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# BIO MAX 15 BIO-GUARD TREATMENT FOR COOLING TOWERS & AIR WASHERS

### APPLICATION

Cooling towers provide a near-ideal environment for microbial proliferation. Warm water temperatures, nutrients, and constant exposure to the surrounding air encourage growth and virtually assure ongoing contamination by microorganisms. The U.S. Public Health Service Center for Disease Control & Prevention (CDC) has identified some of these organisms to cause human illness or death. OSHA Technical Manual Section II - Chapter 7 states that biocide control of such organisms is needed.

Unchecked microbial growth may also cause a rapid loss of heat-transfer efficiency by fouling piping, nozzles, packing, process heat exchangers, and drift eliminators. Growth under deposits or slime masses can yield accelerated localized corrosion of system metal components. These problems, due to growth and development of algae, bacteria, and fungi greatly reduce efficiency in a system and significantly increase operating costs.

Microbial organisms in nature vary considerably as a hazard to human health and in susceptibility to any particular bactericide. CH<sub>2</sub>O's **BIO-GUARD** series offers a wide variety of biocide products, which have been shown effective against microorganisms found in cooling tower waters.

**BIO MAX 15** is 1,5-Pentanedial (Glutryaldehyde).

**BIO MAX 15** aids in controlling microbial growth in water cooling towers, air-washers, pasteurizers, and other circulating water systems. It is effective over a wide pH and temperature range and is non-foaming. **BIO MAX 15** is noncorrosive and does not contain heavy metals.

### SAFETY & HANDLING PROCEDURE

When handling **BIO MAX 15**, it is important to avoid contact with the liquid and inhalation of the vapors. Protective gloves, face shield or vapor-proof goggles, coveralls, and suitable respiratory protection should be worn. An eye bath and shower facility should be provided.

### DOSAGE & CONTROL

**Intermittent Method:** Initially apply 4.2 to 8.5 fluid ounces of product per 100 gallons of water in the system. Repeat until control is achieved. Add 1.7 to 4.2 fluid ounces of product per 100 gallons of water to the system weekly, or as needed to maintain control.

**Continuous Method:** Initially apply 4.2 to 8.5 fluid ounces of product per 100 gallons of water in the system. Maintain the treatment level by starting a continuous feed of 0.8 to 4.2 fluid ounces of product per 100 gallons of water in the system per day. Badly fouled systems must be cleaned before treatment is begun.

Daily testing is recommended to maintain proper control. Failure to monitor and maintain treatment levels can cause damage. It is the customer's responsibility to monitor and maintain treatment levels with support from a CH<sub>2</sub>O sales representative.

### FEEDING TECHNIQUE

This product may be used only in industrial air washers and air washer systems, which have mist-eliminating components.

**BIO MAX 15** should be added to a water treatment system at point of uniform mixing such as the basin area. Addition may be made intermittently or continuously. Product **6143** should not be fed in conjunction with glutaraldehyde-based products such as **BIO MAX 15**.

### PHYSICAL PROPERTIES

pH ..... 3.1 to 4.5  
Pounds per Gallon ..... 8.7  
Physical Appearance ..... Light Yellow  
Odor ..... Mild  
Flash Point ..... None

### Seller Warranty

Applies to all products sold by CH<sub>2</sub>O, 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.

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