the metallurgy surfaces forming iron, copper, and aluminum tannate layers.

Industrial and Potable Water Reverse Osmosis Chemistries:

Antiscalants

- **AWC A102 Ultra:** A broad spectrum antiscalant inorganic scale formation such as calcium carbonate, calcium sulfate, calcium fluoride, barium sulfate, strontium sulfate, and silica. Stabilizes metal ions to prevent metal oxides precipitates, as well as dispersing silt and clay particulates. NSF60 certified.
- **AWC A107:** A broad spectrum antiscalant with enhanced inhibition of silica scales, as well as high iron. NSF60 certified.

De-Chlorination

- **SODIUM BISULFITE 38/40% NSF60 (BRESB3840):** A reducing agent to dechlorinate the feed water to protect RO membranes from degradation.

Microbiocides



- **CDG 3000 (CDGSOL3000):** A chlorine dioxide 0.3% aqueous solution that is highly effective on microorganisms.



- **CHEMCO PAA 5.6% (FL9978):** A liquid 5.6% Peracetic Acid sanitizer with high oxidation potential. Chemco PAA 5.6% has excellent bactericidal and fungicidal activity against a wide range of microorganisms in cold and warm water.

- **K-BAC 1020:** A non-potable, non-oxidizing microbiocide for RO membrane systems.