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**Product
Bulletin**

ALGIMYCIN – PWF **ALGICIDE/BACTERICIDE** **FOR WATER SUPPLY SYSTEMS**

APPLICATION

ALGIMYCIN-PWF is an innovative, low pH algicide/bactericide designed for use in lakes, ponds, reservoirs, irrigation canals, treatment lagoons, and other water systems.

ALGIMYCIN-PWF is a dark blue solution. It relies on a high concentration of biologically active copper ions (Cu⁺⁺) to control algae and bacterial pollution. Until they encounter their targets, these copper ions remain suspended indefinitely in water without settling out or adding to bottom sediment. This environmentally responsible product is nontoxic to humans or fish when used as directed.

ALGIMYCIN-PWF is registered by the US Environmental Protection Agency (EPA) as an algicide/bactericide. Additionally, **ALGIMYCIN-PWF** is certified to ANSI/NSF Standard 60 for addition to drinking water.

THREE MOST WIDELY USED FORMS OF COPPER FOR ALGAE CONTROL

Copper sulfate is most commonly used because it is the cheapest product pound per pound. However, it is also the least effective. Copper sulfate must be converted to cupric ion to be effective in killing algae and bacteria. Cupric ions are the biological active form of copper that actually attach to and interrupt the survival of algal and bacterial cells. **Copper has little effect unless converted to the cupric ion.** With copper sulfate there are many factors that control the conversion rate, which can be as low as 1 or 2 per cent or as high as 20 to 25 percent, the conversion rate varies with each treatment. If conversion is low, it is difficult to get ahead of the "bloom". Alternately, if the conversion rate is higher than anticipated, you may kill more than expected and cause other detrimental effects. Without extensive chemical analysis it is difficult to determine the conversion rate of copper sulfate to cupric ion.

Since copper sulfate is a solid material, it requires substantial agitation to dissolve. Even when completely dissolved prior to use, the material tends to fall out of solution and settle to the bottom. When it reaches the bottom, it becomes part of the sediment, creating environmental concerns.

Chelated copper products are an improvement over copper sulfate. First, they are liquid. Second, they stay in solution longer. When making a copper chelate, a manufacturer must choose between a strong chelant and a weak chelant. The strong chelant will hold the cupric ion strongly, but may not release the cupric ion when it comes in contact with algae. The weak chelant is designed to readily give up the cupric ion, but will only be effective in a narrow range of water conditions. Additionally, the cupric ion may be released too easily and precipitate to the bottom.

ALGIMYCIN-PWF's base carrier is the unique component which sets it apart from any other copper product on the market today. **ALGIMYCIN-PWF** is held in solution and readily available to kill algae and bacteria. This allows the opportunity to prevent a bloom from developing rather than treating it after development. Using **ALGIMYCIN-PWF** at algistic treatment levels can dramatically reduce the amount of copper needed to control algae. It is possible to **DO MORE WITH LESS!**

APPLICATION LEVELS

Determine system volume and target organisms, then calculate treatment levels in accordance with label instructions.

Seller Warranty

Applies to all products sold by CH₂O, Inc., and is hereby communicated to all of its customers as a condition of sale.

Seller warrants that this product conforms to its chemical description and is reasonably fit for the purpose referred to in the directions for use when used in accordance with the directions under normal conditions. Buyer assumes the risk of any use contrary to such directions. Seller makes no other warranty or representation of any kind, express or implied, concerning the product, including **NO IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS OF THE GOODS FOR ANY OTHER PARTICULAR PURPOSE.** No such warranties shall be implied by law and no agent of seller is authorized to alter this warranty in any way except in writing with a specific reference to this warranty. The exclusive remedy against seller shall be a claim for damages not to exceed the purchase price of the product, without regard to whether such a claim is based upon breach of warranty or tort. Jurisdiction for any issues arising from or relating to this product shall be in the courts of the State of Washington and the venue shall be Thurston County. Any controversy or claim arising out of or relating to this contract, or breach thereof, shall be settled by arbitration in accordance with the rules and procedures as stated in RCW 7.06 and shall be binding upon both parties without right to appeal, and judgment upon the award rendered by the Arbitrator(s) may be entered in any court having jurisdiction thereof.

March 26, 2008