VERICHEM

TECHNICAL DATA SHEETS

VERIGUARD 88

Process Microbistat

- Broad spectrum antimicrobial
- Patented blend minimizes microbial resistance
- Non-foaming, water-based
- Compatible with all corrosion and deposit control treatments
- Contains no copper or iron stabilizers

Description

VERIGUARD 88 is a proprietary blend of antimicrobial agents, specifically formulated for a variety of industrial process applications.

These process applications include but are not limited to the following: as a preservative for pigment slurries, adhesives, selected chemicals, microbial metal control in working fluids, hydraulic fluids and oil; and/or water based industrial formulations. Also microbial control in auxiliary water systems, waste water and waste material disposal, process holding or recovery systems, and disposal wells. The product label provides a complete listing of approved end uses.

The actives in VERIGUARD 88 consist of 5.3% 2-bromo-2-nitropropone-1,3-diol (BNPD) and 2.6% Isothiazolone (1.9% 5-chloro-2-methyl-4-isothiazolin-3-one and 0.68% 2-methyl-4-isothiazolone-3-one). Compared to single-active, isothiazolin-based products, the combination of actives in VERIGUARD 88 gives better microbial control at lower dosages (see chart). This blend of actives also limits the development of resistant microbial populations and eliminates the need to alternate products to maintain microbiological control.

VERIGUARD 88 is water-based to minimize impact on the environment. It contains no metal based stabilizers, such as copper or iron. The Environmental Fate and Effects (aquatic toxicity and biodegradation) data package for this product is listed on the Material Safety Data Sheet.

Dosages required to achieve 90% inhibition of various microbes

VERIGUARD 88 is registered for control of a wide range of microbial species, including aerobic bacteria, anaerobic bacteria, algae, yeast, and fungi. Control of microbiological populations in industrial process systems is essential to prevent biofouling. In process systems, biofouling of critical heat exchange equipment can reduce heat transfer efficiency and can force unscheduled shutdowns and extended turnarounds leading to lost production. Biofouling can also damage equipment through microbiologically influenced corrosion (MIC). As a result of these effects, biofouling must be prevented in order for operating units to achieve profitability goals.

VERIGUARD 88 Environmental Features

- Noncombustible
- Free of glycols, oils, and organic solvents • Biodegradable
- Drumless delivery service available
- Copper stabilizer for isothiazolone eliminated
- Reduced BOD and COD

VERIGUARD 88 has been formulated in a waterbased solvent system, eliminating BOD and COD associated with solvents, such as glycol and oils. A water-based formulation is also safer to store and handle than a solvent-based formulation.

Treatment and Feeding Requirements

This product may be fed using a PaceSetter Plus* or PaceSetter* Model E Control System.

General Properties

Physical properties of VERIGUARD 88 are shown on the Material Safety Data Sheet, a copy of which is available on request.

Packaging Information

VERIGUARD 88 is available in 45 pound pail, 500 pound plastic drum and 2400 pound disposable tote bin.

Storage

Protect from freezing. If this product is frozen during shipment or storage, slight mixing may be required to insure homogeneity.

Correct treatment levels and frequency of VERIGUARD 88 addition depend on many factors. They include, but are not limited to, system cleanliness, nutrient concentrations, temperature, types of microorganisms, pH, retention time, and other system operating characteristics. Consult the product label for general dosage guidelines. Microbiological monitoring is recommended to evaluate product requirements. Consult your VERICHEM, Inc. representative for technical advice about your specific application.

Safety Precautions

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

In all cases, this product must be applied in accordance with use instructions on the VERIGUARD 88 label.

Feed point

VERIGUARD 88 should be applied to a point in the process system where turbulence and flow patterns assure good mixing with the water being treated.

Dilution

This blend is best fed neat (undiluted) from the storage container.

Compatible Materials

VERIGUARD 88 is compatible with most plastics, such as polyvinylchloride (PVC), high density, cross-linked polyethylene (HDPE), polypropylene (PP), and Teflon (PTFE). (Teflon is a registered trademark of DuPont.)

Avoid: mild steel, copper and copper alloys, aluminum, galvanized metals, 304 stainless steel, and thin-wall 316 SS tubing.

Regulatory information

FDA Approvals: VeriGuard 88 has FDA approval under 21 CFR 176.170 (paper-wet food contact), 176.180 (paper-dry food contact) and 176.300 (slimicides). US EPA Reg. # 3876-151-67869

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